June 5, 1934. F. REMINGTON 1,961,865

COMBINATION HOUSE ILLUMINATED IDENTIFIER AND KEY HOLE LIGHT

Filed May 6, 1933

Fig. 1.

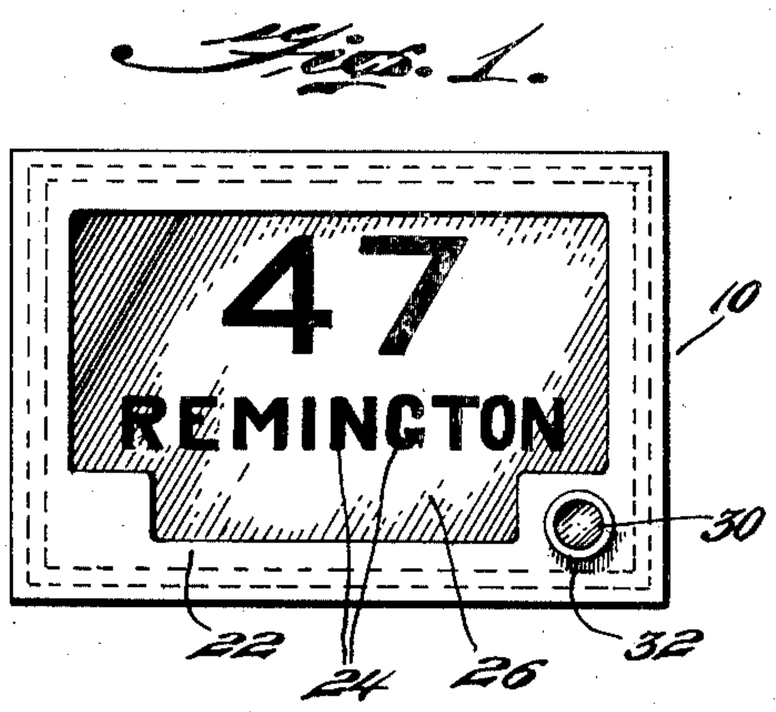


Fig. 2.

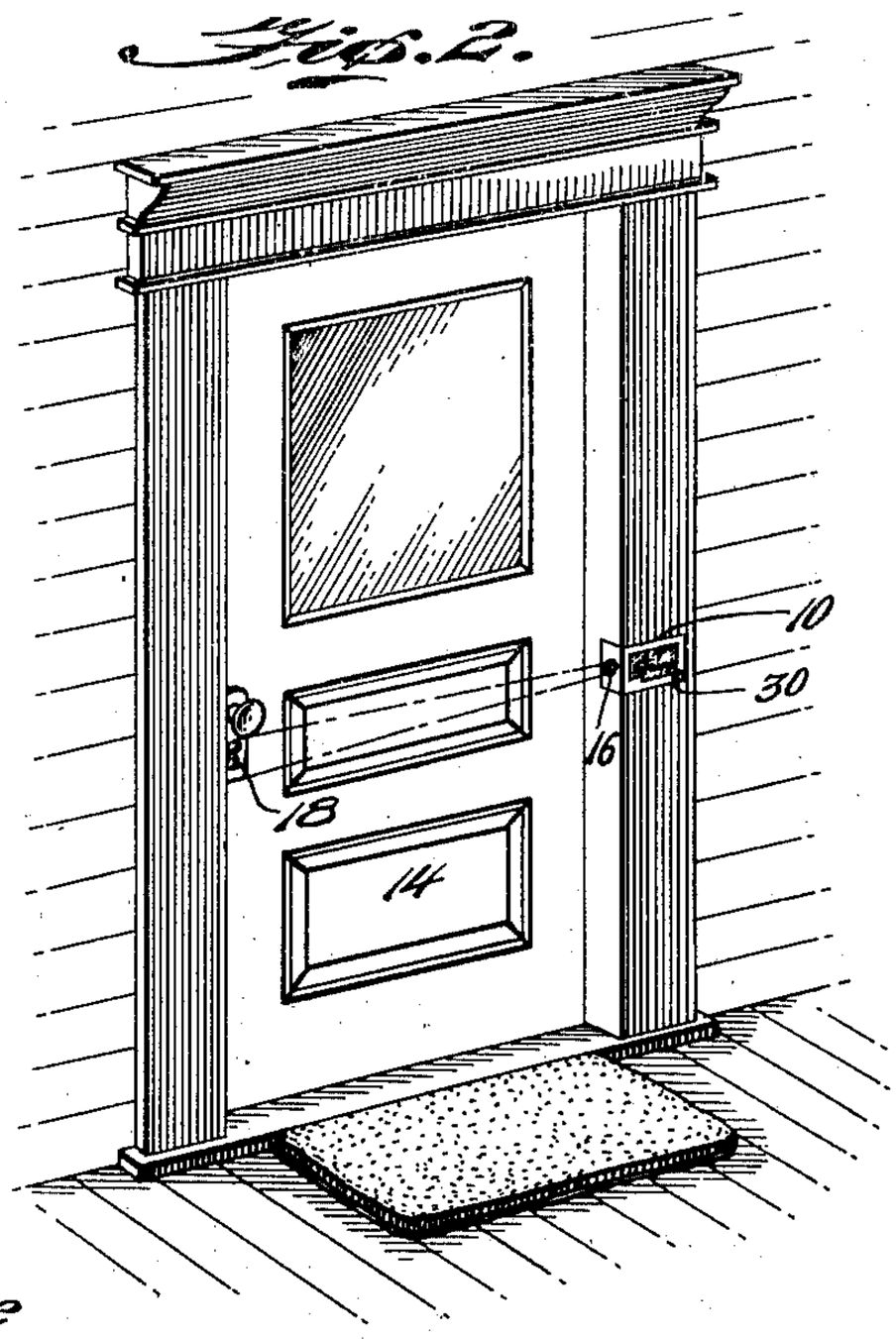


Fig. 3.

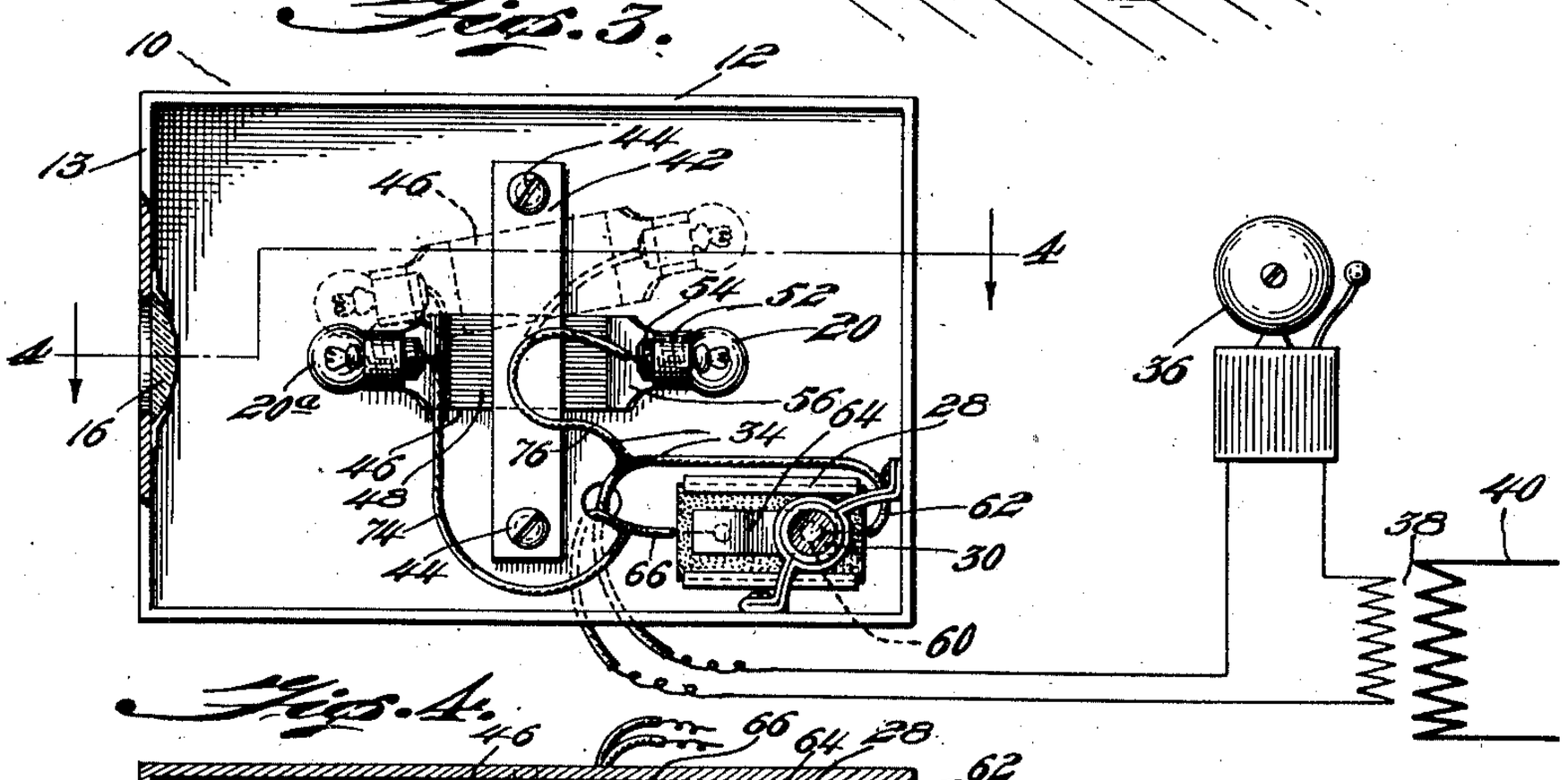
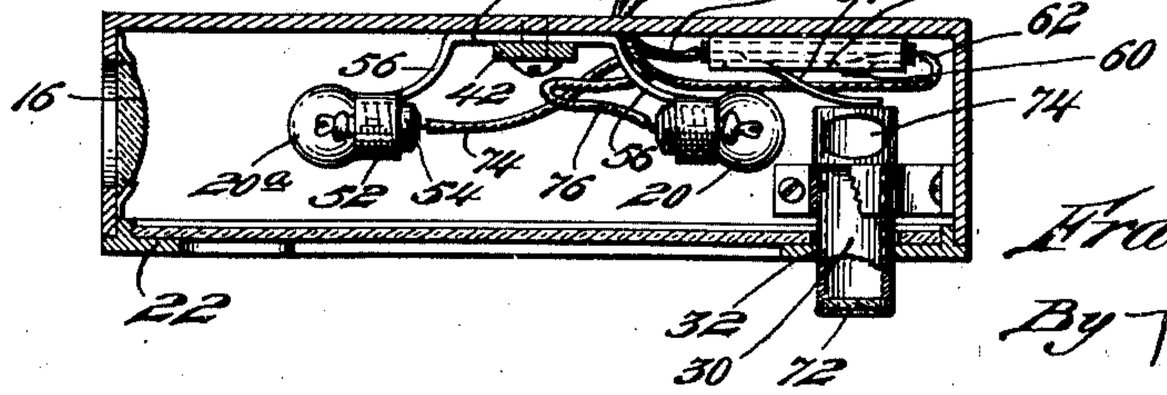


Fig. 4.



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Patented June 5, 1934

1,961,865

UNITED STATES PATENT OFFICE

1,961,865

COMBINATION HOUSE ILLUMINATED IDENTIFIER AND KEY HOLE LIGHT

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Application May 6, 1933, Serial No. 669,690

13 Claims. (Cl. 240—2.13)

My invention relates to improvements in a combination illuminated house identifier and key hole light.

In recent years there has become more and more of a demand for illuminated number plates, or house identifiers which would designate at any time of day or night the house number and/or the name of the inhabitant. There has also been a great difficulty experienced in finding key holes. The object of my invention is to provide, I believe for the first time, a combination illuminated house identifier and key hole light.

House identifiers now on the market quite usually are connected to the door bell circuit, which circuit is usually induced by the ordinary house lighting circuit through a transformer to be of low magnitude so that small lights of low resistance and employing very little current may be employed therein. It has also been discovered that the door bell circuit works better with a small amount of power if its current is also of a low magnitude. Therefore it is customary to attach the illuminated number plate to the same circuit to which the door bell is connected, which is usually a circuit of low magnitude and induced from the main house lighting circuit by means of a transformer by shunting the lamp circuit across the door bell or house identifier, it making no difference if during the ringing of the door bell the light on the house identifier becomes somewhat dim. These house identifiers have often been mounted in cases.

I am aware that others have provided lights which may on actuation of the switch by the hand or foot apply a light beam to illuminate a key hole. So far as I am aware, however, these have been connected to the main lighting circuit and have been provided with independent switches. In the dark it has been almost as hard to find the switch as it has the key hole itself. In order that the cost of furnishing a continuous light beam on the key hole may be reduced to a minimum, I believe I am the first to provide such a circuit of low amplitude and a lens interposed in the light path from the lamp thereof, so as to project a beam or lamp image directly on the key hole. By employing a lens, I am enabled to cut down the amount of the electricity continuously employed to furnish the continuous beam. I have further discovered that the requisites for these circuits are similar, namely, being of similar amplitude and I have found that such a suitable circuit for projecting a light beam onto a key hole already exists in the door bell house identifier circuit hitherto described. I therefore so modify the construction of former types as to insert a lens in the side wall of the identifier casing and mount the lamp means therein, so that it may be readily adjusted to project a beam or image through said lens directly on said key hole of sufficient intensity to at all times light up the key hole to make it clearly visible. I therefore by a slight addition to former types of house identifiers am able to provide a combination illuminated house identifier and door bell if desired and continuous key hole illuminator employing no more current than is necessary to provide a continuous house identifier and/or door bell. I believe I am the first therefore, to employ a lens in a key hole lighter which will keep the key hole lighted at all times and to provide a combination house identifier and continuous key hole light. The advantages of a continuously illuminated house identifier are self-evident, namely, providing a means so that anyone may at all times readily identify the house inhabitant from a distance and the advantages of a continuous key hole illuminator are also self-evident.

In order that the cost of running my improved device may be kept to a minimum, it is desirable to use lights of low resistance which will work on a small current and last a sufficient amount of time to give a satisfactory light. After experimenting with all types of single low resistant lamps on the market I have attained best results by employing two lamps for this purpose and have provided means to adjust the position of one of them so that it may readily project the light beam through the lens to the desired point of the key hole, thus permitting to mount my improved casing within the door casing or the door, or to hang it so that it may protrude either on the door or other adjacent portion of the house.

These and such other objects of my invention as may hereinafter appear will be best understood from a description of the accompanying drawing, which illustrates an embodiment thereof.

In the drawing, Fig. 1 is a front view of my improved combination house identifier and key hole light per se.

Fig. 2 is a perspective view of the same mounted on a door casing and illustrating how the key hole light is projected onto the key hole.

Fig. 3 is a front view of my invention with the cover removed with the wires thereon connected to the usual door bell circuit induced from the house lighting circuit by a transformer.

Fig. 4 is a sectional view taken along the line 4—4 of Fig. 3.

In the drawing wherein like characters of reference generally indicate like parts throughout, 10 generally indicates a combination house identifier and key hole light constructed in accordance with my invention. Said device includes the casing constructed of metal, fibre or other suitable material 12 adapted to be mounted near or on a door 14 and having a projecting lens 16 mounted in the side wall thereof in line with the key hole 18. I preferably mount a plurality of lamps 20 and 20ª within said casing 12 adjustable to a position to project a beam of light through said lens 16 and onto said key hole 18. I provide a cover 22 for said casing having relatively opaque and transparent portions 24 and 26, one of said portions in my preferred embodiment, the opaque portion being shaped to display house identifying insignia. In my preferred embodiment I construct my casing so that a door bell switch 28 may be mounted therein having a button 30 projecting through a hole 32 in the cover thereon to provide the usual door bell button. An electric circuit 34 is suitably connected to said lamps 20. A transformer 38 is provided to induce the current in the circuit 34 from the ordinary house lighting circuit 40, thereby to induce current in said circuit 34 which may continuously light the lamps 20 and 20ª to continuously display said house identifying insignia 26 and light said key hole 18. While the parts hitherto mentioned may be constructed in any convenient fashion, I preferably in my preferred embodiment construct them as follows: I preferably construct the casing 12 so that the side wall 13 thereof may be mounted flush with a side wall of the door casing. If desired, however, the casing 12 may be mounted so as to project from the front of the house or door. When mounted, however, as shown in Fig. 2 the lens 16 is mounted in a side wall flush with the door casing side wall and is of a type to project a lamp image or beam directly onto the key hole.

I preferably provide two lamps for a house illuminator, as I have found out from practice that it is impossible to get a lamp of suitable resistance relative to the bell circuit which will operate on a circuit of low magnitude to give a suitable light and which will not wear out. For this purpose I preferably employ the two low resistance lamps 20 and 20ª shown in Fig. 3 and I employ one of these lamps in the preferred embodiment shown, the left hand lamp 20ª and mount it within the casing 12 so that it may be readily adjusted to project an image and to throw a beam of light on the key hole at no matter what point relative to the key hole my improved casing is mounted adjacent the door. For this purpose I provide a clamping strip 42 which is adapted to be mounted within the casing and I provide means such as the screws 44 to clamp the ends of said strip 42 to said casing. I also provide a lamp holder 46 preferably constructed from bendable material having a flat central portion 48 adapted to underlie said clamping strip 42 so as to be vertically and angularly adjustable thereunder as suggested in dotted lines in Fig. 3 so as to adjust the position of the lamp 20ª relative to the lens 16 to throw the beam of light onto the key hole. It is obvious that the central portion 48 is moved up and down and tilted angularly relative to the clamping strip 42 until the lamp 20ª is in a position to throw the beam of light directly on the key hole and it is obvious that by varying the angular position of said lamp holder while maintaining the lamp 20ª in a single vertical position that the distance to the lamp 20ª from the lens 16 may be varied so as to project an image and throw a beam of the desired width on the key hole 18. After the lamp holder 48 has been adjusted to a proper position, so that the lamp 20ª thereof will be in the desired position relative to the lens 16, it is then obvious that the strip 42 may be clamped down against the bottom of the casing by the screws 44 to hold the lamp holder 46 in the desired set position. The ends of the lamp holder are provided with forwardly projecting bendable ends, each preferably having a circular lamp base socket 52 to resiliently receive a lamp base 54. It is obvious that said ends are thus bent upwardly from said central portion 46 as at 56 and as the material in the lamp holder itself is bendable the lamp 20ª may be bent varying amounts from the casing base (see Fig. 4) to adjust the lamp 20ª in the desired position. The lamp bases 54 of the lamps 20 and 20ª are inserted inwardly in said sockets 52 so that the bulbs 20 and 20ª may project outwardly therefrom. By means of bending the connecting portions 56 and adjusting the relative position of the lamp holder 46 under the clamping strip 42, it is obvious that the lamp bulb 20ª may be brought into the desired position so that the lens 16 will project the desired beam on to the key hole 18.

A suitable electric circuit 34 is provided to light the lamps 20 and 20ª preferably continuously if desired. In order to conserve the amount of electricity, I have preferably employed a circuit of small magnitude and I have found that in most electrically lighted houses such a circuit conveniently already exists in the door bell ringing circuit, which comprises a circuit 34 connected through a suitable switch 28 to the door bell 36 and which has a current of low voltage and amperage induced therein from the house lighting circuit 40 by means of the transformer 38. I may if desired therefore, suitably mount the lighting switch 28 within my improved casing 12 and in the embodiment of my invention shown, said switch comprises a fixed contact 60 to which one terminal 62 of the door bell or other circuit employed may be connected and a resiliently movable contact 64 which may be resiliently forced downwards to contact the contact 60 and which is normally connected to the opposite terminal 66 of the door bell or other circuit employed. To actuate the resilient contact 64 downwards, I suitably mount a push button 30 having the lower end thereof adapted to contact the terminal 64 and having the outer end thereof projecting forwardly through a suitable hole 32 in the casing cover 22. If desired the button 30 may be hollow, have a transparent window 72 in the outer end and suitable holes 74 in the inner end thereof to admit some light from the lamp 20 thereto so that the button itself will be luminous at all times. I then connect the lamps 20ª and 20ᵇ to the wires 66 and 62 of the circuit by the wires 74 and 76. As the switch 28 is normally open it is obvious that current will normally flow through the circuit 34 and to the lamps 20 and 20ª. However, as is usual with house identifiers when the door bell switch is depressed, the current will then flow through the door bell and tend to dim the lights temporarily. I provide the cover 22 for the casing 12 having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia thereon. In my preferred embodiment the main portion of

the cover 26 is transparent and is provided with the opaque preferably painted letters 24 which designate not only the number of the house but also in my preferred embodiment the name of the house inhabitant.

It is thus apparent that in use a current of low voltage and intensity will continuously light the low resistance lamps at a minimum cost and will continuously illuminate the house identifier by means of reflecting light through the transparent glass cover 26 except through the opaque portion 24 thereof, which will thus appear black on a light background. If desired, however, the opaque and transparent portions may be reversed. It is also apparent at the same time that a beam of light will be continuously projected from the lamp 20ª through the lens 16 on the key hole 18 at no additional cost than the cost necessary to maintain power to keep the house identifier lighted and visible. While the current through the lamp will be positively shorted whenever the door bell is rung this will do no harm.

It is apparent therefore that I have provided a novel combination type of continuous house identifier and key hole light with the advantages portrayed above.

It is understood that my invention is not limited to the specific embodiments shown and that various deviations may be made therefrom without departing from the spirit and scope of the appended claims.

What I claim is:

1. A combination illuminated house identifier and key hole light, comprising, in combination, a casing mounted near or on a door and having a projecting lens mounted laterally thereof in line with the key hole thereof, a plurality of lamps mounted within said casing adjustable to a position to project a beam of light through said lens and onto said key hole, a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia, a door bell, a door bell switch, an electrical circuit connected to said lamps, door bell and switch and a transformer in said circuit to transmit a reduced current from the house lighting circuit.

2. A combination illuminated house identifier and key hole light, comprising, in combination, a casing mounted near or on a door and having a projecting lens mounted laterally thereof, a plurality of lamps mounted within said casing adjustable to a position to project a beam of light through said lens, a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia, an electrical circuit connected to said lamps and a transformer in said circuit to transmit a reduced current from the house lighting circuit, whereby said reduced current may continuously light said lamps to continuously display said house identifying insignia and light said key hole.

3. A combination illuminated house identifier and key hole light, comprising, in combination, a casing mounted near or on a door and having a projecting lens mounted laterally thereof, lamp means mounted within said casing adjustable to a position to project a beam of light through said lens, a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia, an electrical circuit connected to said lamp means and a transformer in said circuit to receive a reduced current from the house lighting circuit, whereby said reduced current may continuously light said lamp means to continuously display said house identifying insignia.

4. A combination illuminated house identifier and key hole light, comprising in combination, a casing mounted near or on a door and having a projecting lens mounted laterally thereof in line with the key hole, lamp means mounted within said casing adjustable to a position to project a beam of light through said lens and onto said key hole, a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia, a door bell, a door bell switch, an electrical circuit connected to said lamp means, door bell and switch, and a transformer in said circuit to transmit a reduced current from the house lighting circuit.

5. A combination illuminated house identifier and key hole light, comprising in combination, a casing adapted to be mounted in a door casing with a side wall thereof flush with the casing side wall and having a projecting lens in said side wall, a clamping strip centrally adjustably mounted within said casing, means to clamp the ends of said strip to said casing, a lamp holder having a flat central portion adapted to underlie said clamping strip vertically and angularly adjustable thereunder having forwardly projecting bendable ends having lamp gripping sockets, each adapted to hold a low resistance lamp base therein with the bulb projecting outwardly therefrom, whereby one lamp may be adjusted and clamped relative to said lens to throw a beam therefrom in the desired direction, a switch mounted within said casing having a transparent lamp button projecting forwardly therefrom, electric wires connected to said lamps through the terminals of said switch and connectable to a bell circuit and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia and having a hole therein for said transparent push button.

6. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, lamp means adjustably mounted therein, whereby said lamp means may be adjusted and secured relative to said lens to throw a beam therefrom in the desired direction and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia.

7. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, lamp means adjustably mounted therein, whereby said lamp means may be adjusted and secured relative to said lens to throw a beam therefrom in the desired direction, a switch mounted within said casing having a push button projecting outwardly therefrom, electric wires connected to said lamp means through the terminals of said switch and connectible to a bell circuit and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia and having a hole therein for said push button.

8. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, lamp means adjustably mounted there-

in, whereby said lamp means may be adjusted and secured relative to said lens to throw a beam therefrom in the desired direction, a switch mounted within said casing having a transparent push button projecting upwardly therefrom, electric wires connected to said lamp means through the terminals of said switch and connectable to a bell circuit a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia and having a hole therein for said transparent push button.

9. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, a clamping strip vertically adjustably mounted within said casing, means to clamp the ends of said strip to said casing, a lamp holder having a flat central portion adapted to underlie said clamping strip vertically and angularly adjustable thereunder having forwardly projecting bendable ends, each having a circular lamp base socket adapted to hold a low resistance lamp base therein with the bulb projecting outwardly therefrom, whereby one lamp may be adjusted and clamped relative to said lens to throw a beam therefrom in the desired direction, electric wires connected to said lamps and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia.

10. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, a clamping strip vertically adjustably mounted within said casing, means to clamp the ends of said strip to said casing, a lamp holder having a flat central portion adapted to underlie said clamping strip vertically and angularly adjustable thereunder having forwardly projecting bendable ends, each having a circular base gripping socket adapted to hold a low resistance lamp base therein with the bulb projecting outwardly therefrom, whereby one lamp may be adjusted and clamped relative to said lens to throw a beam therefrom in the desired direction, a switch mounted within said casing having a push button projecting upwardly therefrom, electric wires connected to said lamps through the terminals of said switch and connectible to a bell circuit and a cover for said casing have relatively opaque and transparent portions one of said portions being shaped to display house identifying insignia and having a hole therein for said push button.

11. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, a lamp holder vertically and angularly adjustable therein having forwardly projecting bendable ends, each having a circular lamp base gripping socket adapted to hold a lamp base therein with the bulb projecting outwardly therefrom, whereby one lamp may be adjusted and clamped relative to said lens to throw a beam therefrom in the desired direction, electric wires connected to said lamps and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia.

12. A combination illuminated house identifier and key hole light, comprising in combination, a casing having a projecting lens in a side wall thereof, a lamp holder vertically and angularly adjustable therein having a forwardly projecting bendable end having a circular lamp base gripping socket adapted to hold a lamp base therein with the pulb projecting outwardly therefrom, whereby said lamp may be adjusted and clamped relative to said lens to throw a beam therefrom in the desired direction, electric wires connected to said lamps and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia.

13. A combination illuminated house identifier and key hole light, comprising, in combination, a casing having a lens in a side wall thereof to throw a beam of light on said key hole, lamp means adjustably mounted therein, whereby said lamp means may be adjusted and secured relative to said lens to throw a beam therefrom in the desired direction and a cover for said casing having relatively opaque and transparent portions, one of said portions being shaped to display house identifying insignia.

FRANK REMINGTON.