April 24, 1934. C. A. IRMINGER 1,955,916

PROGRAM LIGHT

Filed Sept. 26, 1932 2 Sheets-Sheet 1

Fig. 1.

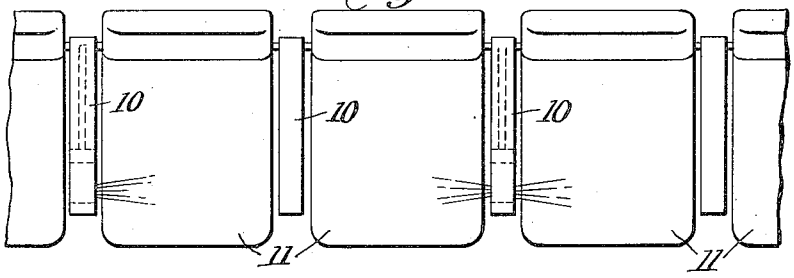


Fig. 2.

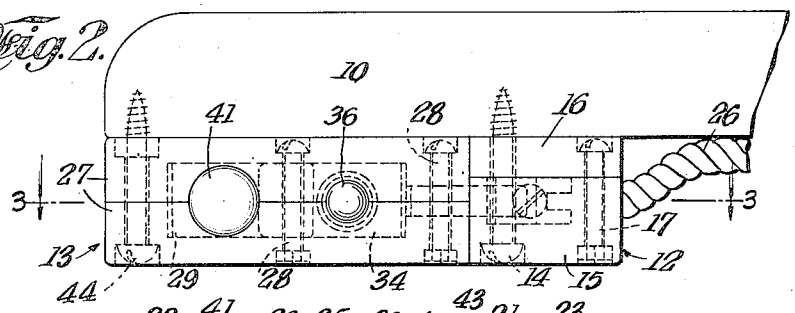


Fig. 3.

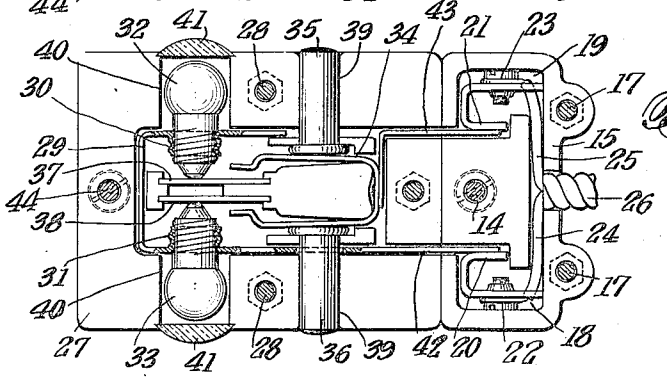
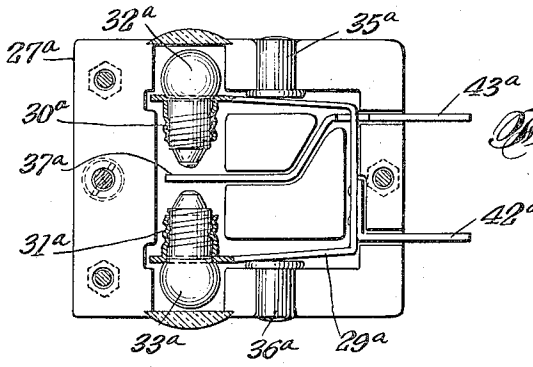


Fig. 4.



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April 24, 1934. C. A. IRMINGER 1,955,916

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Filed Sept. 26, 1932 2 Sheets-Sheet 2

Fig. 6.

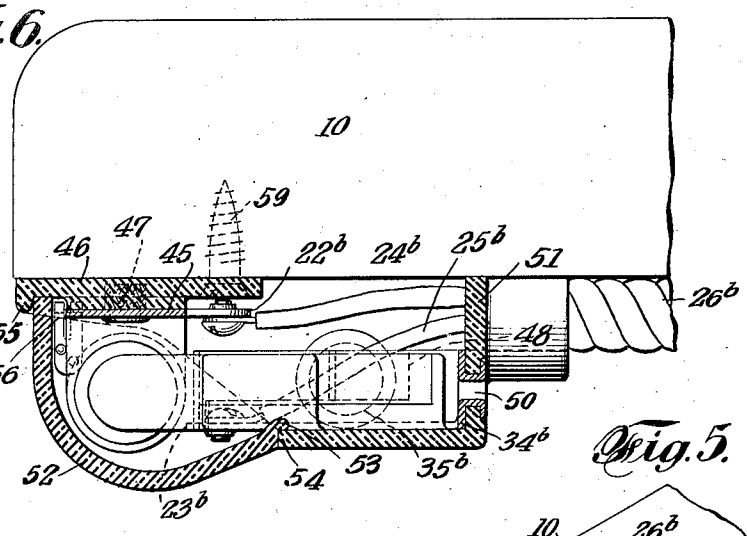


Fig. 9.

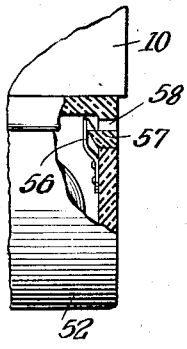


Fig. 5.

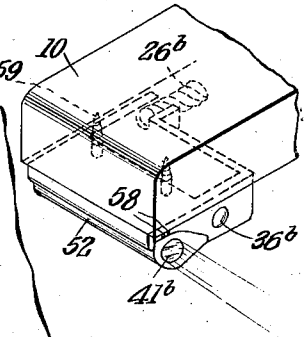
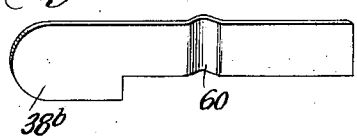


Fig. 7.

Fig. 8.



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UNITED STATES PATENT OFFICE

1,955,916

PROGRAM LIGHT

Caroline A. Irminger, Hoboken, N. J.

Application September 26, 1932, Serial No. 634,948

6 Claims. (Cl. 240—4)

This invention relates to program reading lights as covered in United States Patent 1,879,273 of September 27, 1932.

Special objects of the invention are to improve and simplify the construction, reduce the costs of production and maintenance and to make the light more convenient and better suited to the reading of programs without the disturbing of other patrons.

The objects named and other desirable objects are attained in the novel features of construction, combinations and relations of parts hereinafter described and claimed and illustrated in the accompanying drawings.

The drawings which may be considered as forming part of the specification illustrate several different forms the invention may take and it should be understood that the structure may be further modified and changed, all within the true intent and broad scope of the invention.

Fig. 1 is a broken plan view illustrative of a row of theatre chairs equipped with the invention.

Fig. 2 is an enlarged broken side elevation of one of the arm rests of the chairs, showing an embodiment of the invention applied to the underside of the same.

Fig. 3 is a plan and part sectional view as on substantially the plane of line 3—3 of Fig. 2.

Fig. 4 is a partial plan and sectional view illustrating a modified form of combined switch and lamp unit.

Fig. 5 is a broken perspective view illustrating another form of the invention.

Fig. 6 is an enlarged part sectional detail of this last form.

Fig. 7 is a bottom plan view of the body of this unit with the cover portion removed to expose the lamps.

Fig. 8 is a detail perspective view of one of the contact elements.

Fig. 9 is a fragmentary part sectional detail of the special catch and lock mechanism for the removable cover.

In Fig. 1, a row of theatre chairs is indicated with arm rests 10 between adjoining seats 11.

In the present invention, the program reading lights are carried by the arm rests, as in the patent above identified, but they are so constituted that the occupants of adjoining seats may selectively secure more immediate and direct illumination of their programs.

In Figs. 2 and 3, each lighting unit is made up of a terminal portion 12 and a relatively separable combined switch and lamp portion 13. The terminal portion may be permanently secured to the underside of the chair arm by a screw or screws 14 and is shown as consisting of a hollow, molded or otherwise formed base 15 and a cover 16 held thereto as by screws 17, the two defining chambers 18, 19, holding arched or looped spring terminals 20, 21, with binding screws 22, 23, for wires 24, 25 of the cable 26.

The detachable portion of the unit is shown as made up of two half shells 27, secured together as by screws 28 and defining between them cavities containing an arch-shaped conductor strip 29, with integral sockets 30, 31, in the opposite sides of the arch for the bases of the reversely disposed outwardly facing lamps 32, 33 and for the U-shaped spring contact 34, having its sides depressible by buttons 35, 36, into engagement with the plates 37, 38, contacted respectively by the end terminals of the lamps 32, 33. The half sections of this hollow base are shown as formed with complementary recesses 39, to receive the sliding push buttons and lamp recesses 40, covered at the outer ends by lenses or glass covers 41.

The lamp base receiving member 29 is shown as having one of its sides extended as a contact blade 42, to engage the side of spring terminal 20. Similarly, the U-shaped spring switch member is shown as having an extension or attached blade 43, for engaging the spring terminal 21.

The combination switch and lamp unit therefore is in the nature of an attachment plug, which can be connected with the line by simply plugging it into the fixed terminal portion of the unit. One or more screws 44 or the like, may be employed for removably securing the separable section in place. This construction enables all wiring connections to be permanently made and in case of any light failures, the separable sections may be quickly removed and opened, either to replace the lamps, adjust the switch points or make any other necessary substitutions or repairs.

The detachable unit illustrated in Fig. 4 is generally similar to that described but somewhat simpler and smaller, because of the fact that the sides of the arched member 29*a*, carrying the lamp sockets 30*a*, 31*a*, are utilized as the movable elements of the two switches, being directly engaged by the switch buttons 35*a* and 36*a*, to carry the end contacts of the lamps 32*a* and 33*a*, into engagement with the center contact member 37*a*. This center contact member and the spring arched lamp socket member have projecting blades 43*a*, 42*a*, similar to those of the first form for plugging this detachable portion of the device to the wiring terminal block.

The construction shown in Figs. 6 to 9 is generally similar to that first disclosed, possibly the main distinction being that all parts are mounted on one base portion permanently attached to the chair arm and a removable cover is provided for access to the lamps. The member 29*b* carrying the lamp sockets 30*b* and 31*b* is arched or angularly bent at its opposite ends to face the lamp sockets outwardly and has its back

portion 45 attached to the top wall 46 of the base as by molded in rivets 47 and is provided with a binding screw or other suitable wiring terminal 22*b*. The arched spring switch member 34*b* has introverted end portions 48, 49, positioned to engage the center lamp contact strips 37*b*, 38*b*, when pressed inwardly by thumb buttons 35*b*, 36*b*, and this switch member is shown as anchored at 50 in the back wall 51 of the hollow base or case and as equipped with terminal screw means 23*b* for the other side of the line. The forward portion of the case is provided by the removable cover 52, shown as of somewhat arcuate form about the lamps and switch means and as having at its lower inner end a lip or lug 53, entering over the edge 54 of the lower wall of the case. When so engaged, the cover may be swung up behind a dependent protecting rib 55 at the front of the base, Fig. 6, in which position it is locked as by the forked spring detents 56, which snap over shoulders 57 inside the case. Appropriately located key openings 58 are provided to admit the correspondingly bitted ends of the necessary keys or tools for unlocking the cover. This tool may be in the nature of hand pliers with the opposed jaws of the same carrying the bits for simultaneously releasing all four of the locking detents, thus eliminating to a large extent unlawful opening of these covers.

The lenses or lamp covers 41*b* are shown as mounted in the end walls of the hollow covers 52.

In the last described form of the invention, the lamps and switch mechanism will be exposed for servicing by simply dropping down the covers 52. Also, when this is done, the screws or fastenings 59 extended through the top wall 46 for securing the base in position will be exposed, thus enabling the unit to be entirely removed, if such is required.

If desired, reflectors or reflecting surfaces may be placed at the backs of the lamps to provide illumination for each individual without interferring with any one else. The unit may be incorporated in as a part of the chair arm, the arm then being suitably hollowed and constructed for the purpose. Various other changes may be made to suit different requirements or situations, all broadly within the scope of the following claims. To confine the light in the form of a beam extending downwardly or horizontally over the lap of the occupant of the chair, light shielding reflectors or surfaces may be placed over or in front of the lamps, or be so combined with the window structure as to effect this desired result. Also the lamps and the windows may be set on inclined axes for the purpose of making sure that a light used by any one person will not bother any one else.

The switch contact members 37*b*, 38*b*, are shown in Figs. 7 and 8 as each having an intermediate bend or offset 60 therein interlocking with corresponding shoulders in the base to secure these parts in position. The removable sections such as illustrated in Figs. 2, 3 and 4 may plug in vertically instead of laterally or at any suitable angle and may have special lock mechanism for releasably securing them in position.

What is claimed is:

1. In combination with theatre seats having arm rests between the same, program reading light units carried by said arm rests and comprising each lights positioned to direct illumination over the seats at opposite sides of said unit and switch mechanism for selectively controlling said lights and whereby patrons at the opposite sides of an arm rest may individually utilize the lights for program reading purposes without disturbing each other.

2. In combination with a row of theatre chairs having arm rests between the seats, lamps mounted on said arm rests and positioned to direct illumination transversely from said arm rests across the seats adjoining said arm rests and at a level above the laps of persons seated in said seats and individually operable switches for selectively controlling said lamps located for convenient operation by patrons at opposite sides of the chair arms.

3. In combination with a row of theatre chairs having arm rests between the adjoining seats, program reading light units carried by alternate arm rests in the row and comprising each illuminating means positioned and arranged to selectively illuminate the seats at opposite sides of the same and switch mechanism for selectively controlling said illuminating means and including operating devices individual to the occupants of the seat at opposite sides of each unit.

4. In combination with a row of theatre chairs having arm rests between adjoining seats, casings carried by alternate arm rests and having windows directed toward and over the seats at opposite sides of said arm rests, lamps for furnishing selective illumination through said windows and switches for selectively controlling said lamps and individually accessible to patrons on the seats at opposite sides of said arm rests.

5. In combination with threatre seats having arm rests between the same, program reading light units carried by said arm rests and including each a casing portion with windows in opposite sides of the same, lights in said casing portion back of said windows, switch mechanism in the casing portion and operable to selectively control said lights and current supply connections extending from said switch mechanism through the back of the casing portion for establishing electric service at the back of the theatre seats.

6. In combination with theatre seats having arm rests between the same, program reading light units carried by said arm rests and including each a hollow base open at one side and a removable light carrying portion covering the open side of the hollow base, terminals in said hollow base for receiving electric wiring, means for securing the removable portion in position closing the open side of the hollow base and readily releasable to permit detachment of said lighting portion from the hollow base, a lamp mounted in said detachable light carrying portion and enclosed thereby when said portion is secured in position closing the hollow base and said light carrying portion being constructed to enable access to said lamp when said portion is removed from the hollow base and switch mechanism including an operating push button carried by one of said relatively separable members and connections engageable when the relatively separable members are assembled to complete electrical circuit conditions between the terminals in the hollow base and the lamp in the detachable light carrying member.

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