

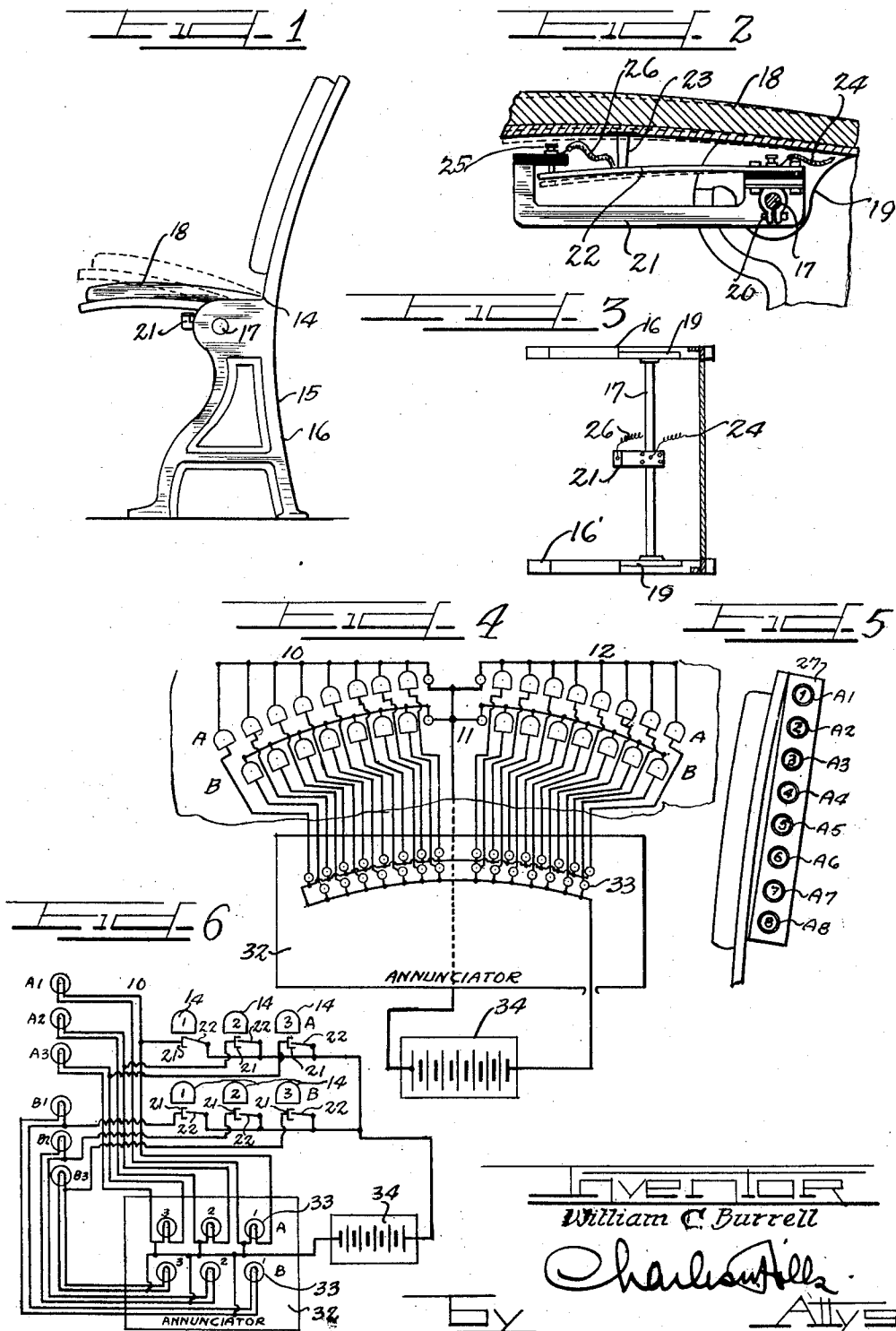
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SEAT SIGNAL SYSTEM

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UNITED STATES PATENT OFFICE.

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SEAT-SIGNAL SYSTEM.

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The invention relates to seat signal systems for theatres, public halls, moving picture auditoriums, and the like.

The system is especially adapted for use in halls where a continuous performance is being enacted, such as vaudeville, moving picture shows, and the like, and where the audience is continuously changing in personnel. Frequently the halls where such entertainments are in progress are filled, every seat being occupied by the audience. Such moving picture halls appear to be very dark to persons entering the hall until their eyes become accustomed to the darkness. It is very difficult, if not impossible, for a person to locate a vacant seat when their vision is so defective and attendants in the foyer or lobby have no means of knowing the location of the seats that have become vacated.

One of the objects is to provide an automatic signal system to indicate at a remote location the fact that a seat has been vacated.

Another object is to provide a system which will indicate in an annunciator located in the outside corridor or foyer of the hall that a seat that has been occupied by one of the audience has been vacated, and which will indicate at the end of the row of seats the particular seat of that row so that an incoming patron may go directly to the row in which the vacated seat is contained and will then be advised definitely the designating number of said vacated seat.

Another object is the provision of an improved circuit controlling switch operable by movement of the pivoted seat or part of a chair.

A further object is to provide a guiding signal system or means for patrons of an exhibition hall which by its use will do away with many, if not all of the ushers required for halls unprovided with such signal systems.

Other objects and the many benefits and advantages arising from the invention will become apparent to persons skilled in the art, from a consideration of the following description when taken in conjunction with the drawings, wherein:

Figure 1 is a side elevation of one of the end chairs of a row of chairs or seats.

Figure 2 is an enlarged section through the seat of a chair showing in side eleva-

tion the circuit closer operable by movement of the pivoted seat.

Figure 3 is a plan view of a chair showing parts thereof in section.

Figure 4 is a diagram of the circuits.

Figure 5 is an elevation of a casing for signal lamps attached to a chair at the end of a row of chairs.

Figure 6 is a diagram showing a modified circuit.

In all of the views, the same reference characters are employed to indicate similar parts.

In Figures 4 and 6, 10 represents one section of seats and 12 another section. 11 is an aisle between the two sections. Usually the rows of seats are indicated alphabetically beginning with A and extending toward the entrance, progressively. In Figure 4 I have shown rows A and B in sections 10 and 12.

In Figure 1, a seat is shown in elevation. The frame 15 of the seat consists of two side members 16 and 16' and a rod 17 is employed to hold the members together and upon which the seat is pivoted by brackets 19, as more clearly shown in Figure 2. Fixed to the rod 17, by a clamp member 20, is a circuit closing structure 21 consisting of the spring 22, which normally supports the seat 18 by a projection 23 extending from the bottom of the seat. The spring 22 forms one part of the circuit closing switch which is connected by a wire 24, and is adapted to contact at 25 to complete the circuit through the wire 26. Normally when the seat or chair is unoccupied the spring 22 is in electrical connection with the contact 25, and the circuit is thereby closed. When a person occupies the seat, the weight of the person causes the projection 23 to move the spring 22 downwardly into the dotted line position shown in Figure 2 and open the circuit.

Secured to the frame 15 of the end chair of a row of seats is a casing 27, containing compartments indicated by reference characters A¹ to A⁸ inclusive for row A of seats and in each compartment there is contained a lamp 29. Facing rearwardly or outwardly is a lens 30 of each compartment, and in each compartment there may be a very small reflector. When the circuit breaking switch 21 is closed, by a person vacating the seat,

the lamp 29 corresponding to the vacated seat, will be lighted in the casing 27. The casing may be so located that the light proceeding from the respective compartments 5 will not have any material effect upon the illumination of the room and will not be annoying to the audience. The casing, or the lamps therein may be suspended from the wall or otherwise supported near the end of 10 the rows of the seats.

In Figure 4, the annunciator 32 may be placed in the outer corridor of the theatre, and lamps 33, corresponding with the lamps 29 located on the end-seats of the rows of 15 seats, will be lighted at the same time that the corresponding lamps in the row will be illuminated. This will indicate to the attendants in the outer corridor or foyer of the theatre that a seat has been vacated and it 20 will also give him the locality of that seat so that he may direct the patron about to enter the theatre to where the vacant seat is located.

In Figure 4, the lamps 29 and 33 are in 25 series, while in Figure 6 the lamps are arranged in parallel, as very clearly shown in the diagrams.

A battery 34 supplies current for the circuit.

30 Instead of having individual lamps A¹, A², A³, etc. for example, on the end seats, a single lamp may be employed to simply indicate the row of seats in which the vacant seat is contained, and the single lamp will 35 be lighted when any one or more of the seats in the row is vacated. This is a very simple modification and will easily be apparent to persons skilled in the art. In the use of such a modification, it is also obvious 40 that a single lamp may be employed in place of the annunciator to indicate to the attendant in the corridor that a seat in the theatre or auditorium has become vacated, and the 45 patron entering the auditorium will see at a glance the lamp which indicates the row in which the vacated seat is contained.

The diagrams of the circuits shown, in Figure 4, and in Figure 6, are so clear as to need no further explanation.

It is manifest that many changes may be 50 made in the specific arrangement of parts, circuits and other features disclosed within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Let- 55 ters Patent is:

1. A circuit closer including a frame having a supporting clamp at one end and a contact element at its opposite end, and a yieldable contact member anchored at one 60 end in connection with the first mentioned end of the frame and adapted to flex into and out of engagement at its free end with said contact element.

2. A circuit closer including a frame hav- 65 ing a supporting clamp at one end and a contact element at its opposite end, and a yieldable contact member anchored at one end in connection with the first mentioned end of the frame and adapted to flex into 70 and out of engagement at its free end with said contact element, said contact element and said yieldable contact member being insulated from the said frame.

3. In a circuit closer adapted to a pivoted 75 chair seat having a cross rod forming the pivot thereof, said circuit closer consisting of a frame clamped at one end to said cross rod beneath the chair seat and provided at its opposite end with a contact element, a flat 80 contact spring in the frame, one end of which is anchored to the clamped end of the frame and the other end of which is flexible vertically into and out of engagement 85 with said contact element, the said spring being in engaged position and adapted to support the seat when the latter is unoccupied.

In testimony whereof I have hereunto subscribed my name.

WM. C. BURRELL.