

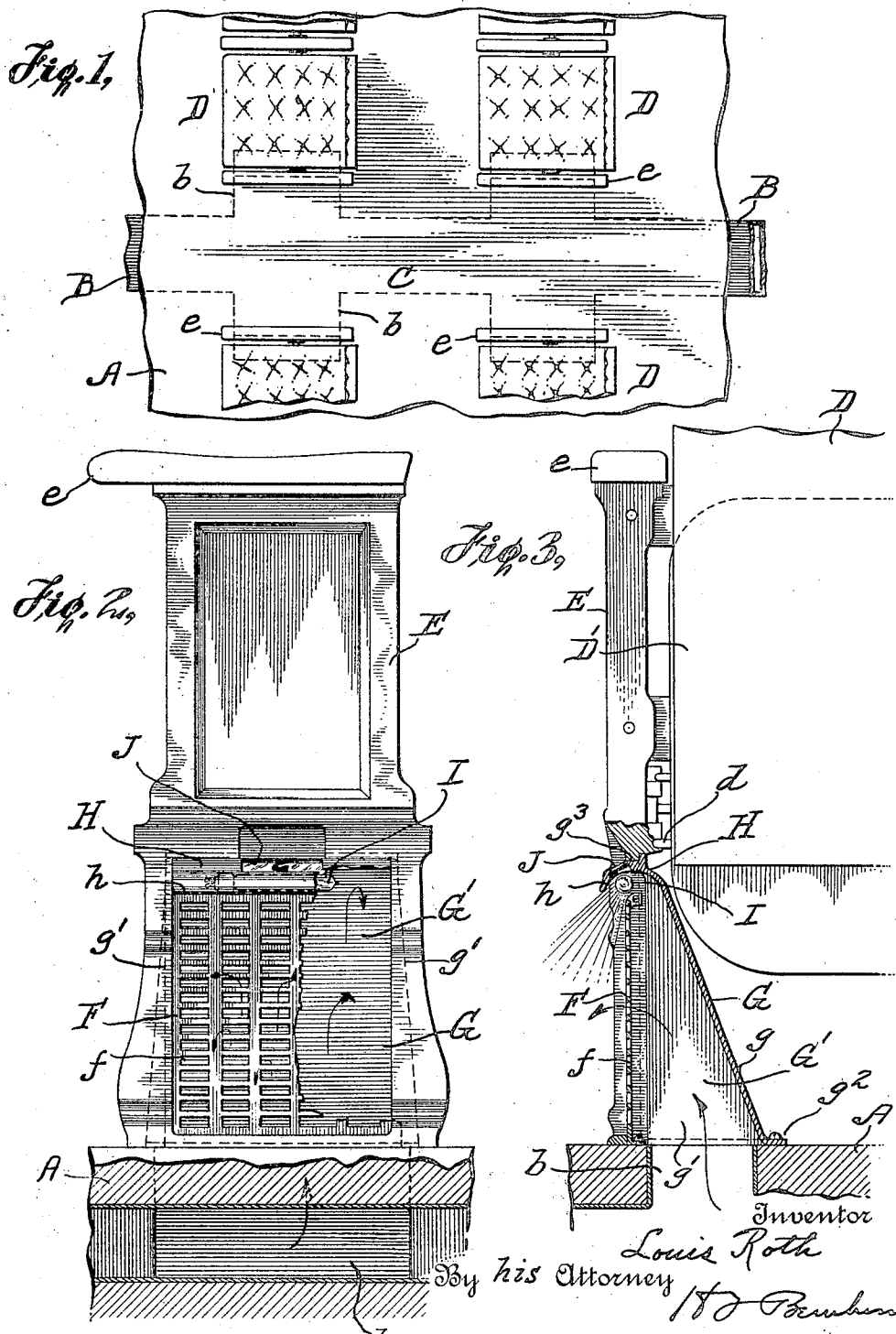
Feb. 19, 1924.

1,484,566

L. ROTH

THEATER CHAIR

Filed May 20, 1920



UNITED STATES PATENT OFFICE.

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THEATER CHAIR.

Application filed May 20, 1920. Serial No. 382,731.

To all whom it may concern:

Be it known that I, LOUIS ROTH, a subject of Austria-Hungary, residing at the city of New York, county of Bronx, and State of New York, have invented certain new and useful Theater Chairs, of which the following is a specification.

This invention is a chair for use in public auditoriums, such as opera houses, theaters, churches, and other places of public assemblage; but the invention is useful more particularly, in connection with moving picture show places.

The ventilation of public auditoriums is a matter of serious concern, for the reason that the inflow of warm air in cold weather and of cool air in warm weather should take place under such conditions as to preclude the inflow into contact with the occupants of the seats.

One object of my invention is to control the inflow of air in a manner to direct the inflowing air into the aisles separating the rows of seats, thus avoiding the disagreeable sensation of warm or cool air flowing into contact with the occupants of the seats.

To the accomplishment of this and other objects my invention consists in several distinct features of novelty, among which are means for controlling the flow of air in a manner to direct it through a grill or open work member of an end seat of a row of seats, thus effecting the discharge of warm or cool air into the aisle between the rows of seats; and means for directing the inflow of air downwardly toward the floor of the aisle.

Other functions and advantages of the invention will appear from the following description taken in connection with the drawings, wherein—

Figure 1 is a plan view illustrating diagrammatically the system for ventilating an auditorium as embodied in this invention.

Figure 2 is an end elevation, partly in section, of an end member of a row of seats.

Figure 3 is a vertical cross section, partly in elevation, of the end member of the row of seats.

In carrying my invention into practice, the floor A of a theatrical auditorium is provided with a flue B for feeding air, it

being understood that warm air is to be supplied in cold weather and that cool air is admitted in warm weather, whereby the auditorium is warmed or cooled and ventilated according to the season of the year. The flue B may be of form approved by ventilation engineers or architects, and located as deemed most desirable; but it is shown as unitary with the floor and in Figure 1 the dotted lines indicate that said flue extends beneath the aisle C separating the rows D of seats.

At the end of each row of seats is an upright member or chair frame E provided as usual with an arm rest *e*, provision being made on the end member for hingedly supporting the seat D' at *d*, see Figure 3.

According to this invention, the seat member E is equipped with air controlling means for directing the flow of air fed by flue B into the aisle C.

The end member E is provided below the normal plane of the seat D' with a grill or open work F, the same being composed usually of cast metal and fastened in position fixedly to the end member E in any suitable manner; said grill being provided with openings *f* and said grill being a plain flat plate as shown or it may be of any ornamental character desired.

Positioned adjacent the grill and beneath the normal plane of the seat is a flue member G, the same being composed of sheet, pressed or cast metal and of a form which enables it to be applied compactly beneath the seat and in cooperative relation to the grill F, whereby the flue member offers the least possible interference with the occupancy of the end seat by the patron of the show. As shown, this flue member is of tapering form, comprising an inclined side wall *g* and parallel end walls *g'*, said flue member being open at the bottom thereof and open also on one side, as shown in Figure 3. The tapering flue member is positioned in opposing or facing relation to the grill, so that the inclined wall *g* is in downwardly diverging relation to the grill, and said flue member is secured fixedly in position, as by the screws *g*² to the floor A and by an interlocking relation at *g*³ to the end member E, whereby the flue member G is re-

tained in fixed relation to the end member and grill thereof, and producing a tapering space or chamber G' acting as means for directing and feeding air to the slots *f* of the grill.

The air duct B is in communication with the flue member G at the end member E of the rows of seats through the medium of branch flues *b* which open through the floor into the spaces or chambers G' of the flue members G, see dotted lines in Figure 1 and full lines in Figures 2 and 3, whereby the inflowing air is distributed through the flue members G and is directed to flow through the grills F into the aisle C at the respective margins of the aisle and at intervals throughout the length thereof.

The upper part of each flue member G is provided with a hood H which is arched in cross section and terminates in a downwardly curved flange *h*, see Figure 3. Beneath the hood is positioned a source of light, herein shown as an incandescent electric lamp I, the latter being intermediate the hood and the top edge of the grill. As shown, the air deflecting hood H is or may be provided with a number plate J adapted to be illuminated by the lamp I.

The hood H of the tapering flue member G is in overhanging relation to grill F through which the air is distributed into the aisle, and although one function of the hood is to shield the illuminating means, yet it is to be understood that said hood co-operates with the grill in the distribution of air within the aisle, for the reason that the hood projects forwardly from the vertical plane of the grill, said hood operating to preclude the upward flow of the air alongside the outer surface of the chair end and to deflect the inflowing air toward the aisle.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is:

1. In a theater chair, the combination with a chair frame positioned adjacent an aisle, of a grill mounted within the chair frame and extending from the floor to a point intermediate the ends of said chair frame, an imperforate flue plate secured to the floor and inclined relatively to the top of the grill, said flue plate having end wings extending therefrom and joined with the grill, and means for securing the grill to the chair member independently of the flue plate, whereby air may be directed into the aisle.

2. In a theater chair, the combination with a chair frame positioned adjacent an aisle, of a grill mounted within the chair frame and extending from the floor to a point intermediate the ends of said chair frame, an imperforate flue plate secured to the floor and inclined relatively to the top

and in overhanging relation to the grill to serve as deflector for directing the inflowing air downwardly, said flue plate having inclined end wings unitary with said flue plate and extending substantially to the grill.

3. In a theater chair, the combination with a chair frame positioned adjacent an aisle, of a grill mounted within the chair frame and extending from the floor to a point intermediate the ends of said chair frame in the plane of the chair frame, a flue plate extending from a conduit flue beneath the chair to a point above the grill, said flue plate being inclined toward the top of the grill and terminating in an arcuate deflector extending over and beyond the vertical plane of the grill to direct the inflow of air downwardly toward the aisle-floor, said flue plate being provided with tapering side walls extending from the conduit-flue to the top of the grill, said flue plate and grill being independently secured to the floor and to the chair frame respectively.

4. In a theater chair, the combination with a chair member positioned adjacent an aisle, and an air supply conduit, said chair member having a side member and pivoted seat member, of an imperforate flue member positioned beneath the seat to form a continuation of the air supply conduit, a grill mounted within the side member of the chair member and extending from the floor to a point near the pivot of the chair seat, and into substantial contact with side wings of the flue member, said flue member being inclined from the floor toward the top of the grill, out of contact with the chair seat when moved on its pivot, and terminating in a cowl-like deflector extending over the grill to direct the flow of air from the conduit-flue through the grill downwardly into the aisle.

5. In a theater chair, the combination with a chair frame positioned adjacent an aisle, of a grill attached to said chair frame in substantially the vertical plane thereof and in facing relation to the aisle, and a tapering imperforate flue plate in opposing relation to the grill and inclined downwardly from the chair frame toward the floor, the ends of said flue plate being attached to the chair frame and to the floor, and the attachment of said flue plate being separate from the attachment of the grill to the chair frame.

6. In a device of the class described, the combination with a chair, of an upright grill in co-operative relation to the chair, and a flue member positioned for feeding air through the grill, the rear wall of said flue member terminating in a hood in overhanging relation to said grill.

7. In a device of the class described, the combination with an end member of an

auditorium chair, of a grill in fixed relation to said end member, means for feeding air through said grill, and a deflector forming a part of the air feeding means and
5 extending forwardly beyond the plane of said grill for directing the inflowing air downwardly.

8. In a device of the class described, the combination with an end member of an auditorium chair, of a grill in facing relation
10 to an aisle, and a flue plate in opposing relation to the grill, said flue plate being provided with a deflector formed integral therewith and extending over the grill and be-

yond the vertical plane thereof so as to
direct the inflowing air downwardly. 15

9. In a device of the class described, the combination with an end member of an auditorium chair, of an air distributing grill, an imperforate flue plate in inclined
20 relation to the grill, and a deflector extending beyond the plane of said grill, said deflector being unitary with the flue plate and extending over the grill.

In testimony whereof I have signed my
25 name hereto this 17th day of May, 1920.

LOUIS ROTH.