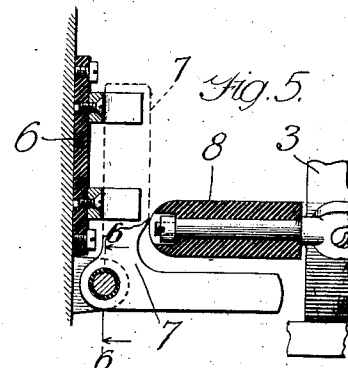
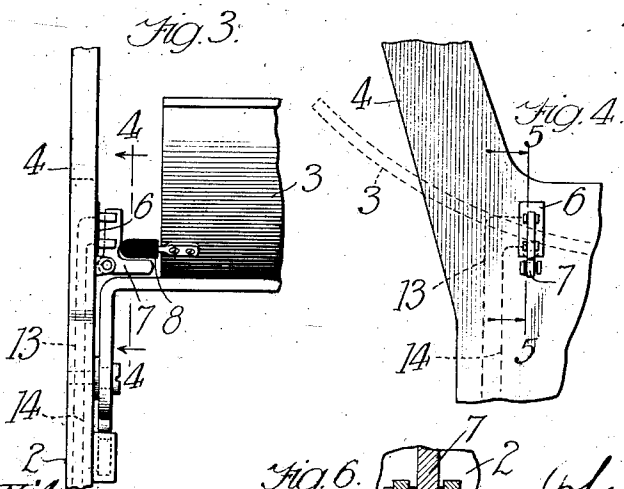
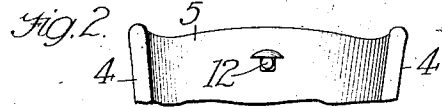
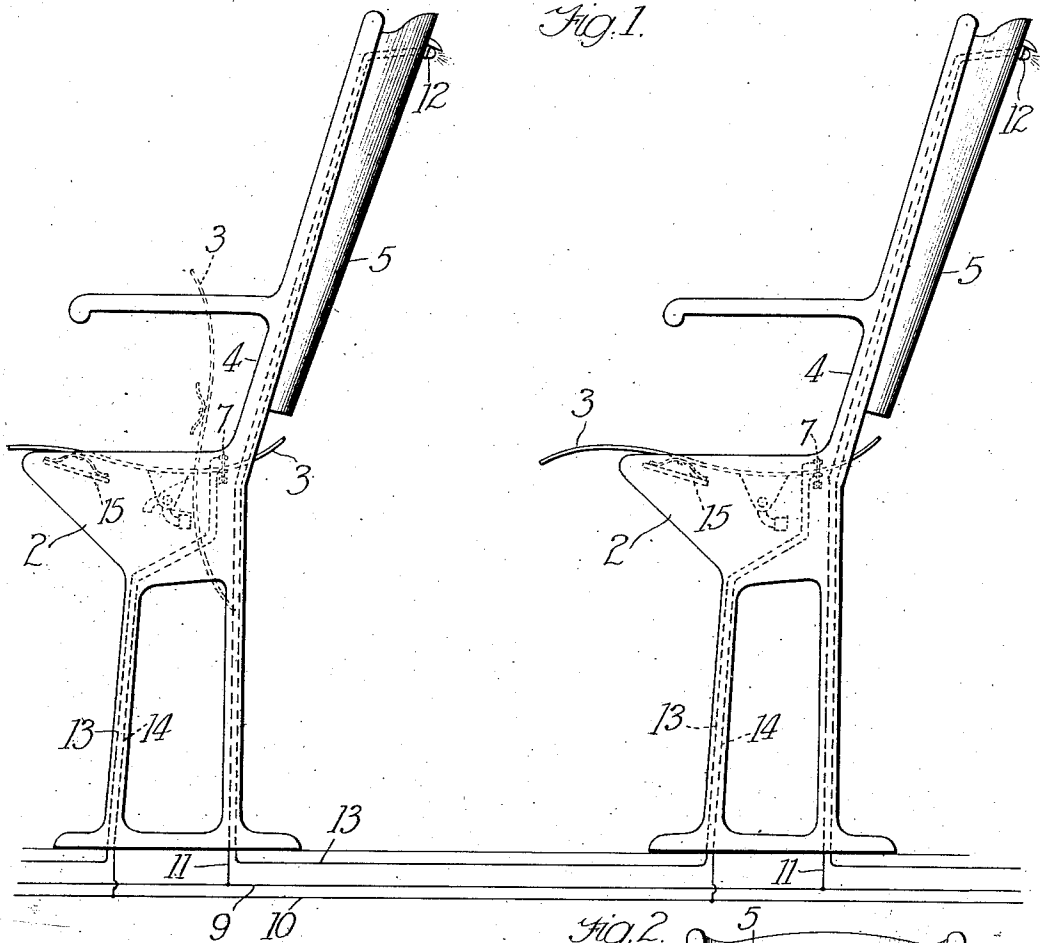


J. A. NORDGRÉN.
ATTACHMENT FOR OPERA CHAIRS.

APPLICATION FILED JULY 15, 1910. RENEWED JULY 29, 1912.

1,060,934.

Patented May 6, 1913.



Witnesses
Robert N. McEir
Frederick T. Wender

Fig. 6. John Axel Nordgrén

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By H. Sander
Att'y.

UNITED STATES PATENT OFFICE.

JOHAN AXEL NORDGRÉN, OF WORCESTER, MASSACHUSETTS.

ATTACHMENT FOR OPERA-CHAIRS.

1,060,934.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed July 15, 1910, Serial No. 572,174. Renewed July 29, 1912. Serial No. 712,181.

To all whom it may concern:

Be it known that I, JOHAN AXEL NORDGRÉN, a citizen of Finland, Russia, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Attachments for Opera-Chairs, of which the following is a specification.

This invention relates to electrical attachments for chairs and has for its object to provide, especially in opera chairs or in chairs arranged in rows one in front of the other, a light secured to the back of one chair which light is automatically lighted when the chair immediately in back of said light is occupied or when the seat of this last named chair is turned down ready for occupancy, thus affording light for its probable occupant.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter more fully described in the following specification; pointed out in the claim and illustrated in the accompanying drawing which forms a part of said specification and in which—

Figure 1 is a side elevation of a couple of chairs embodying the attachment. Fig. 2 is a detail of the light secured in the back of the chair. Fig. 3 is a detail of a portion of the chair seat, frame and switch attached thereto. Fig. 4 is a detail on line 4—4 of Fig. 3. Fig. 5 is a view partly in section on line 5—5 of Fig. 4. Fig. 6 is a sectional detail showing how the mechanism is secured to the chair.

Like reference characters indicate corresponding parts throughout the several views.

2 is a chair provided with a pivoted seat 3 in the manner of the ordinary opera chair.

4 is the frame of the chair supporting the back 5 and provided with a switch 6 and a pivoted lever 7 for opening and closing the same.

8 is an insulated arm secured to the seat

3 in such a manner that it projects out upon the lever 7 when the seat is down and ready for occupancy thus closing the circuit and permitting a continuous flow of the electric current but when the seat is raised or turned up the arm 8 swings down upon the lower member of lever 7 and turns the same upon its pivot out of contact with the switch 6 thus shutting off the current.

In Fig. 1, 9 is a feed wire and 10 a return wire that may run under the floor upon which the chairs are arranged. The feed wire 9 supplies the current to a wire 11 which carries the same up and to the light 12 from which the current returns by means of a wire 13 leading down to the floor and back to the chair in rear and up to the switch 6 of said last mentioned chair and if the lever 7 is up, which will be the case if the chair seat is down, the circuit is completed and the light 12 in the forward chair is lighted thus affording light to the occupant of the rear chair. Proper insulation is provided as at 15 for the seat 3 so that the occupant thereof will not be shocked.

What is claimed is—

An attachment for opera chairs serially arranged comprising in combination, a lamp in the back of one chair, said lamp having feed and return wires 11 and 13, a switch arranged upon the frame of the next chair of the series and in contact with wire 13, said switch being further provided with a return wire 14, a lever 7 for opening and closing said switch and an arm 8 secured to the seat of the last named chair for raising and lowering lever 7.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two subscribing witnesses.

JOHAN AXEL NORDGRÉN.

Witnesses:

B. J. BERNSTROM,
VAINO LCHTNER.