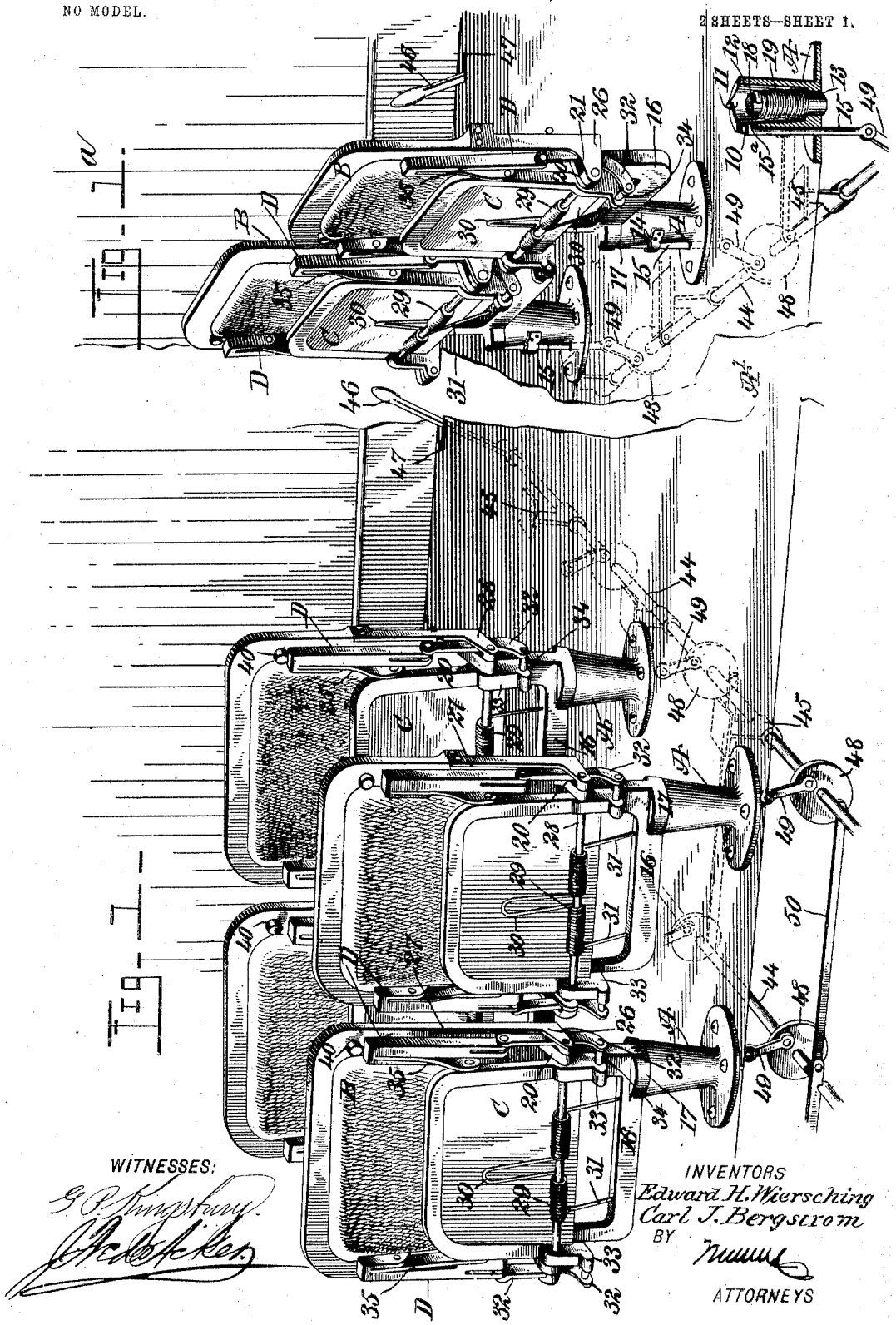
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E. H. WIERSCHING & C. J. BERGSTROM.

THEATER CHAIR.

APPLICATION FILED MAR. 14, 1904.

NO MODEL. 2 SHEETS—SHEET 1.



WITNESSES:

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Edward H. Wiersching
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BY

ATTORNEYS

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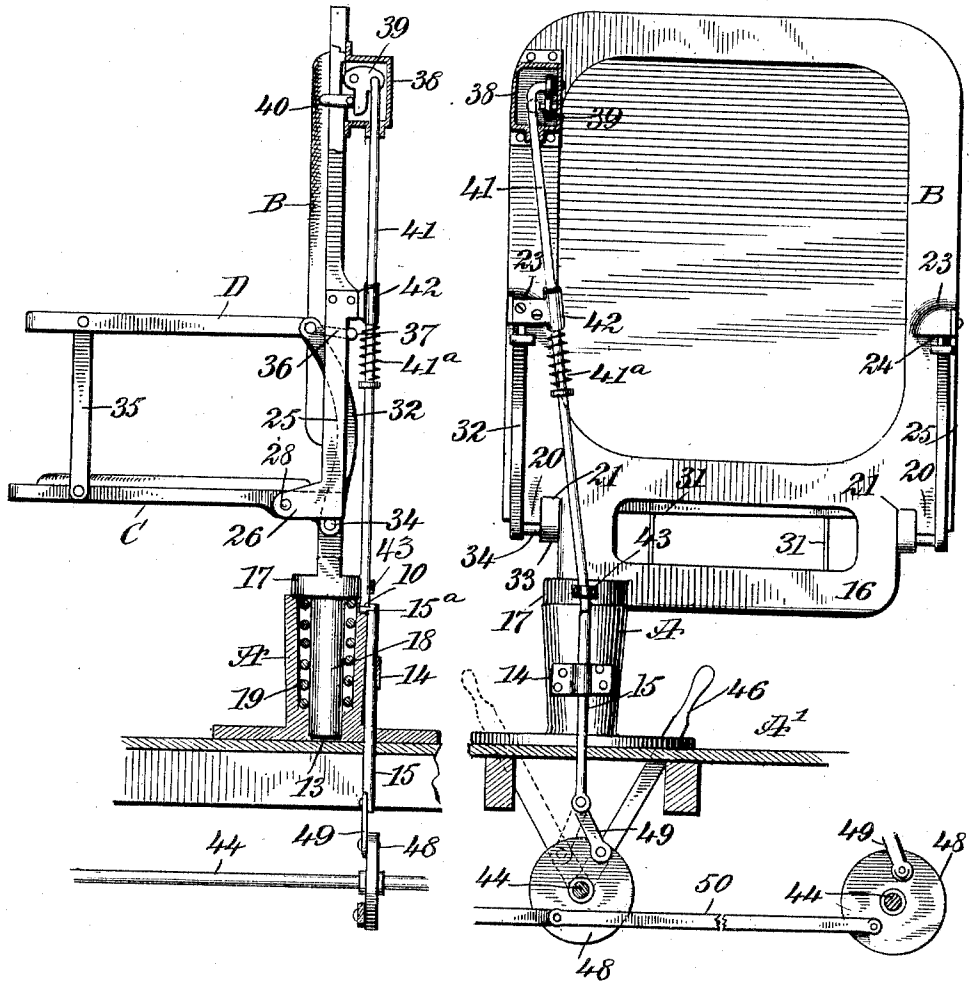


Fig. 2.

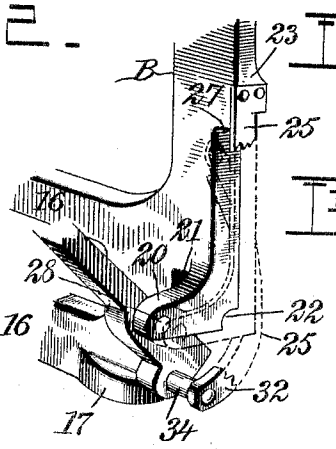


Fig. 3.

Fig. 4.

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No. 775,879. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

EDWARD H. WIERSCHING AND CARL J. BERGSTROM, OF BINGHAMTON, NEW YORK.

THEATER-CHAIR.

SPECIFICATION forming part of Letters Patent No. 775,879, dated November 22, 1904.

Application filed March 14, 1904. Serial No. 198,177. (No model.)

To all whom it may concern:

Be it known that we, EDWARD H. WIERSCHING, a citizen of the United States, and CARL J. BERGSTROM, a subject of the King of Sweden and Norway, both residing at Binghamton, in the county of Broome and State of New York, have invented a new and Improved Theater-Chair, of which the following is a full, clear, and exact description.

The purpose of our invention is to provide a construction of theater-chair wherein the chairs will be normally held in rows in the usual manner and wherein the seats will be normally held close to the backs of the chairs by means of suitable tension devices, and, further, to so construct the chairs that at the option of an occupant a latch may be conveniently operated, whereupon a spring in the pedestal of the chair will immediately act to give the body of the chair a quarter-turn, bringing it at right angles to its normal position, thus opening one row into the next, and when all the chairs in the rows of a section are thus operated series of aisles are obtained, enabling persons to much more expeditiously and conveniently find an exit from a theater or hall than when the ordinary chairs are used.

Another purpose of the invention is to provide means for temporarily securing a chair in either of the stated positions and also to provide a means for simultaneously changing the position of a group of chairs in the same section through the operation of a single lever or its equivalent.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a group of chairs in their normal position and the operating means for the chairs. Fig. 1ª is a perspective view of the chairs turned and held at an angle to their normal position and a sectional perspective view of the pedestal of a chair. Fig. 2 is a sectional side elevation of a chair. Fig. 3 is a rear elevation of the same, and Fig. 4 is a fragmentary perspective view of the lower body portion of the chair.

A represents the pedestal of our improved theater-chair, which pedestal is provided with a reasonably-deep recess 10 in its upper edge at the rear, and the said recess when the pedestal is placed in position is in alinement with the alinement of the rows of chairs when said chairs are in position to receive their occupants, and preferably at the side upper portion of the pedestal a second recess 11 is made, which is a quarter of the circumference of the upper edge of the pedestal from the aforesaid recess 10, and this latter recess 11 has a straight wall farthest removed from the recess 10. The wall of the said recess 11 which is nearest the recess 10 is preferably given the inclination of the latter-named recess. The pedestal is provided with a chamber 12, which is contracted at the bottom and connects with an aperture 13 in the base of the said pedestal, as is shown in Fig. 1ª. At the outer rear side of the pedestal below the recess 10 a guide-strap 14 is secured in any suitable or approved manner, through which strap a releasing-rod 15 has vertical and sliding movement to and from the recess 10, as is best shown in Fig. 3. This releasing-rod 15 is provided with a head 15ª, (shown in Fig. 1ª,) which extends into the said recess 10, so that in the operation of the releasing-rod the head has action in the recess. The pedestal A is secured in any suitable manner to the floor A′ or other support.

The body of the chair consists of a back B, a seat C, and arms D, and at the lower portion of the frame of the back a downwardly-extending auxiliary and preferably skeleton frame 16 is formed; but this auxiliary or skeleton frame does not extend to the side portions of the main frame. At one lower corner of the auxilary frame 16 a disk formation 17 is provided, adapted to rest upon the top

of the pedestal and to turn thereon, and a spindle 18 extends downward from the central portion of this disk formation into the chamber 12 of the pedestal and into the lower opening 13 in the base of the pedestal.

A spring 19 is coiled around the spindle 18 within the pedestal, one end of the spring being secured to the spindle and the other end to the base or lower portion of the chamber 12, and when the seat of the chair is brought to the position to be occupied—that is to say, in a proper position relative to the other seats in the row as usually arranged in theaters and halls—the spring 19 is placed under tension and the seat is held in the position described by means to be hereinafter described.

At the lower end of each side of the frame of the back B a forwardly-extending foot 20 is formed, and a space 21 intervenes between the inner faces of these feet and the outer end walls of the auxiliary frame 16. Each foot 20 at its rear bottom portion is provided with a recess 22, the purpose of which will be hereinafter set forth. These recesses 22 are preferably of segmental formation, as is shown in Fig. 4.

Each side member of the frame of the back at its rear is provided about centrally with rearwardly-extending lugs 23, forming abutments at their lower portions, and the feet 20, above referred to, together with the outer side faces of the side portions of the frame of the back up to the lugs 23, are within the plane of the side edges of the back.

Plates 25 are secured to the outer side edges of the frame of the back at the lugs 23, and these plates are formed with feet 26 at their lower ends extending forwardly and corresponding in formation to the feet 20, forming a portion of the back-frame proper. Consequently a vertical space 27 is obtained between the plates 25 and the back-frame proper.

The frame of the seat C is pivoted to the frame of the back by means of a shaft 28, which extends through the frame of the seat and likewise through the feet 20 and 26, above referred to, forming a portion of the back-frame. A spring 29 is carried by the shaft 28, being located thereon in two coils, as is shown best in Figs. 1 and 1ª. The material of which these coils are made is formed in a loop 30 between the coils, which loop has bearing against the under face of the seat C, as is likewise shown in Figs. 1 and 1ª, and has a tendency to normally close the seat against the back, as is shown in the same views, as the ends 31 of the material of which the spring is made are anchored or secured in any suitable or approved manner in the auxiliary frame 16 or other convenient support below the lower portion of the back-frame proper of the chair.

Forwardly-curved links 32 have movement in the slots or openings 27, above referred to, and the lower ends of these links are pivotally connected with enlargements or lugs 33, formed at the rear ends of the side members of the frame of the seat, and this pivotal connection is effected through the medium of pins 34. When the seat is in horizontal position or in position to accommodate an occupant, the pins 34 enter the recesses 22 in the feet 20 of the frame of the back, and at the same time the upper faces of the sides of the frame of the seat enter the openings 24 between the auxiliary frame 16 of the back and the feet 20 of the back and have perfect bearing against the lower main portion of the back, as is shown in Fig. 3 and indicated in Fig. 2, so that at such time the seat cannot drop below the position it should occupy to comfortably accommodate an occupant.

The upper ends of the forwardly-curved links 32 are pivotally connected with the arms D of the seat. These arms when the seat is in a horizontal position occupy a corresponding position, as is shown in Fig. 2, and when the seat is unoccupied and is automatically folded up against the spring 29, referred to, the arms fold up against the front faces of the side members of the back-frame, as is illustrated in Figs. 1 and 1ª. The outer end portions of the arms D are pivotally connected with the frame of the seat C by means of links 35, as is shown in Figs. 1, 1ª, and 2.

In order that the arms shall not at any time leave the back of the seat, auxiliary links 36 are pivoted where the curved rear links 32 connect with the rear portions of the arms, and each of these auxiliary upper links 36 is provided with a rear head 37. The auxiliary links 36 extend through the openings 27, having free movement therein, and the heads of the links have bearing against the rear of the frame of the back and the rear edge of the attached plates 25. The arms D cannot sag very far downward, however, even after great wear, as the sagging movement of the arms will be limited by reason of the heads 37 of the said auxiliary links being at such time brought in engagement with the lugs 23 at the rear of the frame of the back B.

At that side of the frame of the back at which the spindle 18 is located and near the upper portion of the said frame of the back at the rear we construct a box 38, as is shown in Figs. 2 and 3, and within this box a bell-crank lever 39 is fulcrumed, adapted to be operated by a push-button 40, extending out through the frame of the back at the front. A latch-rod 41 is pivoted to this lever, as is shown in Fig. 2 and in Fig. 3, and this rod passes downward through guides 42 and 43, located, for example, on the main portion of the frame of the back and on the disk 17,

formed at the bottom of the back. This latch-rod occupies such a position relative to the disk 17 that when the body of the chair is brought to the front or is in its normal position the lower end of the latch-rod will be within the recess 10 at the rear of the pedestal and will thus hold the body of the chair in its receiving position and in alinement with other chairs to constitute a row. When it is desired, however, to turn the chair so as to carry it at right angles to its normal position, and thus open up an aisle, as is indicated in Fig. 1ª, it is simply necessary to press the push-button 40, whereupon the lever 39 will be actuated and will withdraw the latch-rod from the recess 10, and immediately the spring 19 will act to turn the body of the chair on its pedestal, and the movement of the chair will be stopped the moment that the side recess 11 is reached, as at such time the latch-rod will enter this latter recess. When it is desired to carry the chair back to its normal position, it is simply necessary to turn it forward by hand, whereupon the latch-rod will again drop into the recess 10. The latch-rod 41 is made to automatically seat itself in either of the two recesses in the pedestal A by reason of a spring 41ª being coiled around the latch-rod 41, and this spring is attached at one end to the latch-rod 41 of a chair and at its opposite end to the upper guide 42, provided for said latch-rod, as is illustrated in Figs. 2 and 3.

We contemplate providing a means for operating a group of chairs at one time, so as to simultaneously turn all of the said chairs at right angles to their normal position, and thus break up the ordinary rows and form passages or aisles for the exit of the occupants of said chairs. To that end we usually employ shafts 44, journaled in suitable bearings 45 beneath the floor A′, and one of these shafts, or all of them, is provided at one end with a hand-lever 46, extending up through a suitable slot 47 in the floor. These shafts run along the line of the pedestals of a row of chairs, extending, for example, from the front of the stage in direction of the rear of the house or parallel with the ordinary aisles, as is shown in Figs. 1 and 1ª. Each shaft is provided with a series of disks 48, secured thereon, and each disk is provided with an eccentrically-connected link 49. Each of these links 49 is pivotally connected with a releasing-rod 15, so that if a lever 46 is moved in one direction all the releasing-rods 15 carried by the shaft connected with that lever will be forced upward in their bearings on the pedestals and will cause the latch-rods on the chairs to be carried upward out of the recesses 10, whereupon the springs 19 acting on the bodies of the chairs thus released will cause all of the said chairs to turn until their latch-rods enter the recesses 11, whereupon the chairs thus operated upon will present their side faces to the side walls of the room, for example, and their side edges to the stage and entrance of the room, thus forming series of aisles through which people may readily pass.

When the chairs are to be restored to their normal position, the lever 46 is moved in a contrary direction and the chairs may be individually turned by hand.

It will be observed from Fig. 1 that the shafts of a number of rows of chairs may be connected by links 50, so that one lever connected with one shaft 44 may impart movement to a number of shafts coupled thereto.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In theater-chairs, a pedestal having recesses in its upper edge, a body comprising a back and a seat, a spindle secured to the back, extending within the pedestal, a spring within the pedestal, attached to the spindle and to the pedestal, a latch carried by the back and adapted to enter either of the recesses in the pedestal, and a releasing device for the latch, as described.

2. In theater-chairs, a pedestal having recesses in its upper edge, a chair-body comprising a back and a seat, the back being provided with a spindle which enters and is mounted to turn in the pedestal, a spring within the pedestal, attached to the spindle and to the pedestal, a latch-bar having guided movement on the back of the body and adapted to enter either of the recesses in the pedestal, and means for raising the said latch-bar out of a recess in the pedestal, permitting the said spring to act and turn the body, as described.

3. In theater-chairs, a pedestal having recesses in its upper edge, a body comprising a back and a seat, mounted to turn on the pedestal, the back-section of the body having a spindle which turns loosely in the pedestal, a spring secured to said spindle and to the pedestal, being placed under tension when the body is turned in one direction, a latch-bar having guided movement on the back to and from the upper edge of the pedestal, being adapted to enter either of the apertures therein, and means for raising the said latch-bar from the front of the body, as described.

4. In theater-chairs, a pedestal having recesses in its upper edge, a body comprising a back and a seat, mounted to turn on the pedestal, the back-section of the body having a spindle which turns loosely in the pedestal, a spring secured to said spindle and to the pedestal, being placed under tension when the body is turned in one direction, a latch-bar having guided movement on the back to and from the upper edge of the pedestal, being adapted to

enter either of the apertures therein, a releasing-bar having sliding movement on the pedestal and adapted for engagement with the latch-bar to raise the same, a shaft, and an eccentric and crank connection between the said shaft and the releasing-bar, as and for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

EDWARD H. WIERSCHING.
CARL J. BERGSTROM.

Witnesses:
E. W. DUGDALE,
LORIN H. IRELAND.