No. 789,424. PATENTED MAY 9, 1905.

W. H. HARRISON.

THEATER CHAIR.

APPLICATION FILED JUNE 18, 1903.

4 SHEETS—SHEET 1.

FIG. 1

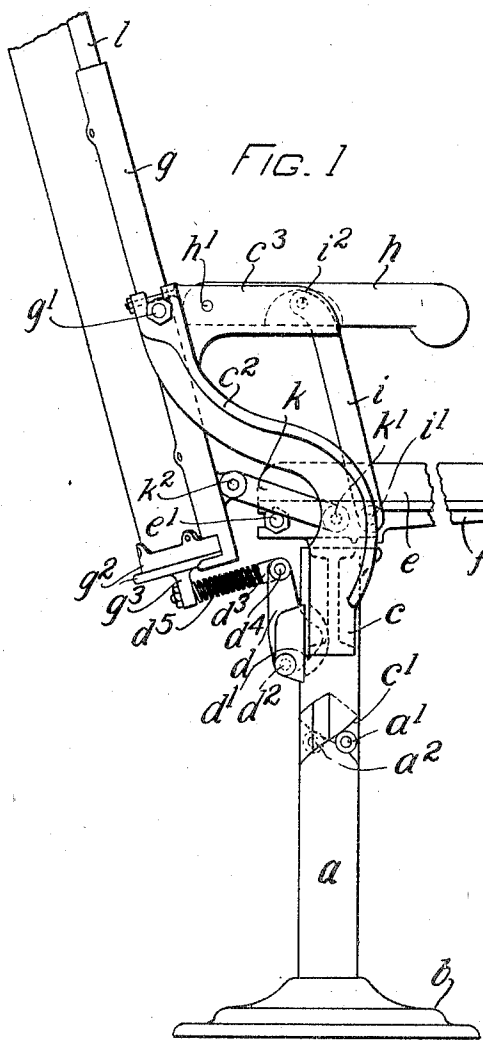
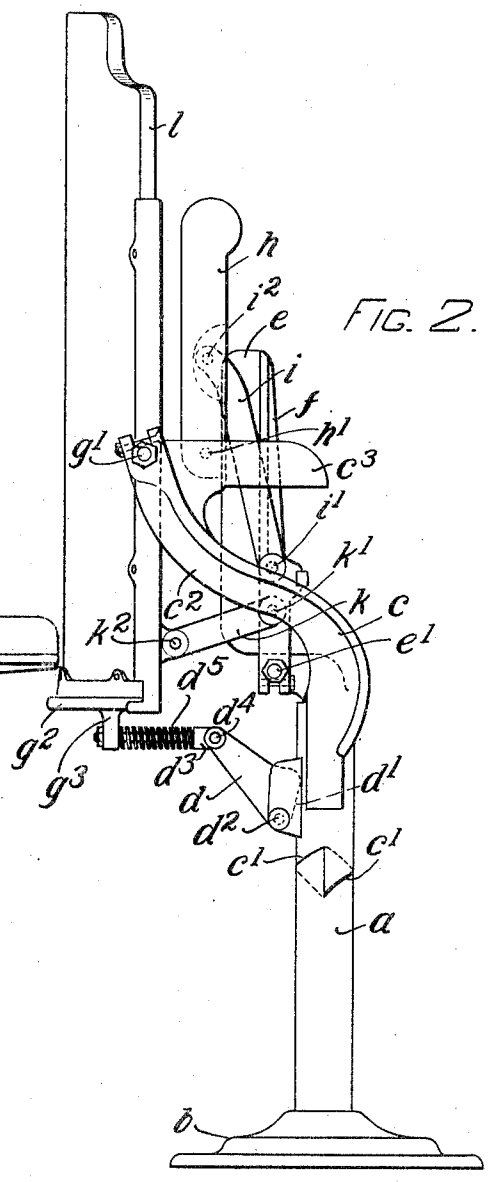


FIG. 2.



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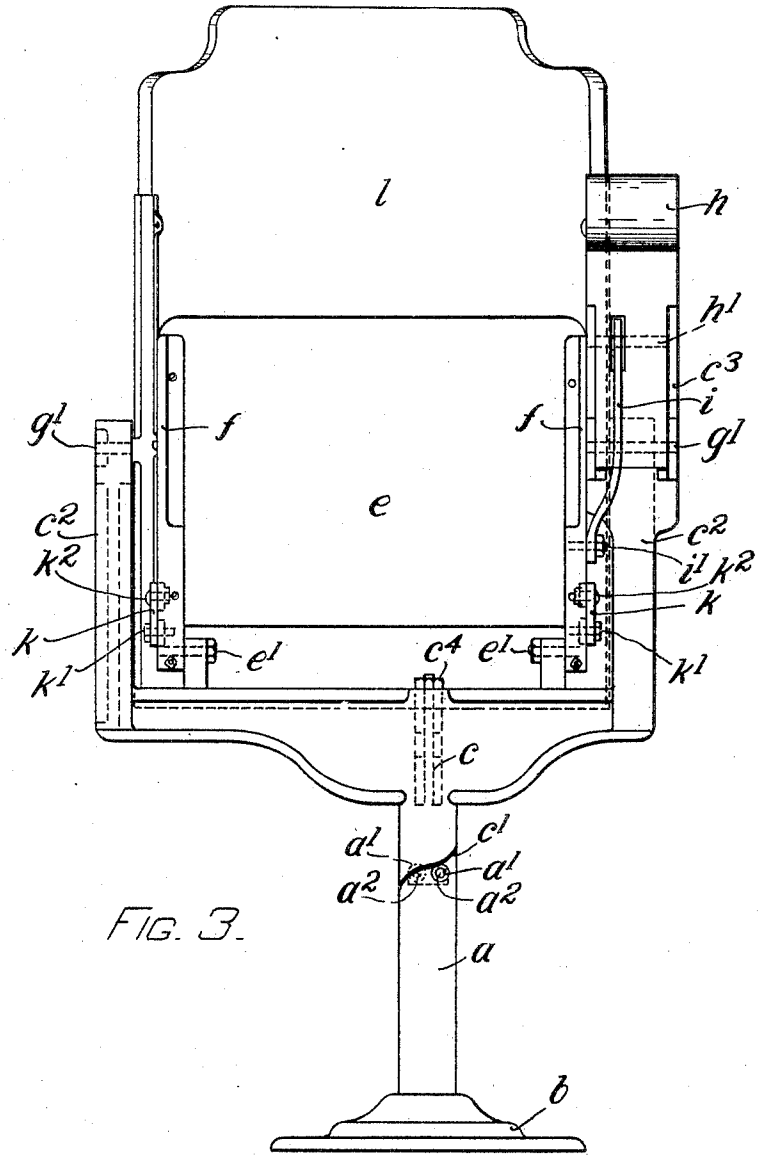


FIG. 3.

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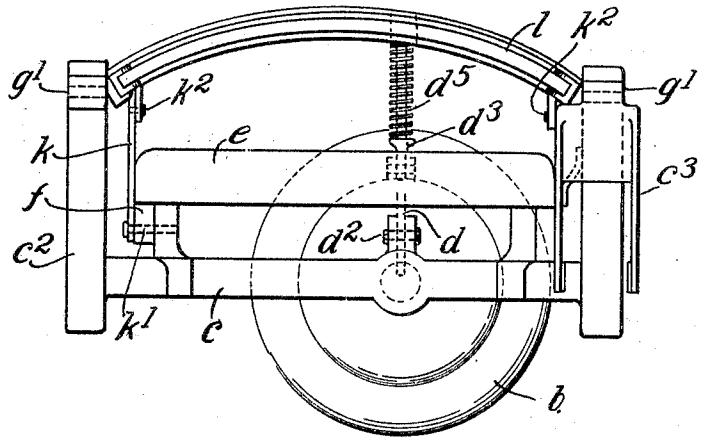
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4 SHEETS—SHEET 3.

FIG. 4.



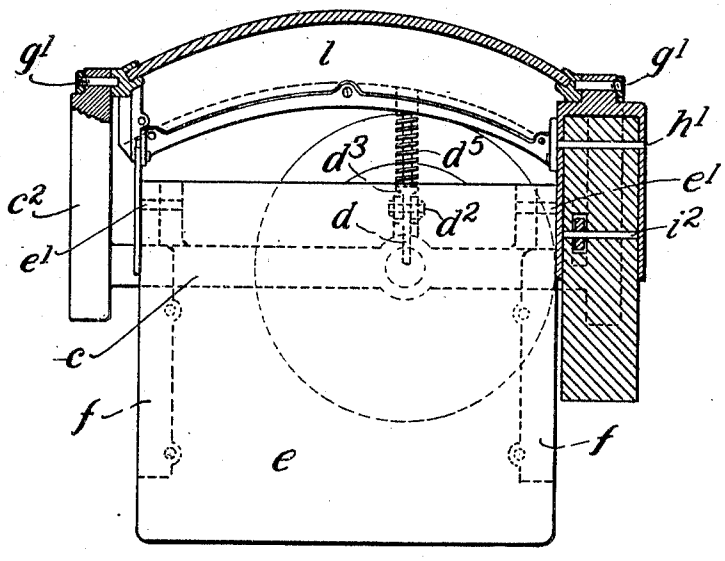


FIG. 5.

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4 SHEETS—SHEET 4.

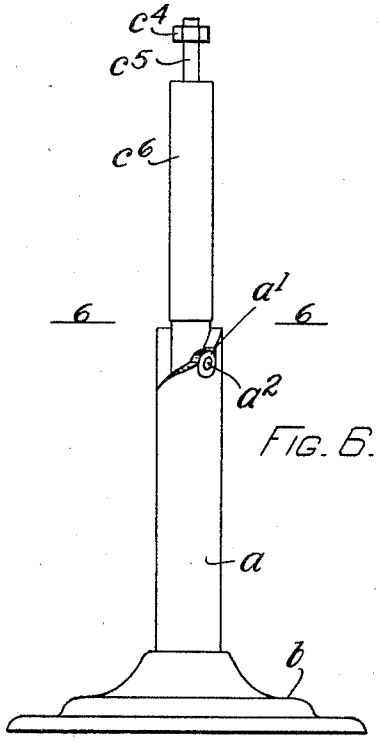


FIG. 6.

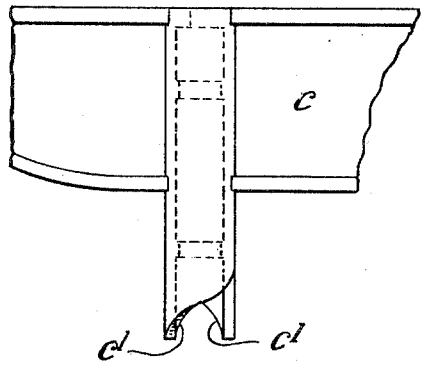


FIG. 7.

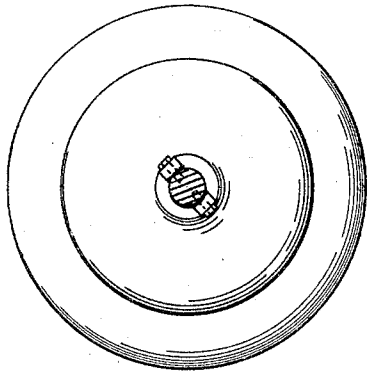


FIG. 8.

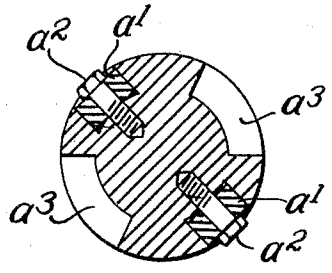


FIG. 9.

WITNESSES

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H. M. Kelso

INVENTOR

William H. Harrison

By Richard P. Elliott

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No. 789,424. Patented May 9, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM H. HARRISON, OF ORANGE, NEW JERSEY.

THEATER-CHAIR.

SPECIFICATION forming part of Letters Patent No. 789,424, dated May 9, 1905.

Application filed June 18, 1903. Serial No. 161,971.

To all whom it may concern:

Be it known that I, WILLIAM H. HARRISON, a citizen of the United States, residing at Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Theater-Chairs, of which the following is a specification.

My invention relates to chairs used in theaters, halls, churches, and the like, and are adapted when the audience rises and the seats are tipped to automatically turn in pairs back to back and open up aisles through which a ready exit may be had.

The objects of my invention are to provide a flexible locking device for chairs to secure them against rotation, to arrange the locking device so it will not in any way receive the weight of the sitter, to secure greater simplicity of parts and a cheaper and more easily produced construction, to provide a more firm and stable seat, and to so construct the locking device that it will be flexible and yield to the pressure of the seat-back when the chair is partly swung round, the seat moved down, and the locking-bolt and the slot in the standard do not register.

The invention consists in the improved theater-chair herein described and in the arrangements and combinations of parts of the same, as will be hereinafter more fully set forth.

In the accompanying drawings similar letters of reference refer to similar parts throughout the several views.

Figure 1 represents a side elevation of my chair when in position for use. Fig. 2 is a similar view of the chair when folded and has rotated through a space of approximately ninety degrees. Fig. 3 is a front elevation of my improved chair when folded. Fig. 4 is a plan view of same when folded. Fig. 5 is a partial sectional elevation of my improved opera-chair when in position to be occupied. Fig. 6 is a detail elevation of the standard with the yoke removed. Fig. 7 is a sectional elevation of a portion of the supporting-yoke. Fig. 8 is a plan view of the standard with the yoke removed. Fig. 9 is a sectional view through line 6 6 of Fig. 6.

In the drawings, a indicates the standards supporting the yoke. b is the base portion of the standard and is adapted to be secured to the floor. The yoke c has a sleeve with a longitudinal opening adapted to slide over and revolve upon the upper portion c^6 of the standard a, and its vertical movement is limited by the stud c^5 and nut c^4. The standard a is provided with inclined faces a^3 a^3 and the rolls a' a', secured opposite each other by means of the pivot-bolts a^2 a^2. The rolls a' a' are adapted to contact with the inclined faces c' c' of the yoke c. The purpose of this arrangement is that when the seat of the chair is moved upward and the locking device controlled thereby withdrawn the weight of the chair and its parts will rest upon the incline surfaces c' c' and the rolls a' a' and through them will cause it to revolve through a space of approximately ninety degrees for the purpose of swinging the chairs in pairs to open up aisles throughout the assembly-room.

The standard c^6 has a locking slot or groove d' cut into it in such position that when the chair is swung into its normal position for use and the seat lowered the locking-bolt d will register with and project into said slot d' and lock the chair against further movement. The locking-bolt d is operated through the back l and the casting g^2, secured to it, which has the lug g^3, through which the sliding bolt d^3 plays, so that when the back l is swung upon its pivot g, or to the inclined position, as shown in Fig. 1, said locking-bolt d will be moved inward, by means of said lug g^3 and the spiral spring d, surrounding it, into the slot d', as shown, and securely lock the chair against swinging.

The yoke c has pivoted to upwardly and rearwardly projecting lugs, as shown in Fig. 4, the seat-brackets f f by means of the pivot-bolts e'. To the outer faces of the brackets f f are pivoted the links k k by means of the pivot-bolts k'. To the outer end of said links k k is pivoted the lower portion of the back by means of the pivots k^2. Said yoke c also has the upwardly-extending arms c^2 c^2, the upper ends of which are adapted to receive the pivot-bolts g' g'. One of the upwardly-extending arms

c^2 c^2 has the forwardly-extending portion c^3 when the chairs are used in pairs. When used singly each of said members c^2 c^2 has forwardly-extending portions c^3, adapted to receive and have pivoted to them the arms h by means of the pivot-bolts h'. There are also attached to the brackets f f the connections i by means of the pivot-bolt i', the upper ends of said connections i being pivoted to the arm h by means of the pivot-bolts i^2. These links i and k are so constructed and arranged that when the seat-brackets f f are swung upward they in turn will swing the back l to a vertical position by means of the link k and the arm h to a vertical position by means of the connection i, the position of both members being clearly shown in Fig 2.

In Fig. 2 the locking-bolt d is shown to be withdrawn from the slot d', so that the seat is free to swing to a position for use, as shown in Fig. 1.

Fig. 6 shows more clearly the arrangement of the standard and its various parts, as well as the rolls a' and the inclined surfaces corresponding to the inclines c' c' of the yoke c.

Fig. 9 shows the rolls and their method of attachment in detail.

The operation of my improved device is as follows: Assuming the chair to be in its folded position, as shown in Figs. 2 and 3, more particularly Fig. 3, the first operation is to swing the chair around until in position to be occupied. Then by moving the seat downward to the position shown in Fig. 1 the locking-bolt d will enter the slot d' and lock the chair against rotation. At the same time the back l will swing to an inclined position and the arm h will be moved downward to the positions they occupy, as shown in Fig 1. When it is desired to open up aisles, the occupants rise and fold up the seat, when the sleeve of the yoke c, through the weight of the parts, will move downward and around upon the inclines c' c' and the rolls a' a' until it reaches its lowest point, when the seat will have swung through a space of approximately ninety degrees. As before stated, the chairs are designed to be used in pairs and are arranged as rights and lefts, so that when they are folded, as shown in Fig. 1, and swung to their aisle positions they will be back to back.

Having described my invention, what I claim is—

1. In a chair of the character described, a standard; a frame or yoke mounted upon the standard supporting the body of the chair, and capable of turning thereon; and means for locking said yoke against turning with relation to the standard provided with yielding means between the chair-back and a shoulder on the locking-lever.

2. In a chair of the character described, a standard; a yoke supporting the body of the chair and socketed to pivotally receive said standard; and yielding means for locking said parts against turning interposed between the chair-back and the locking-lever.

3. In a chair of the character described, a standard consisting of an upright shaft, a yoke or frame carrying the chair-body socketed to receive a shaft, the walls of said socket and said shaft having longitudinal slots adapted to be brought to register; a locking-lever arranged to enter said slots; and means for operating said locking-lever, comprising a lug on the chair-back, an oscillating sliding bolt, and a yielding medium between said lug and chair-back; and a shoulder on the sliding bolt.

4. In a rotary folding chair, a standard; a supporting yoke or frame adapted to rotate on said standard having a longitudinal slot capable of being brought to register with a longitudinal slot in the standard; a hinged seat and a pivoted back; a link connecting said seat and back; a locking-lever adapted to enter at one end the said slots in the yoke, the standard and yielding means connecting said locking-lever and the back of the chair.

5. In a chair of the character described, having a standard and a yoke supporting the chair-body, the yoke adapted to turn on said standard; slots in said yoke and standard adapted to be brought into coincidence, and a locking-lever adapted to enter said slots when they coincide; a seat-hinge on said yoke; a back pivoted on said yoke; and a yielding connection between the seat-back and the locking-lever, whereby said lever may be positioned to lock the yoke to the standard before the seat is turned to an operative position.

6. In a revolving folding chair, a post or standard; a yoke socketed to pivotally receive said standard, the wall of said socket being slotted and the standard having a groove adapted to be brought to register with said slot; a locking-lever pivoted to work in said slot; a back to the chair pivoted to the yoke intermediate of its ends; means for swinging said back; a sliding bolt mounted in the lug on said back; a locking-lever connected with said sliding bolt by a slot-and-pin connection; and a spring on said slide-bolt interposed between the shoulder on same and the lug on the chair-back.

7. In a revolving folding chair, a standard; a yoke supporting the chair-body and adapted to turn on said standard, said yoke and said standard having longitudinal slots adapted to be brought into coincidence; a locking-lever adapted to enter said slots; a swinging back connected to said lever by a slide-bolt; and a spiral compression-spring inclosing the said slide-bolt between the swinging back and a shoulder on the slide-bolt.

8. The combination of the standard and the socketed revolving yoke, said parts having slots adapted to be brought into alinement;

a locking-lever pivoted in one slot, and adapted to enter the second of said slots; a swinging back; and a spring adapted to be compressed by the swinging of said back, which compression when transmitted to said locking-lever will force it into said second slot.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses, this 18th day of March, A. D. 1903.

WILLIAM H. HARRISON.

Witnesses:
A. B. AMORY,
B. F. HARRISON.