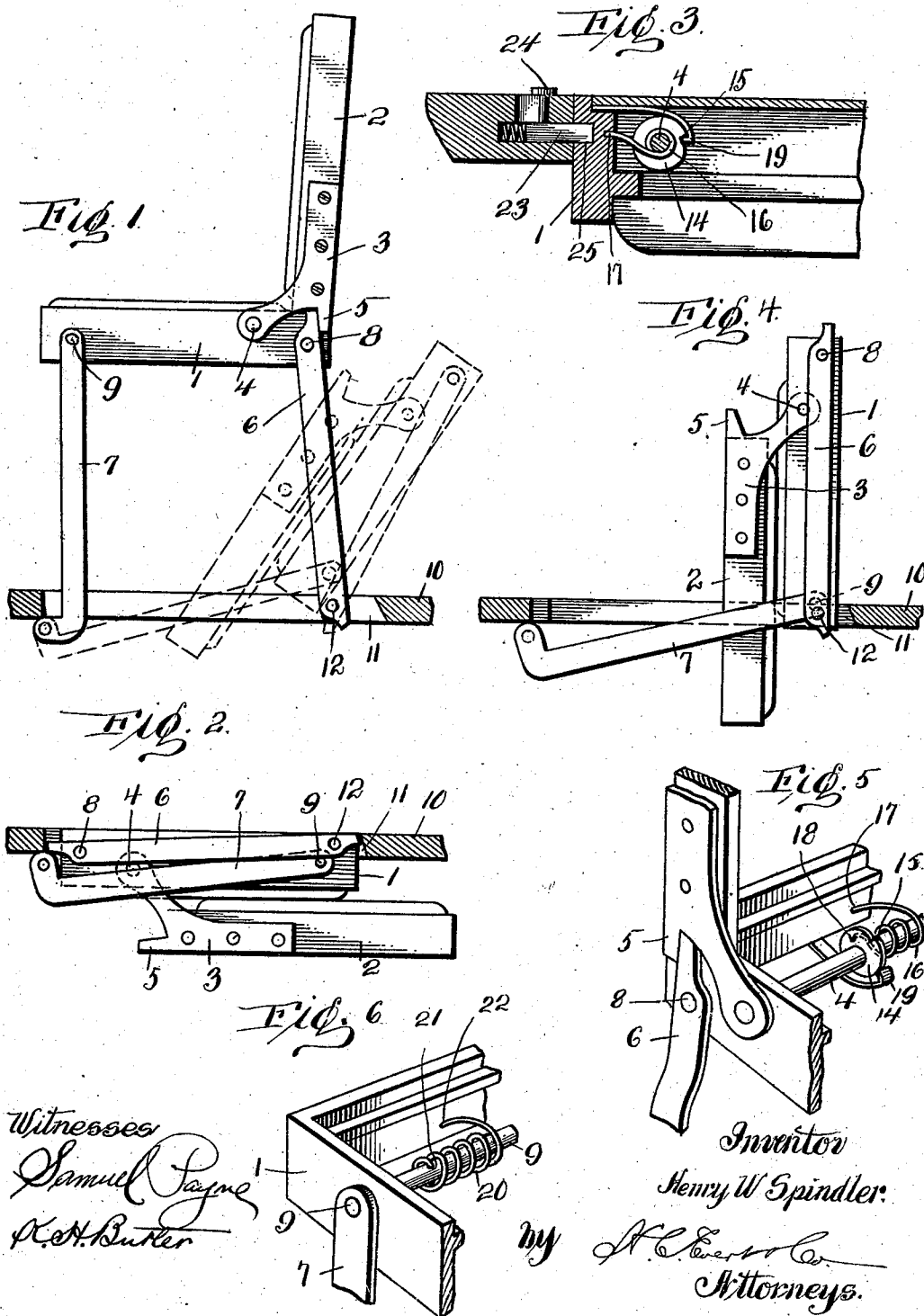


No. 847,707.

PATENTED MAR. 19, 1907.

H. W. SPINDLER.
FOLDING CHAIR.
APPLICATION FILED OCT. 17, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY W. SPINDLER, OF VERONA, PENNSYLVANIA.

FOLDING CHAIR.

No. 847,707.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed October 17, 1906. Serial No. 339,320.

To all whom it may concern:

Be it known that I, HENRY W. SPINDLER, a citizen of the United States of America, residing at Verona, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Folding Chairs, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to chairs; and more particularly to a chair designed for use in theaters, auditoriums, and large assembly-rooms.

The invention has for its object to provide a folding chair that can be readily collapsed and placed in the floor or its support, whereby a smooth and uninterrupted floor-surface is provided in the room in which the chair is used. To this end I have devised a folding chair wherein positive and reliable means are employed for locking the chair in its folded position, also novel means for immediately placing the chair in a useful position when the same is released from a folded position.

With the above and other objects in view, which will more readily appear as the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and then specifically pointed out in the appended claims.

Referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved chair in an operative or set-up position, the chair being shown in dotted lines as partially folded. Fig. 2 is a side elevation of the same folded beneath a floor or its support. Fig. 3 is an enlarged detail sectional view of a portion of my improved chair, illustrating the manner in which it is locked in engagement with a floor or its support. Fig. 4 is a side elevation of the chair partially folded. Fig. 5 is a detail perspective view of the mechanism employed for raising and maintaining the back of the chair in an elevated position after it has been released from a folded position, and Fig. 6 is a similar view of the mechanism employed for raising the body of the chair to an elevated position.

To put my invention into practice, I construct my improved chair of a suitable seat 1, having a back 2, the back of said chair being pivotally connected to the seat 1 by

side plates 3, mounted upon the ends of the shaft 4, which passes through the seat 1. The side plates 3 are provided with depending lugs 5, the object of which will presently appear.

The seat 1 and its back 2 are supported by two rear legs 6 and two front legs 7, the legs 6 being pivotally connected to the seat 1, as at 8, while the legs 7 are mounted upon the ends of a shaft 9, journaled in the seat 1.

The floor 10, which supports my improved chair, is provided with an opening 11, and pivotally connected to the sides of the opening 11, as at 12, are the rear legs 6 of the chair, while the front legs 7 thereof are pivotally connected to the floor 10 directly beneath the front edge of the opening 11.

To maintain the back 2 of the chair in an elevated position, I provide the shaft 4 with a fixed disk 14, having a notch 15 formed therein. Upon the shaft 4 is mounted a spiral spring 16, having its one end secured to the back rail of the chair-seat, as at 17, while its opposite end is secured to the disk 14, as at 18. The back rail of the seat is provided with a resilient hook-shaped arm 19, adapted to engage in the notch 15 of the disk 14 and hold the back 2 of the chair in a folded position while the chair is being placed into the opening 11 of the floor 10.

To maintain the chair in a set-up or useful position, I provide the shaft 9 with a coil-spring 20, having its one end secured to the shaft 9, as at 21, while its opposite end is secured to the front rail of the seat 1, as at 22.

The manner of folding my improved chair is as follows: The back 2 of the chair is folded downwardly upon the seat 1, and then the seat and back are moved rearwardly and rotated upon the legs 7 toward the front edge of the opening 11. This places the seat 1 and the back 2 in a position shown in Fig. 4 of the drawings. The seat 1 is now forced downwardly until it reaches the horizontal plane shown in Fig. 2. To retain it in this position within the opening 11 of the floor 10, I provide the front edge of the opening 11 with a spring-held latch 23, operated by a button 24. The latch is adapted to slip into a recess 25, formed in the rear rail of the seat 1.

To release the chair, it is only necessary to move the button 24, at which time the chair will swing upwardly into position as shown in Fig. 1 of the drawing, this being accomplished through the medium of the springs 20 and 16. In order that the back 2 of the

chair will be released by the sudden movement of the seat 1 when assuming a set-up position, the notch 15 is rounded, whereby the back 2 will be easily released by a sudden jarring.

To support the back 2 in an upright position, the depending lugs of the side plates 3 are adapted to engage the upper ends of the rear legs 6.

It will be obvious that my improved folding chair fits snugly within the opening 11 of the floor and provides a smooth surface with the exception of the button 24, which can be countersunk within the floor, if desired.

I do not care to confine myself to the type of chair in connection with which my improved folding mechanism is employed, and such changes in the minor details of construction as are permissible by the appended claims may be resorted to without departing from the spirit and scope of the appended claims.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a suitable support having an opening formed therein, of a folding chair, said chair consisting of a seat, two rear legs pivotally connected to said seat and to the sides of said opening, two front legs pivotally connected to said seat and to said support beneath said opening, a back pivotally connected to said seat and contacting with said rear legs, means to hold said seat in an elevated position, means to hold said back in a vertical position, and means to lock said chair in said opening, when folded therein, substantially as described.

2. In a folding chair, the combination with a support having an opening formed therein, of a chair-seat, a shaft carried by said seat adjacent its forward end, front chair-legs connected at their upper ends to the said shaft and at their lower ends pivoted to the support beneath the opening, a chair-back, a shaft extending through the chair-seat and to which the chair-back is pivoted, means connected to said chair-seat and said shaft

for holding the chair-back in an elevated position, rear supporting-legs pivoted at their upper ends to the chair-seat and at their lower ends to the side walls of the opening in the support, and means connected to the shaft adjacent the front end of the chair-seat for securing the latter in an elevated position.

3. In a folding chair, a chair-seat, a shaft carried by said seat adjacent the forward end thereof, front supporting-legs connected at their upper ends to said shaft, rear supporting-legs pivoted at their upper ends to said seat, a support having an opening into which the lower ends of said legs extend, and to which they are pivoted at their lower ends, a second shaft extending through the chair-seat, a chair-back pivoted to said second shaft, means engaging said second shaft to hold the chair-back in an elevated position, and means engaging the first-mentioned shaft to hold the chair-seat in the elevated position.

4. In a folding chair, a support having an opening above which the chair is disposed when in its set-up form and into which the chair is received when in the folded form, a chair-seat, a shaft carried by said seat adjacent its forward end, two front legs connected at their upper ends to said shaft and pivoted at their lower ends to the support, two rear legs pivoted at their upper ends to the chair-seat and at their lower ends to the support, a chair-back carried by the chair-seat, spring-actuated means for holding the chair-back in an elevated position, spring means for holding the chair-seat in an elevated position, and means carried by the support for locking the chair within the opening in said support when folded therein.

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY W. SPINDLER.

Witnesses:

MAX H. SROLOVITZ,
A. J. TRIGG.