(No Model.)

E. J. SMITH.

OPERA CHAIR.

No. 252,533. Patented Jan. 17, 1882.

Fig. 1.

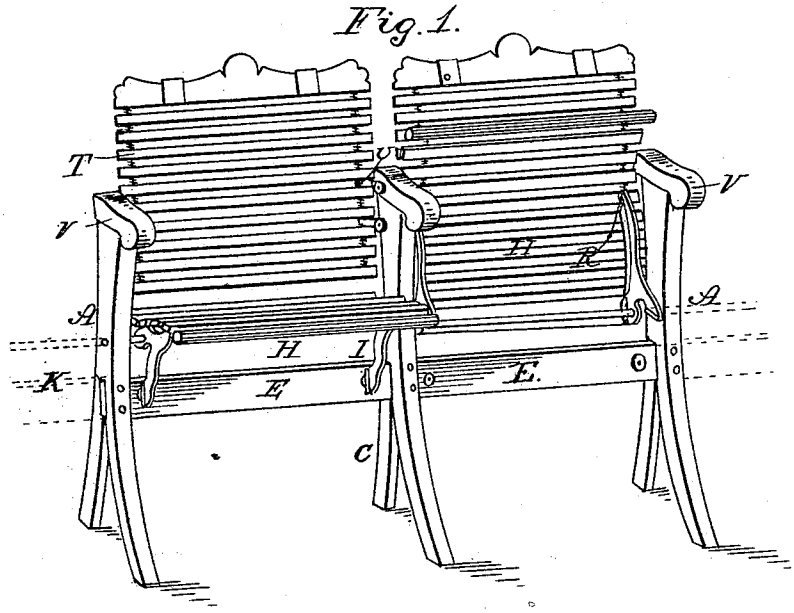


Fig. 2.

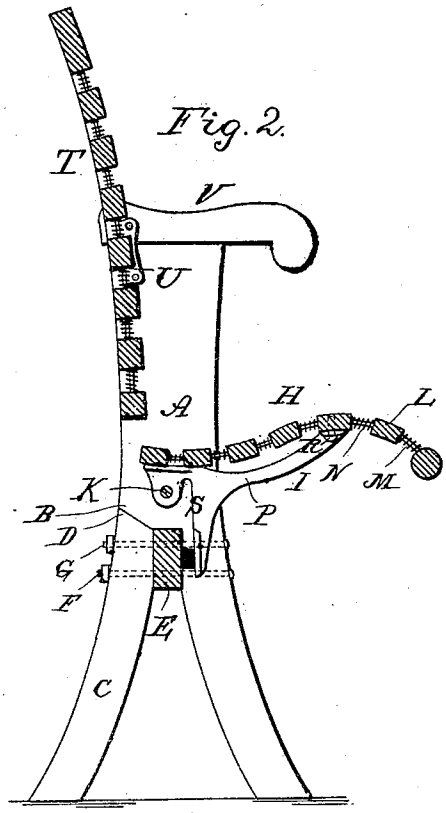


Fig. 3.

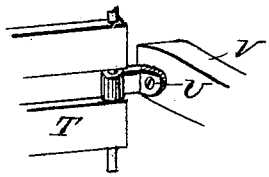
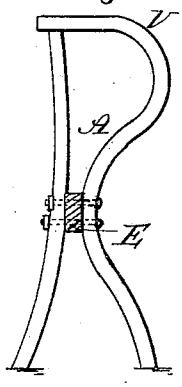


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELDRIDGE J. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA.

OPERA-CHAIR.

SPECIFICATION forming part of Letters Patent No. 252,533, dated January 17, 1882.

Application filed June 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELDRIDGE J. SMITH, a citizen of the United States, resident at Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Opera-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in chairs for theaters and other places of amusement, of that class in which the seat may be folded up when not in use, in order to leave an unobstructed passage between the rows of chairs; and it has for its objects to provide a spring back and bottom for such chairs that will yield to the person of the occupant at various points and form a comfortable seat and back-rest; to provide for uniting a series of seats in sections in a simple and convenient manner, and to simplify and reduce the expense of the construction of such chairs, as more fully hereinafter specified. These objects I accomplish by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of two of the chairs constructed and connected together according to my invention. Fig. 2 represents a vertical sectional view of the chair; Fig. 3, a detached view, showing the means of attaching the back to the chair-frame; and Fig. 4 represents a modification of the sides of the chair-frame.

The letter A indicates the sides of the chair-frame, formed each with an abutment, B, the portion below the abutment being curved forward and forming the front leg of the chair.

The letter C indicates the rear legs of the chair, consisting of short curved pieces of wood or other suitable material, having each an inclined seat, D, at the top, against which the abutment of the corresponding chair-side rests.

The letter E indicates a transverse beam, located between the upper portions of the legs of the chairs, close up against the abutment B. The said beam and the legs of the chair are securely fastened together by means of the screw-bolts F, which are headed at one end and provided with screw-nuts G at the other. When several chairs are to be united in a series to form a section the beam is made continuous and extends the whole length of the series, so as to firmly unite the respective chairs.

The letter H indicates the seat, composed of two side supports, I, pivoted to a transverse bar, K, and the slats L, mounted upon the bars M, which are constructed of spring-steel and bent to the desired curve to form a comfortable seat. The said bars have mounted thereon between the respective slats short sections of spiral springs N, which serve to keep the slats separated a proper distance, and at the same time allow the bars to spring freely. The bar K, like the beam E, when the chairs are united in a series, extends throughout the series, and forms a common means of attachment for the respective seats. The supports I are curved at P, as indicated, in order to allow the rear portion of the seat to yield to the body of the occupant, and one of the slats is connected to the supports by screws R, the remainder being free to spring, the forward slats projecting beyond the ends of the supports, so that they will be unobstructed from below. The rear ends of the supports are carried downward, as indicated by the letter S, so as to bear against the beam E when the seat is down, and hold it in proper position for the occupant.

The letter T indicates the back of the chair, which is formed of slats mounted upon spring-bars, and held apart by spiral springs, in a manner similar to the seat before mentioned. The said back is properly curved to form a comfortable rest, and is secured at each side to the sides of the chair-frame by one or more metallic brackets, U, which embrace the spring-rods between two or more of the slats at or about the middle of the back. By this construction it will be perceived that the back will yield readily, both above and below its points of attachment, so as to accommodate itself perfectly to the person of the occupant.

The upper parts of the sides of the chair-frame are formed with arm-rests V, and the beam E is provided with rubber cushions, against which the supports I abut when down.

In the modification shown in Fig. 4 of the

drawings the side pieces are formed in two parts, which are recessed for the reception of the transverse beam, the forward part of the side being bent, so as to form the forward leg of the chair and the arm-rest thereof, the portion forming the rear leg in this instance being continued up to the top of the side, so as to form a support for the arm-rest, as shown.

The transverse beam and seat-supporting rod are to be made sufficiently flexible when the chairs are grouped together in sections to permit said beam and rod to be bent in the arc of a circle, so as to permit the sections to be curved toward the stage when so desired, one or more of the chairs being provided with flanges or angle-pieces at the lower extremities of the legs, whereby they may be secured to the floor to retain the sections in their curved position.

It is evident that my invention can be applied to settees, church-pews, benches for public halls, and other like purposes, as well as to chairs, as above described, and hence I do not limit myself to its application to chairs.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the back of a chair which is constructed of spring-wire and slats, as described, of the metal bracket U, rigidly attached to the sides, as shown, and holding a wire of the back, whereby the lower portion of back is provided with a spring action, substantially as specified.

2. The combination, with the chair-seat which is constructed of spring-wire and slat fabric, of the support S, concave on its upper surface and adapted to sustain the seat at front and rear only, said seat being bolted to said support only at its front end, as shown, whereby a spring action is secured for the center of the seat, substantially as shown and described.

3. In a chair or settee, the end piece, A, having abutment B and forming the front leg, the wide flat stretcher E, and rear leg, C, secured together by bolts, which pass through both legs and the upper and lower portions of the stretcher, as shown, whereby a multiplicity of rounds and stretchers is obviated, substantially as described.

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

ELDRIDGE J. SMITH.

Witnesses:

CHAS. L. COOMBS,

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