

P. W. NOLAN.
Folding-Chair

No. 159,205

Patented Jan. 26, 1875.

Fig.1.

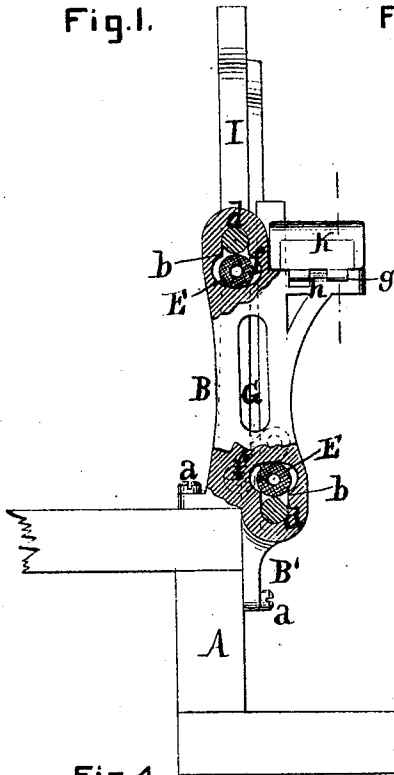


Fig.2.

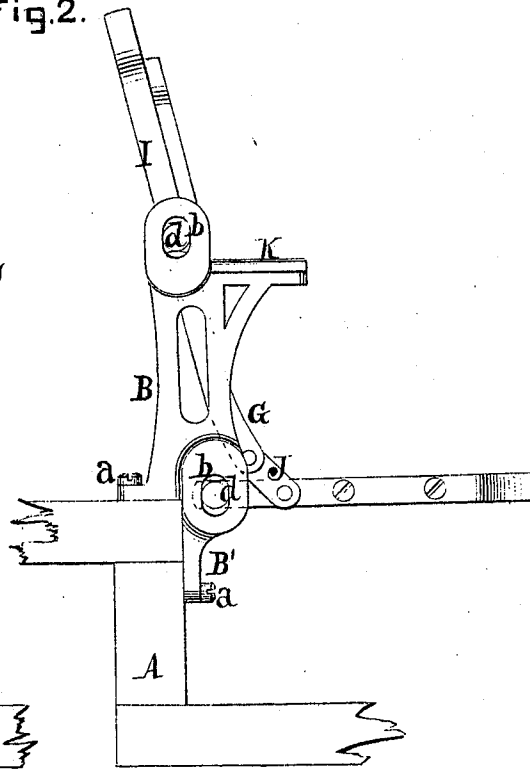


Fig.4.

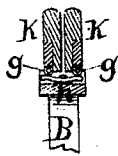
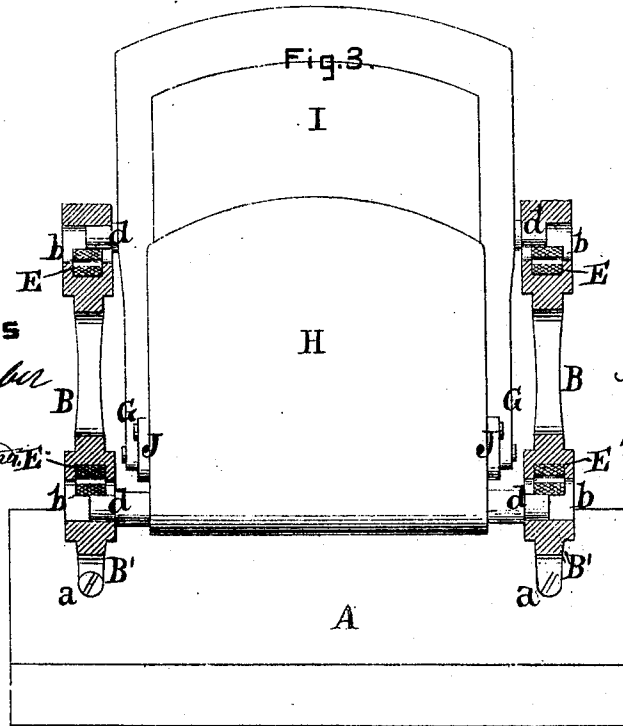


Fig.3.



Witnesses

Ernst Fildner
Henry G. Gentry

Inventor.

Patrick W. Nolan
per
Van Lintwood &
att'ys.

UNITED STATES PATENT OFFICE.

PATRICK W. NOLAN, OF NEW YORK, N. Y.

IMPROVEMENT IN FOLDING CHAIRS.

Specification forming part of Letters Patent No. **159,205**, dated January 23, 1875; application filed June 10, 1874.

To all whom it may concern:

Be it known that I, PATRICK W. NOLAN, of the city, county, and State of New York, have invented a certain new and Improved Folding Chair, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 is a side view, partly in section, when the chair is folded. Fig. 2 is a similar view when the chair is unfolded. Fig. 3 is a sectional front view of the chair.

Similar letters indicate corresponding parts.

This invention relates to certain improvements in folding chairs, in which the seat and back are connected with each other by means of hinged side straps, and with the supports of the chair by means of studs, which are hung in guide-slots in the said supports.

My invention consists in cushions of india-rubber or other equivalent material, combined with the bearings of the chair in such a manner as to reduce or prevent the noise of folding or unfolding, and furthermore impart to the chair a certain degree of elasticity, which tends to promote the ease and comfort of the occupant. The cushions are located in the guide-slots for the studs of the seat and back, which guide slots are provided with sockets, to receive and hold the cushions, and also to allow of a spreading thereof when they are compressed in folding the chair. It consists, further, in brackets for supporting the seat and back of the chair, the said brackets being provided with angular or stepped base-pieces fitting upon a corresponding support in such a manner as to effect a saving in material and reduce the cost of the chair, as hereinafter more fully described. The said brackets are intended chiefly to be used in chairs for theaters, &c., in which case the brackets are arranged upon the steps of the galleries or tiers; but they can also be secured upon a block of wood or other suitable material, which is in turn secured upon the floor. It consists, also, in a hinge-joint combined with the side straps, for connecting the seat and back of the chair in such a manner as to reduce the movement or play of the said seat and back in the act of folding or unfolding.

In the drawing, the letter A designates a

portion of the step or terrace of a gallery such as is commonly constructed in theaters, churches, &c., which is of a succession of steps or terraces extending the whole length of the said gallery, the chairs, when such are used, being arranged in rows upon the steps, whereby each row is brought a little higher than the other. B B are the brackets, which constitute the support for the seat and back of my chair, and B' B' are their angular or stepped base-pieces, which are fitted upon the edge of the step A, and are secured thereto by means of screws or rivets *a*.

By this construction I effect an economy of very nearly one-quarter of the metal or casting required for the standards usually employed for supporting the seat and back, and when a large number of chairs are used this economy is not insignificant. By the same means I also reduce the weight of the chairs, which exerts a great influence on the strain to which the gallery or tier above named is subjected.

It has been customary heretofore to arrange the supports of the chair upon the surface of the step or row to which the chair belongs, while, by my invention, I arrange the supports—that is to say, the brackets B B—on the front of the step or row in the rear of that to which the chair belongs, the same occupying but very little space thereon, whereby I not only economize in material, but also, to some extent, in space. The brackets are ornamented in any chosen manner, and they are provided with vertical guide-slots *b*, for the studs *d* of the seat and back, the said studs being affixed to the sides of the seat and back, and forming the connection between the same and the aforesaid brackets.

E designates the cushions of my chair, which I prefer to make of india-rubber, but which can be made of any other material suitable for the purpose. These cushions I place in the guide-slots *b*, and on such other parts of the chair as come in contact with each other in folding or unfolding, as, for instance, upon the bearings of the folding arm, hereinafter described, so as to prevent, as much as possible, all noise or shock when the parts of the chair come in contact with each other.

In folding or unfolding the chair, the studs *d* move or play in the guide-slots, and about or

rest in the ends thereof. It is obvious that the cushions E have the effect of causing the two to come easy together, so that no noise or shock is occasioned by changing the condition of the chair.

In the ends of the guide-slots *b* are holes or sockets *f*, Fig. 1, to receive the cushions, the diameter of which is slightly larger than that of the guide-slots, so that the said cushions are held in place without the use of any additional fastening devices, and, furthermore, are allowed to spread when they are compressed by the studs *d* in folding the chair.

The letters G G designate the side straps for connecting the seat H and back I with each other. The said straps are of sheet metal or any other suitable material, and project from the sides of the back, while they are jointed to the sides of the seat through intermediate short straps J J. The last-named straps are pivoted to the side straps G and to the sides of the seat, so as to constitute hinge-joints, the effect of which is to allow of folding the seat and back with the least possible movement or play, which reduces the play or friction of their studs in the guide-slots, compared with the movement thereof in a chair of the old construction.

When the chair is folded, the joints J J assume an oblique position, and the seat and back are brought face to face against each other, while, when the chair is unfolded, the said straps coincide with the side straps G G, or nearly so, the back is inclined, and the seat is held in a horizontal position.

K K are the sections or leaves of my folding arm, which are hinged at *g* to the arm portion of the brackets or supports B, and which are subjected to the action of a spring, *h*, or of any other suitable device which has a tendency to keep the same in a folded position.

It should be stated that one of the brackets

B, or of the standards, as usually arranged, forms or constitutes the support for one side of two chairs; or, in other words, three brackets form a support for two chairs, four for three, and so on, under which circumstances the occupants of some of the chairs are given only one arm-rest, which is the bracket-arm, whereas it is desirable to have two. This is found in my invention—that is to say, in the folding arms K K, each of which, when unfolded, constitutes an independent rest, and which together form or constitute two rests for one and the same bracket. These leaves or arms K K can be folded up against each other when not in use, as shown in Figs. 1 and 4, and occupy the least possible space.

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

1. The supporting-brackets B, having recesses *b*, terminating in oval sockets *f*, in combination with the elastic cushions E, studs *d*, seat H, and back I, all constructed substantially as herein shown and described.

2. The hinge-joints J J, in combination with the side straps G G, for connecting the seat and back, substantially as hereinbefore set forth.

3. The seat and back supporting brackets B, formed with angular bases, as described, for connecting with a supporting-base, substantially as described.

4. The sections K K, hinged at *g* to the arm portions of the bracket B, in combination with a spring for retaining the sections in folded condition, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

PATRICK WILLIAM NOLAN. [L. s.]

Witnesses:

J. VAN STANVOORD,
CHAS. WAHLERS.