

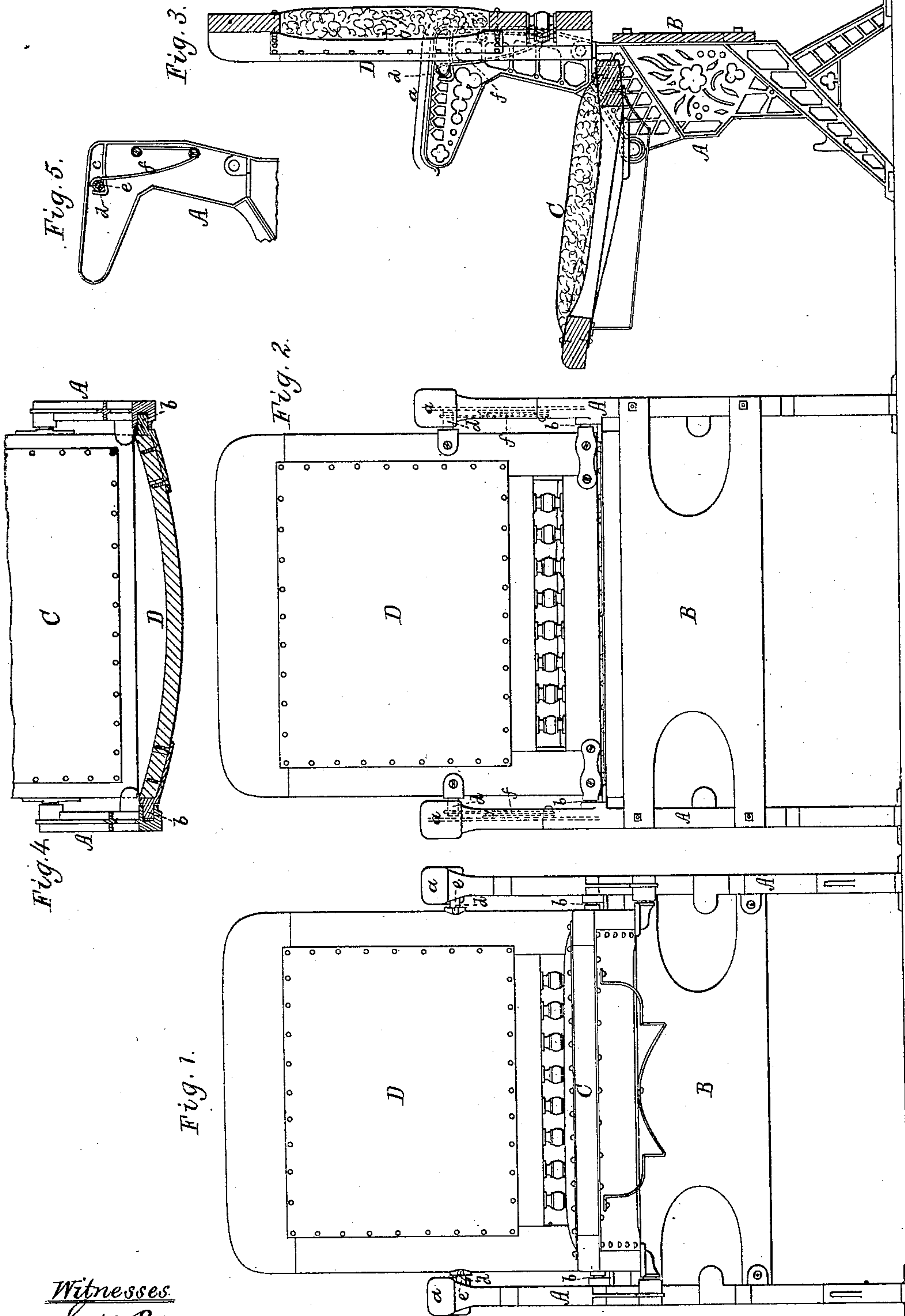
(No Model.)

H. J. HARWOOD.

FOLDING CHAIR.

No. 275,206.

Patented Apr. 3, 1883.



Witnesses.

*S. N. Piper*  
*E. B. Pratt*

Inventor.

*Herbert Joseph Harwood.*  
*by R. H. Eddy atty.*



# UNITED STATES PATENT OFFICE.

HERBERT J. HARWOOD, OF LITTLETON, ASSIGNOR TO THE HARWOOD CHAIR SEAT COMPANY, OF BOSTON, MASSACHUSETTS.

## FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 275,206, dated April 3, 1883.

Application filed January 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT JOSEPH HARWOOD, of Littleton, in the county of Middlesex, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Folding Chairs; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, Fig. 2 a rear view, and Fig. 3 a transverse section, of a chair provided with my invention, the nature of which is defined in the claim as presented. Figs. 4 and 5 are hereinafter described.

The improvement is to cause the chair-back to automatically assume or move into an upright position, on a person leaving the seat, while sitting thereon and bending his body forward. This chair is of the kind generally used in theaters or public halls, and having what is termed a "turn-up seat."

In carrying out my invention the back of the chair is at its lower corners or part pivoted to the chair-frame, and, with the latter, is provided not only with means of arresting such back in its upright and rearward positions, but with means of automatically moving it (the said back) forward from its rearward or inclined position into an upright one.

In the drawings the chair-body is shown as composed of the two leg and arm rest frames A A, and their connection bar or piece B, arranged as represented, the arm-rests *a a* being at the upper parts of the frames A A, which are usually of cast-iron.

The folding or turn-up seat C is arranged between and pivoted in the usual manner to the two frames A A, so as to be capable of being turned from a sitting into an upright position.

The chair-back D, at or near its lower corners, is hinged to the body or pivoted to the two frames A A. Fig. 4 is a horizontal section taken through the back and its pivots and the said two frames, the two pivots being shown at *b b*. Furthermore, there is in each of the arm portions of the frames A A a long recess or groove, *c*, to receive a stud, *d*, projecting from the chair-back, such stud having

upon it a tubular cushion, *e*, of india-rubber. There is also fixed in and to each frame A a spring, *f*, which at its free part bears against the stud, extended into such frame, such spring being adapted to press the stud forward in the groove *c*, and thereby force the chair-back into an upright position. When the back is inclined its studs bring up against the rear ends of the grooves *c*, and when such back is upright the studs bear against the front ends of the grooves.

From the above it will be seen that when a person sitting on the seat of the chair may move his body backward against the chair-back the latter will be forced rearward, and will be arrested in an inclined position by the studs bringing up against the rear ends of the grooves. On the sitter bending forward or rising from the chair the back will automatically assume an upright position in order to render it easier for a person to pass between the chair and another such chair when immediately in rear of it.

Fig. 5 is an inner side view of a portion of one of the frames A, showing the arrangement of the spring *f*, groove *c*, and stud *d*.

With chairs provided with backs pivoted to their side frames and automatically movable forward, as described, important advantages are gained over chairs with stationary inclined backs, for not only can persons pass more easily between two of the chairs when one is in front of the other, but such chairs under such conditions may be placed nearer to each other, thus enabling more chairs to be arranged in a given space than can be with chairs having stationary inclined backs.

I am aware that a chair has been devised having a hinged back which is forced back by the occupant and drawn forward by a spring, and I lay no broad claim thereto. Also, a chair has been devised having a hinged back and seat, in which the latter limits the movement of the former, and the back is normally held in an inclined position by a spring. I do not therefore claim a hinged seat and a hinged spring-acted back; but

What I do claim is—

A folding chair of the class set forth, hav-

ing the following parts, to wit: the frames  
A A, having the slots *c c* in their arm por-  
tions, the turn-up seat C, the back D, pivoted  
at or near its lower corners to the frames A  
5 A, and having the studs *d*, which enter slots  
*c c*, and springs *f f*, placed within frames A  
A, and bearing against the rear side of the

studs *d d*, all constructed and arranged as and  
for the purpose set forth.

HERBERT JOSEPH HARWOOD.

Witnesses:

R. H. EDDY,  
E. B. PRATT.