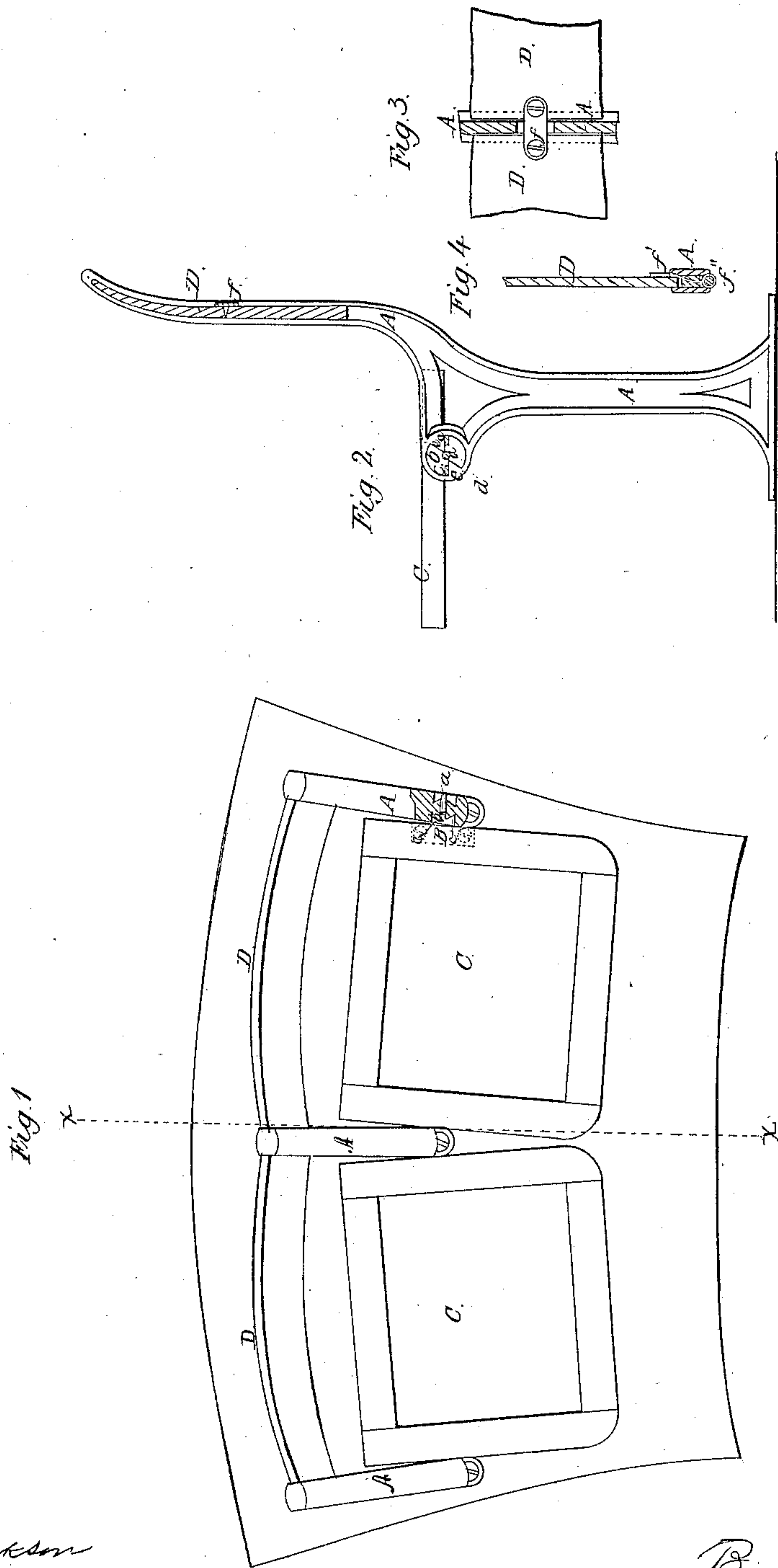


*B. Koechling,*

*Opera Chair,*

*N<sup>o</sup> 62,428,*

*Patented Feb. 26, 1867.*



*Witnesses:*

*J. A. Jackson*  
*Wm. Freeman*

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# United States Patent Office.

BERNHARD KOECHLING, OF NEW YORK, N. Y.

Letters Patent No. 62,428, dated February 26, 1867.

## IMPROVED FOLDING CHAIR.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, B. KOECHLING, of the city, county, and State of New York, have invented a new and useful improvement in Folding Chairs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in that class of chairs which are generally used for opera houses, theatres, and similar localities. The invention consists in the manner of hanging the seat to the side frames, which is done in such a manner that, when any number of chairs are to be placed in a convex or concave line, the devices for attaching the seat will always answer as they are. In most cases where the chairs are not placed in a straight line, the holes which are bored through the side frames to receive the pin on which the seat swings, must be arranged separately on each chair, to agree with the position of the same on the curved line. By the use of my improvement I can manufacture or cast any amount of side frames and seats, and all parts can be put together as they are, no matter if the chairs are to be placed into a straight or curved line. Provision is also made that the seats on my chair may be turned up or down at pleasure. In the accompanying drawings my invention is illustrated—

Figure 1 being a plan or top view of two of my chairs.

Figure 2 is a vertical cross-section of a chair, the plane of section being indicated by line *x x*, fig. 1.

Figures 3 and 4 are detail views, showing the manner of attaching the back to the side frames, and will be hereinafter referred to.

Similar letters of reference indicate like parts.

The side frames *A* of the chair are each provided at their front extremities with a hole, *a*, through which a pin, *b*, on the gudgeon *B* passes. The gudgeons *B* are secured to the under side of the seat *C* by means of screws, or in any other analogous manner. Each gudgeon is, beside the pin *b*, provided with two triangular stop-pins, *c c*. These fit into a circular mortise, *d*, which is cut into either side of the side frames *A*, said mortises being deeper around the circumference than at the centre; thus they are adapted to the shape of the pins *c*. (See fig. 1.) In each mortise *d* are arranged two triangular stops, *e e'*, (fig. 2,) against which the stop-pins *c* strike when the seat is turned down or up. In the former case, that is, when the seat is turned down, one pin *c* will strike the upper surface of the stop *e*, while the other pin *c* strikes against the under side of stop *e'*. Thus the seat is firmly held both in front and behind the pivoting point *b*. When the seat is turned up, one pin *c* strikes against the rear side of the stop *e*, while the other pin *c* touches the front surface of the stop *e'*. The triangular stop-pins *c c* will always reach sufficiently far into the mortise, even when the chairs are set in a curve, and not in a straight line. The side pieces *A* are made of cast iron, or other suitable material, and they are provided with grooves on each side to receive the backs *D*. Said backs are pressed, of wood or any other suitable material, and they are retained in position by metallic straps *f*, which pass through slots *g* in the side pieces *A*, (as seen in fig. 4, which is a sectional rear elevation of a portion of two backs *D*,) which are secured to a side piece. These slots are longer than the width of the straps, so that said straps are free to move up or down, and that the backs can readily accommodate themselves to the formation of the floor. The strap *f'*, at the end of a row of chairs, is different from those in the middle, being provided with a small hook, *f''*, which catches over the outer edges of the slot, as shown in fig. 3, which is a horizontal sectional view of a back, *D*, attached to a side piece, *A*. By this arrangement, chairs for opera houses and other similar localities can be made easily, and can, without difficulty, be adapted to any horizontal as well as vertical deviations from a straight line.

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

1. I claim the arrangement of the stop-pins *c c*, which fit into the mortise *d*, as seen, and by which the seat *C* is supported both in rear and front of the pin *b* on which the seat is hung, substantially as herein shown and described.

2. I claim the straps *f*, fitted in oblong slots in the side pieces *A*, in combination with the backs *D*, substantially as and for the purpose herein shown and described.

BERNHARD KOECHLING.

Witnesses:

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ALEX. F. ROBERTS.