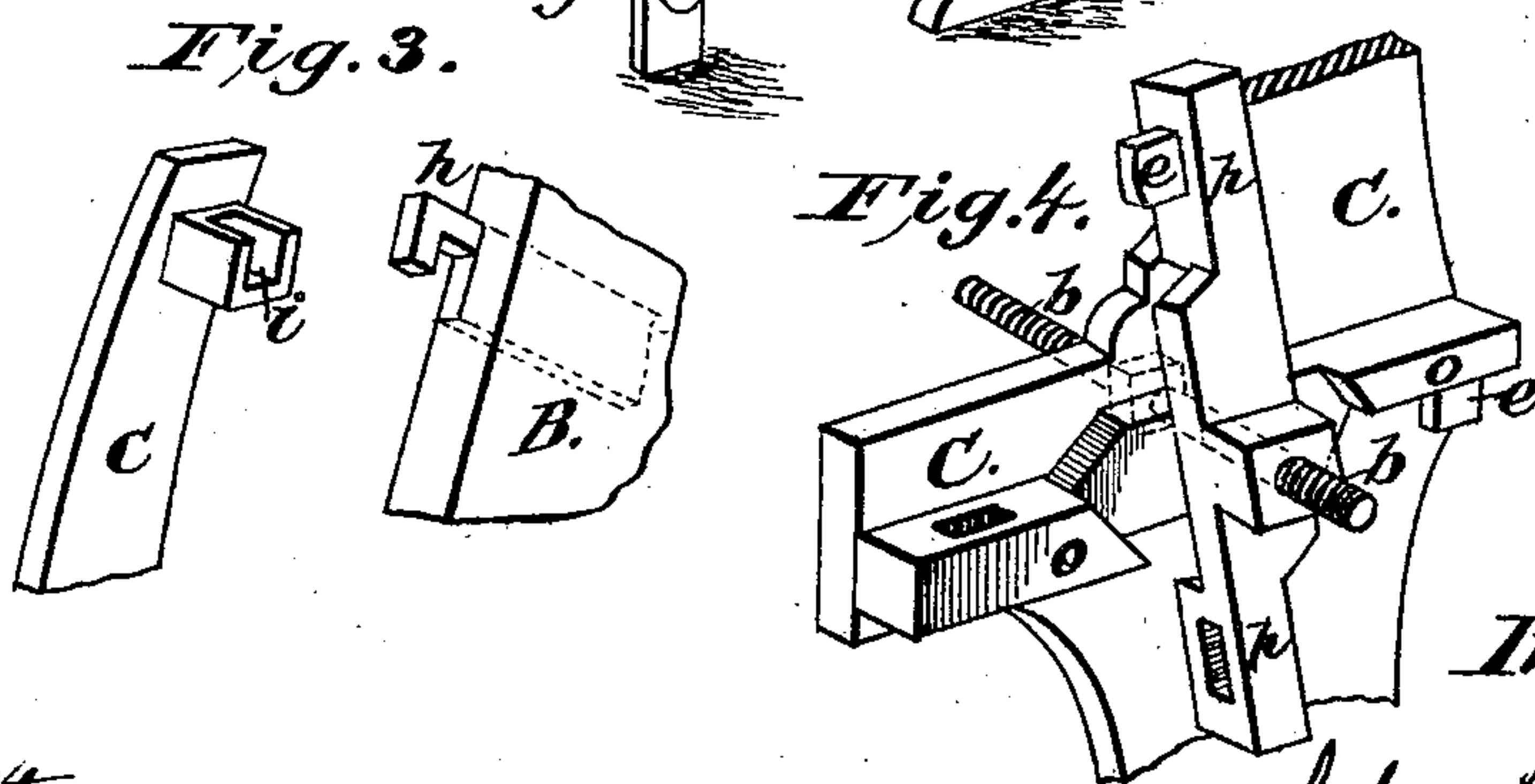
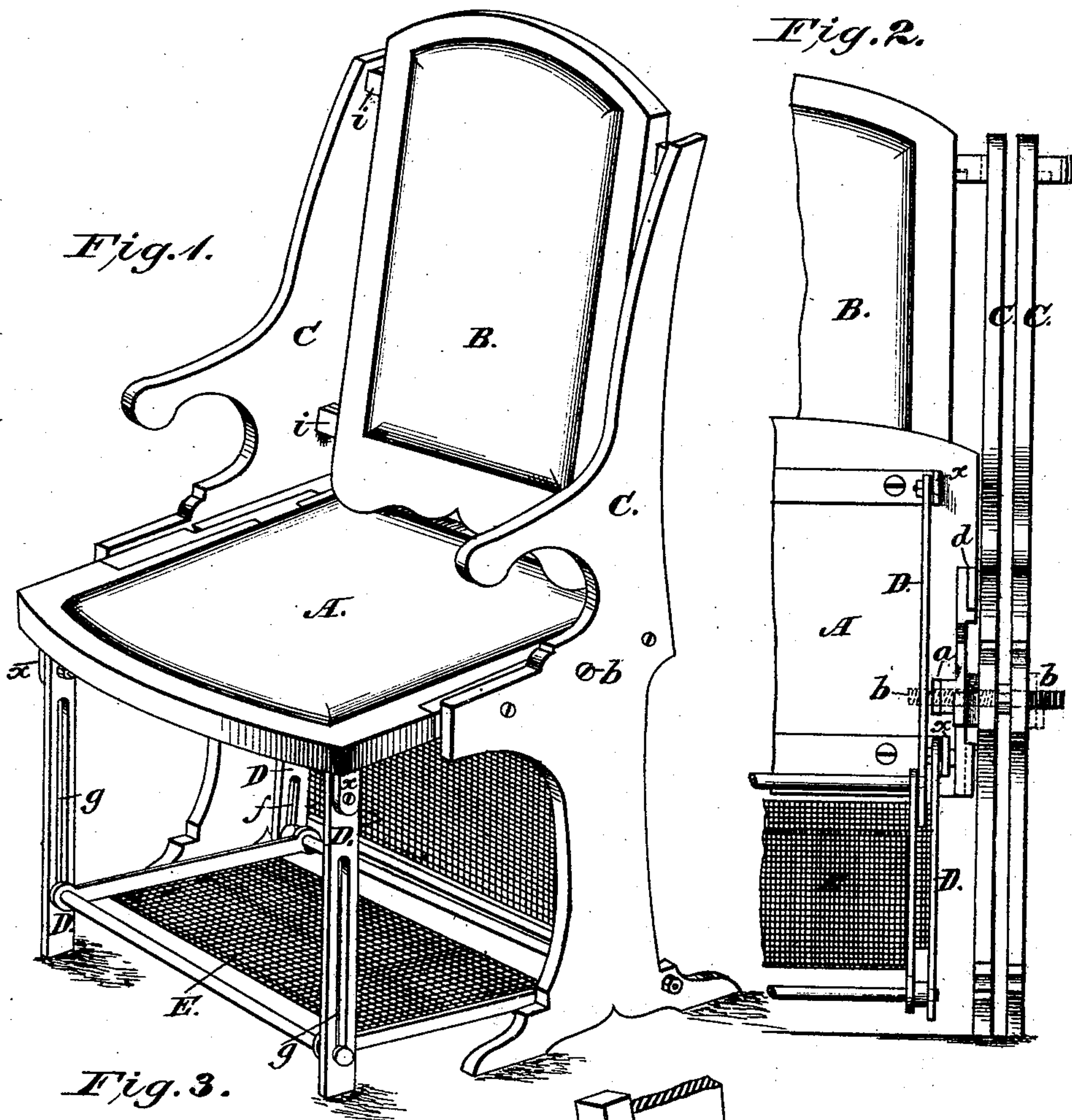


J. RICHARDSON.
Opera Chairs.

No. 155,107.

Patented Sept. 15, 1874.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN RICHARDSON, OF NEW YORK, N. Y.

IMPROVEMENT IN OPERA-CHAIRS.

Specification forming part of Letters Patent No. **155,107**, dated September 15, 1874; application filed October 24, 1873.

To all whom it may concern:

Be it known that I, JOHN RICHARDSON, of the city, county, and State of New York, have invented an Improvement in Opera and other Chairs; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a folding opera-chair with my improvement attached. Fig. 2 is a front view of a similar chair with the seat folded up, and showing the connection with the chair next to it. Fig. 3 is a detailed view of the joint by which the back is removably secured in its place; Fig. 4, the joints and catches by which the seat is stopped and the sides are prevented from spreading.

My invention relates to an improvement in chairs for theaters, public halls, and other places where compactness while sitting and facility of ingress and egress while moving are the desideratum, and where the seat is made to fold up to accomplish this end.

My invention consists, primarily, in providing a place underneath the seat of a chair or stool for the reception of a hat or other article; and secondly, in providing the seat with catches to prevent the sides from spreading; and thirdly, means for guiding the shelf or receptacle in its folding movements.

In the drawings, A represents the seat, B the back, and C the sides, of a chair. The seat may be hung in bearings and folded up, as in Fig. 1, or stationary. The seat A of Fig. 1 is hung in bearings *b*, which extend through the sides into the seat, back of the center of gravity, enabling it to fall into place by its own weight, unless it is raised beyond a vertical position, when it will fall against the back and remain elevated.

The bearings *b*, when two or more chairs are to be secured together, are made with a polygonal center, with a right and left screw upon each side, Figs. 2 and 4, which screw into nuts *a*, Fig. 2, embedded into each seat, thereby forming the connection between the

chairs as well as pivoting the seats in the chairs.

Upon the inner surface of the sides of the chairs are secured stops *o*, and halved into these are similar stops, *p*, upon the seats. These stops prevent the seat from falling below a horizontal position.

To prevent the sides of the chair from spreading, which would allow the seat to drop when bearing a heavy weight, and which is the case in opera-chairs in common use, I apply to the stops aforesaid projections, as at *d*, Fig. 2, or tenons, as at *e*, Fig. 4, which enter recesses or mortises and prevent the sides from spreading and the seat from falling.

Upon the under side of the seat, at each corner, are lugs *x*, into which are hinged braces D, the front two of which extend down to the floor, and act as legs to relieve the strain upon the stops *o* and *p*.

Attached to the bottom of the braces D by means of hinge-joints is a frame or bottom, E, consisting of wire-gauze or other material, and a similar material incloses the space between the rear braces, forming a receptacle into which may be placed hats or other articles when not in use.

All of the connections of this receptacle being hinged joints, when the chair-seat is raised, of course, the bottom E will rise with it and assume the position as seen in Fig. 2. A short slot, *f*, near the bottom of the rear braces D, allows the bottom to be again folded or turned up against the under side of the seat, to facilitate sweeping the floor.

The same result may be accomplished, also, by raising the front of the bottom E, the bearings moving in the slots *g* without raising the seat at all. This, however, is more suitable in chairs whose bottoms are stationary, such as pews in churches, &c.

The back B has embedded into its sides hooks *h*, Fig. 3, which engage in eyes *i*. These fastenings secure the back in the chair, yet allow it to be removed, as will readily appear.

Having fully described my invention, what

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

1. In combination with the pivoted seat of a folding chair, the folding shelf, substantially as set forth.

2. In combination with the pivoted seat of a folding chair, the double folding receptacle, substantially as set forth.

3. In combination with the pivoted seat of a chair, the catches *d* and *e*, substantially as set forth, to prevent the sides from spreading and hold the seat in position.

4. The combination of the jointed braces *D*, provided with slots *g* and the bottom *E*, as and for the purpose set forth.

The above specification of said invention signed and witnessed at New York city this 21st day of October, A. D. 1873.

JOHN RICHARDSON.

Witnesses:

W. G. BERGEN,
JNO. VINCENT.