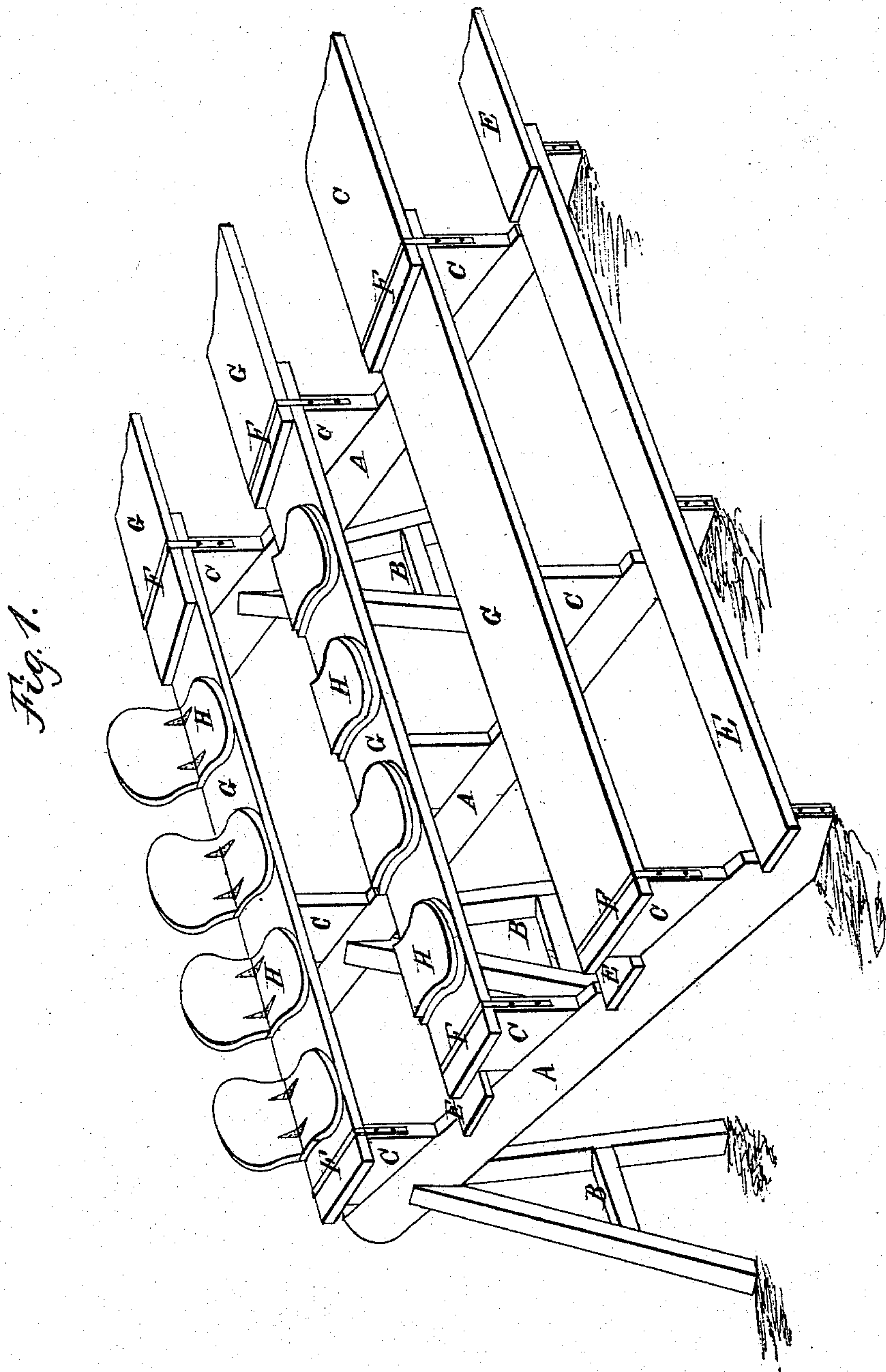


J. E. KELLEY.

PORTABLE SEATS FOR CIRCUSES, &c.

No. 172,269.

Patented Jan. 18, 1876.



WITNESSES

Gerrill Lewis
Melville Church By

INVENTOR

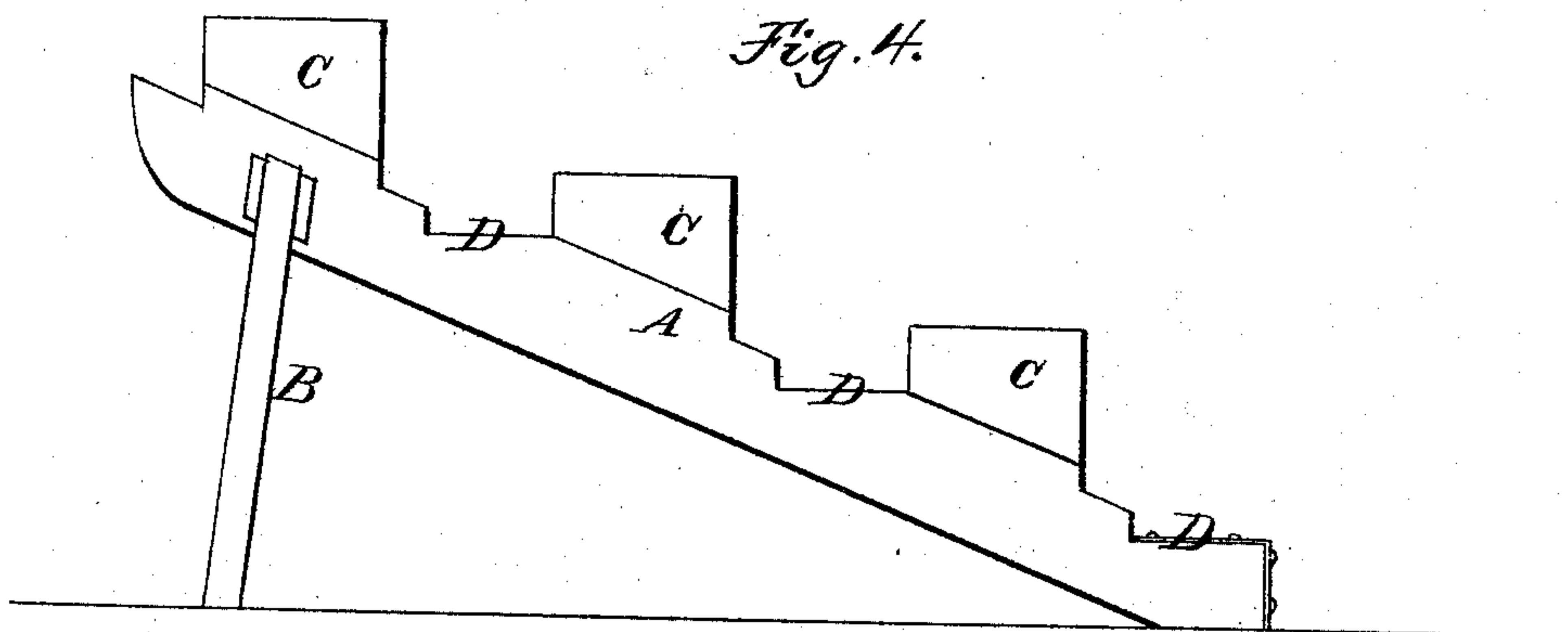
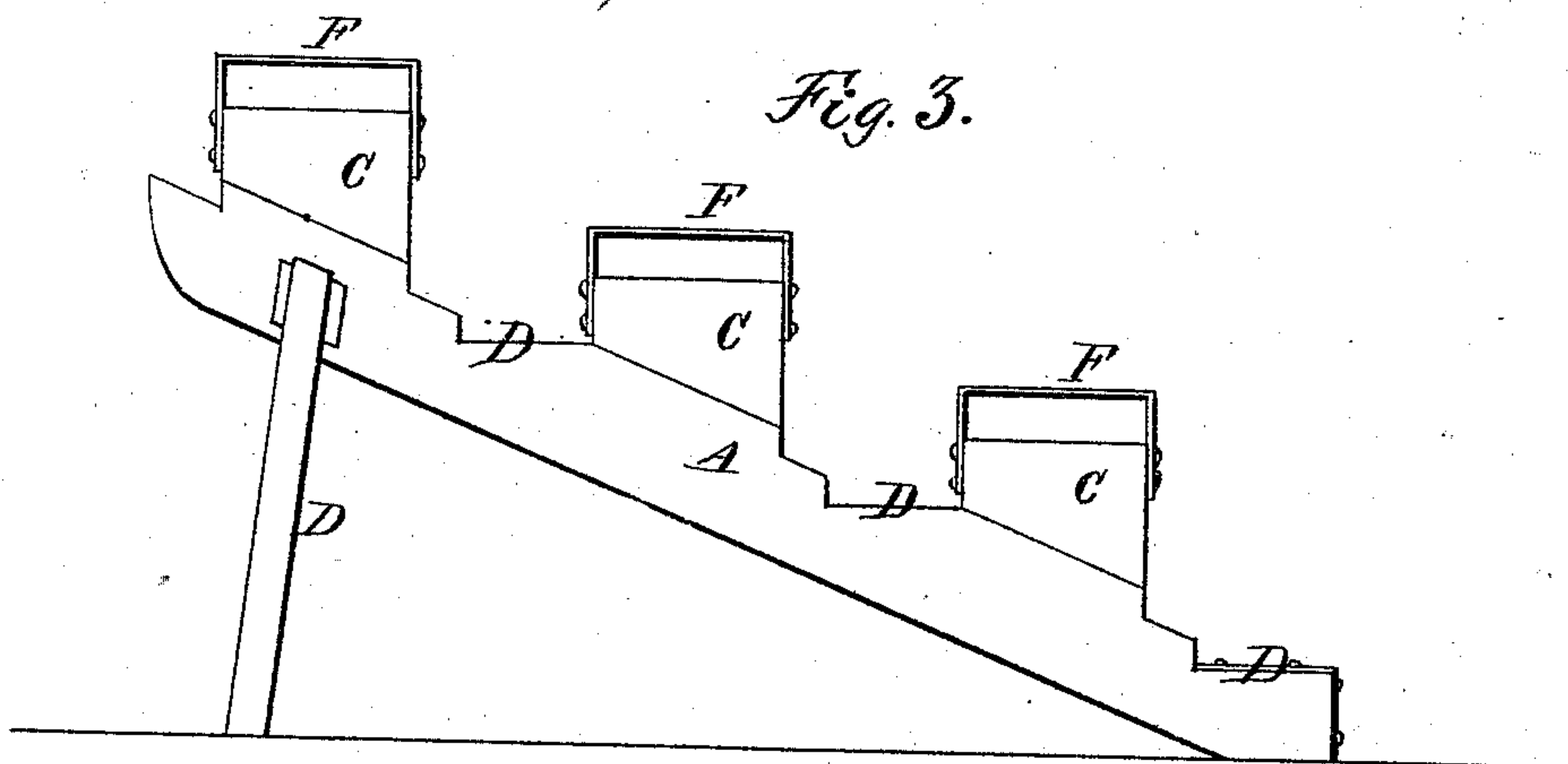
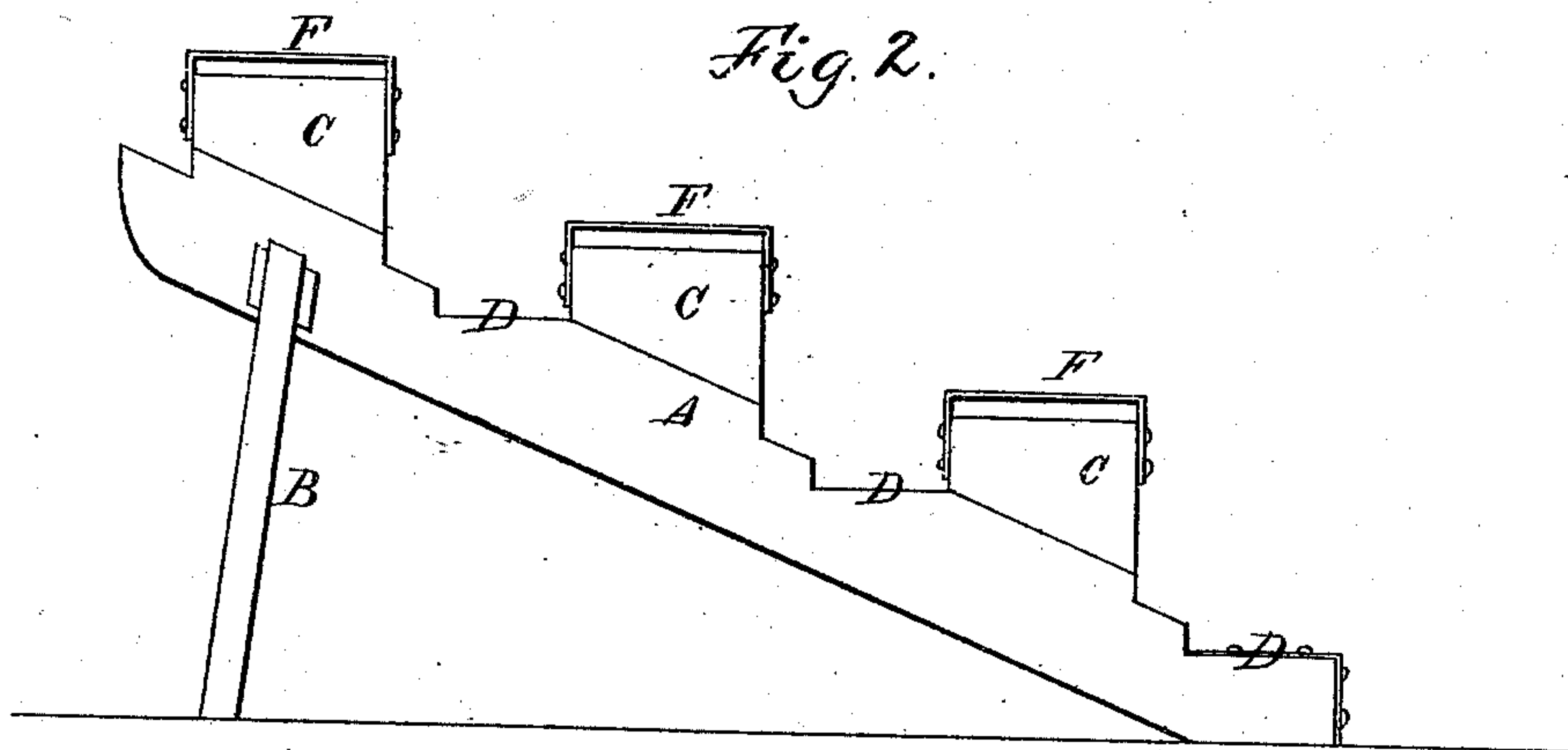
James E. Kelley.
By Will H. H. H. H.
His Attorneys.

J. E. KELLEY.

PORTABLE SEATS FOR CIRCUSES, &c.

No. 172,269.

Patented Jan. 18, 1876.



WITNESSES

Grinnell Lewis
Melville Church

By

INVENTOR

James E. Kelley
By Hill & Desautels
His Attorneys.

UNITED STATES PATENT OFFICE.

JAMES E. KELLEY, OF NEW YORK, N. Y.

IMPROVEMENT IN PORTABLE SEATS FOR CIRCUSES, &c.

Specification forming part of Letters Patent No. **172,269**, dated January 18, 1876; application filed June 28, 1875.

To all whom it may concern:

Be it known that I, JAMES E. KELLEY, of New York city, in the county and State of New York, have invented new and Improved Portable Seats for Theaters, Circuses, Amphitheatres, Hippodromes, Concert-Halls, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a perspective view of a tier of seats constructed in accordance with my invention. Fig. 2 is a side elevation of an end upright for a section of the seats. Fig. 3 is a side elevation of an upright used for joining two sections of seats, and Fig. 4 is a similar view of a central upright for supporting the center of a section.

Similar letters of reference in the accompanying drawings denote the same parts.

My invention relates to that class of portable seats for circuses, theaters, amphitheatres, &c., which are formed by arranging a series of long seat-boards upon a number of parallel inclined uprights in such a manner that the seats shall rise above each other in tiers. As usually constructed, the uprights are notched upon their upper edges to receive the boards, which are distant from each other only the vertical length of the notches. This construction is objectionable for the reason that to obtain the necessary leg and knee room for the occupants the seats must be placed at such a distance apart upon the uprights that considerable space is wasted or lost which might otherwise be made available for additional seat-boards.

The first part of my invention has for its object to utilize this lost space, and at the same time provide sufficient leg and knee room for the occupants of the seats. To this end it consists in providing the long inclined uprights, at suitable intervals, with a series of risers or vertical extensions to support the seat-boards, so that the space from the top of the seat-boards to the foot-boards between the risers shall be increased vertically, and thereby enable a person to sit in an upright comfortable position, with the feet drawn in toward the front line of the risers, instead of being extended forward to the seat-board below, as is the case when notched uprights are used. By this

provision the risers may be placed nearer together upon an upright, and therefore a greater number of seat boards can be used than upon the notched uprights. The invention also consists in the combination of metal straps with the risers to hold the seat-boards in place, and in the combination of the foot-boards with the risers, by which such boards are secured in position against casual displacement.

The second part of my invention consists in providing the seat-boards with upholstered seats, which, when arranged in tiers for use, can be folded up to form a gangway or passage at any point from the bottom to the top tier, the upholstered portions coming together, so as to protect both from being injured by rain, and from being soiled by persons stepping from one seat to another in passing up and down the gangway.

In the accompanying drawings, A A A are long uprights—preferably about twenty feet in length—arranged in an inclined position parallel to each other, and supported upon suitable jacks or horses, B. Their upper edges are provided at regular intervals, with short seat-risers C, and with notches or level surfaces D in front of the seat-risers, to receive the foot-boards E. I employ two or three of these uprights to form a tier of seats; but more than three may be employed, if preferred. I regard this number as sufficient, however, under all circumstances. The seat-risers of the end uprights are each provided with a strong metal strap at their upper ends, by which loops F are formed to receive the ends of the seat-boards G, extending across the three uprights of a section, as shown in Fig. 1. The risers of the central upright are not provided with loops, but act mainly as vertical supports for the seat-boards, although, of course, the loops may be employed, if desired. The loops of the end uprights not only guide the seat-boards, but prevent them from slipping off the risers at the front and rear, as will be readily understood. The foot-boards are held in place by the back edges of the risers and the vertical faces of the notches, as shown, but may be easily removed or lifted from their places. By constructing the uprights with risers to support the seat-boards I am enabled to apply a greater number of seat-boards upon uprights of a given

length than have heretofore been used, because the elevation of the risers admits of their being placed nearer together, and at the same time affords the necessary leg and knee room. The seat-boards are provided at proper intervals with seats H, composed of two leaves hinged together at one edge, and neatly carpeted or upholstered. The hinged edges are rabbeted, so that the back portion, when open and in use, shall bear against the portion secured to the seat-board, and therefore prevent the edge of such board from being split or broken off. The whole strain or leverage is sustained by the seat proper instead of the seat-board. The backs are adapted to be folded down upon the seat portion for transportation, and to form a gangway or passage at any point from the bottom to the top of a tier. When folded, the upholstered or carpeted portions come together, and are therefore protected from being injured by rain, and from being soiled by persons stepping from one seat to another in passing up and down the gangway, the outer or uncovered surface of the seat-backs affording ample foot-supports or steps.

When two or more tiers of seats are to be united the seat and foot boards are overlapped upon an end upright of one tier, the risers of such upright being provided with metal loops sufficiently large to permit the overlapping of the seat-boards, as shown in Fig. 1. By this construction I dispense with one upright for each intermediate tier of seats and do away with the short foot-boards between tiers by which stairs or passages are usually formed.

The tiers of seats are readily and easily put up, while the parts are so completely fitted together and braced from each other that all danger of their breaking down or being casu-

ally displaced is obviated. When the seats become filled the weight of the occupants causes the overlapping boards to more completely bind and support each other.

Having thus described my invention, what I claim is—

1. The combination of the risers C with the uprights A and seat-boards G, substantially as described, for the purpose specified.

2. The metal straps F, combined with the seat-risers, as described, whereby loops are formed on the tops of the risers, to prevent the seat-boards from slipping off to the front and rear thereof, substantially as described.

3. The foot-boards E, held in place upon the uprights A, between the backs of the risers C and the vertical faces of the notches in the uprights, substantially as described.

4. The portable seats for theaters, circuses, &c., composed of the inclined uprights A A A, the foot-boards E, fitting upon the uprights, the seat-boards G, fitting within loops upon the end risers C of the uprights, and the hinged seats H H, adapted to fold down upon the seat-boards, substantially as described, for the purposes specified.

5. In seats for circuses, &c., the seat-boards provided with a series of independent folding seats, each composed of two leaves, one of which is secured to the seat-board, and the other forming a closed back to fold down upon the seat-leaf, so as to protect the proximate faces of the two, and form a step to be used in passing up or down a tier of seats, substantially as described.

JAMES E. KELLEY.

Witnesses:

W. J. WORRELL,
T. M. BERTINE.