

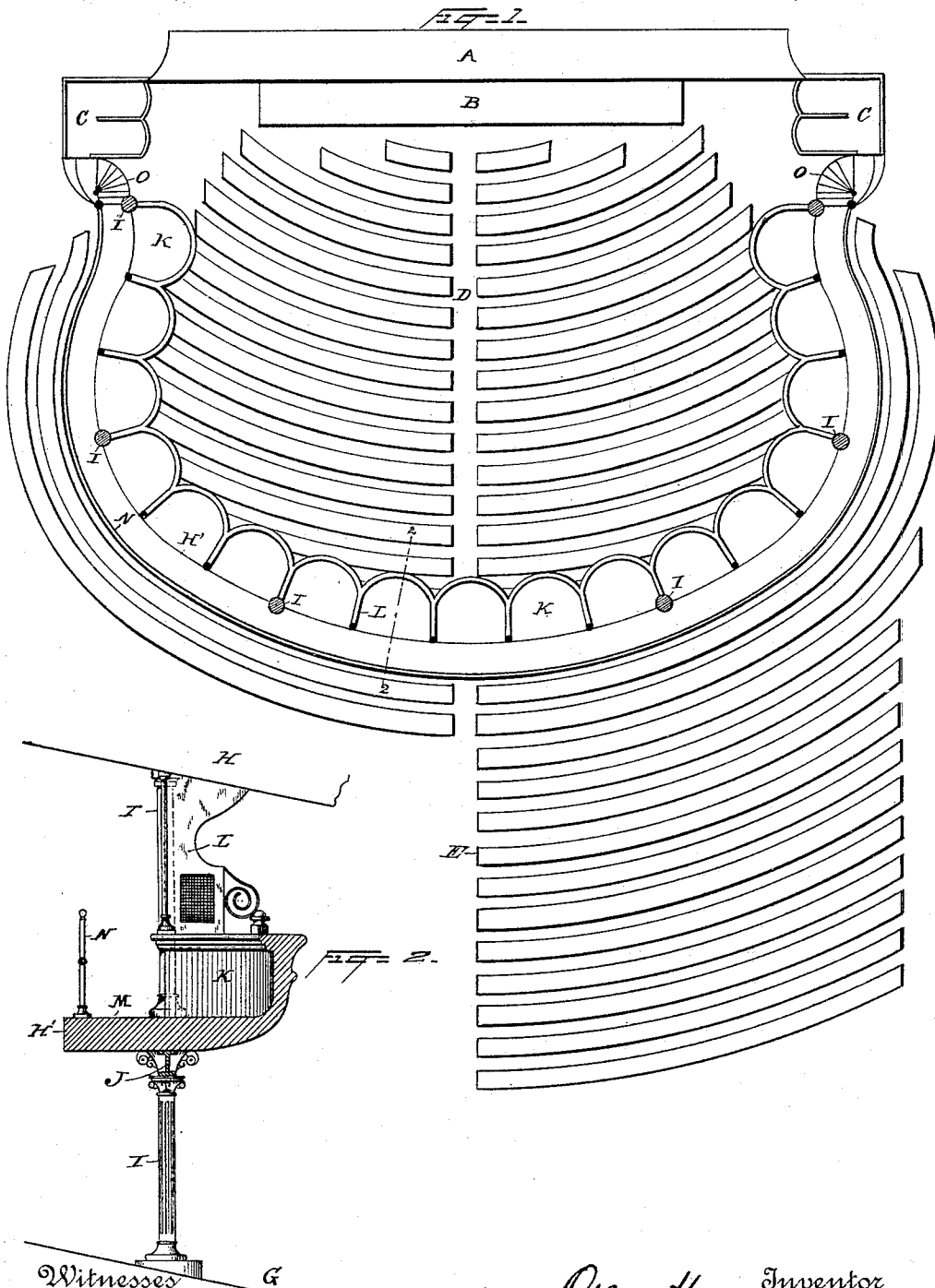
(No Model.)

2 Sheets—Sheet 1.

O. HAMMERSTEIN.
EXHIBITION BUILDING.

No. 469,472.

Patented Feb. 23, 1892.



Witnesses
Irons & Clark.
H. F. Oberly

Oscar Hammerstein Inventor
By his Attorneys
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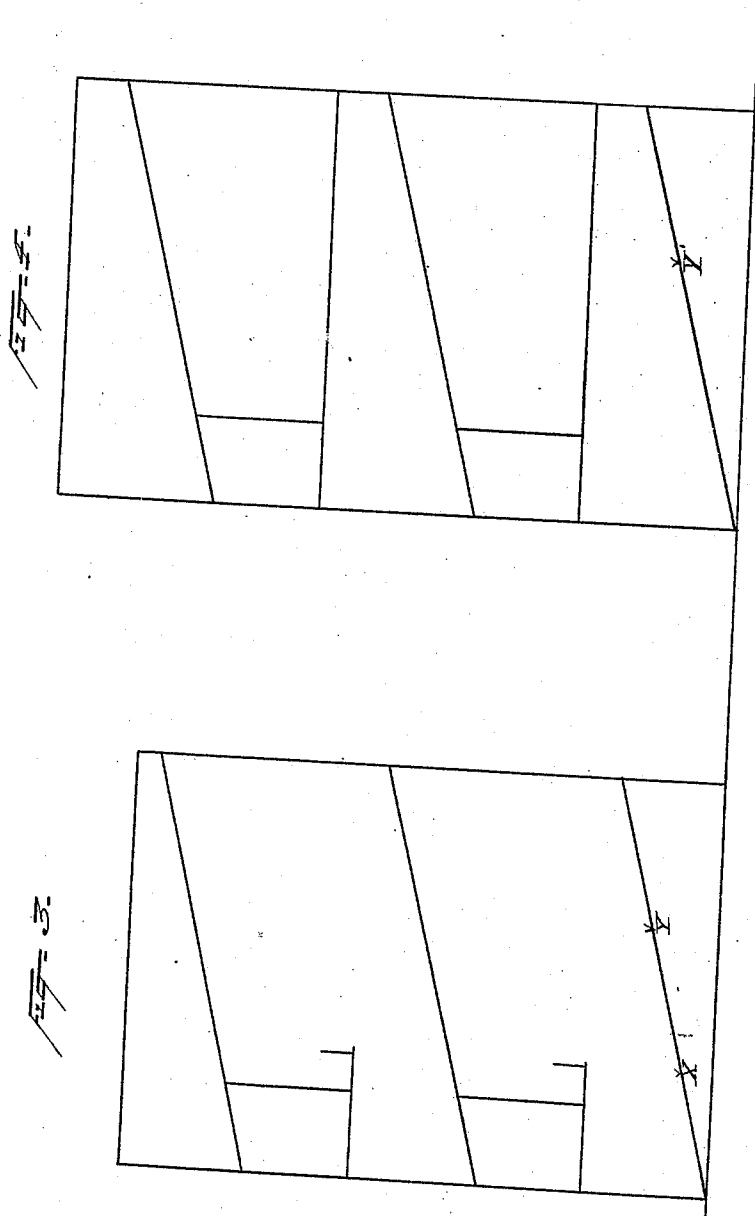
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O. HAMMERSTEIN.
EXHIBITION BUILDING.

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Witnesses

Thomas A. Clark,
C. F. Oberly

Oscar Hammerstein Inventor
By his Attorneys
Dyer Healy

UNITED STATES PATENT OFFICE.

OSCAR HAMMERSTEIN, OF NEW YORK, N. Y.

EXHIBITION-BUILDING.

SPECIFICATION forming part of Letters Patent No. 469,472, dated February 23, 1892.

Application filed April 17, 1891. Serial No. 389,319. (No model.)

To all whom it may concern:

Be it known that I, OSCAR HAMMERSTEIN, a citizen of the United States, residing at New York city, in the county and State of New York, have invented a certain new and useful Improved Exhibition-Building, of which the following is a specification.

This invention relates to a building for theatrical, operatic, and other exhibitions of a like nature, and especially to that class of such buildings which have heretofore contained a mezzanine story or floor provided with boxes or stalls.

The object of the invention is to preserve the arrangement of boxes or stalls heretofore located on the mezzanine-floor, while at the same time reducing the proportions of the building, and hence its cost of construction.

In the accompanying drawings, forming part of this specification, Figure 1 is a diagrammatic plan view of a theater embodying my invention, showing the lower floor and the sectional floor between said lower floor and the balcony above. Fig. 2 is a vertical section taken through the line 2 2 of Fig. 1, looking toward the left, showing the main floors with a sectional floor between; and Figs. 3 and 4 are diagrams illustrating the differences between the old way of arranging mezzanine boxes or stalls and my improved way.

Referring to Fig. 1, A represents the stage; B, the space reserved for the orchestra; C C, the side boxes; D, the arrangement of orchestra-chairs; E, the arrangement of chairs immediately in the rear of the orchestra-chairs and under the balcony.

Referring to Fig. 2, G represents the lower floor of the theater, which, as shown, has an inclination from the stage toward the rear of the house, as is usual in buildings of this class. H is the balcony-floor, which also is inclined, as is usual. H' is the sectional floor.

I, Figs. 1 and 2, are a series of pillars extending from the lower floor to the balcony-floor and supporting the front end of the latter.

J, Fig. 2, is a cross-section of an iron girder which extends between the pillars I, being let into or otherwise supported upon the same. Upon the girders J is supported the

sectional floor H', a series of boxes or stalls K being arranged thereon. These boxes or stalls are separated by suitable ornamental partitions L. Access to these boxes or stalls is had from a landing M in the rear thereof, which landing is provided with a guard-rail N, and is reached by staircases O at each end thereof.

The novelty and utility of my invention will be better understood by reference to the diagrammatic drawings, Figs. 3 and 4. In these diagrams a scale of one-eighth of an inch to a foot is assumed, so that the relative dimensions of the two diagrams may be preserved exactly.

In Fig. 3, which illustrates my invention, the total height between the lower floor and balcony is assumed to be fourteen feet. Between the balcony and gallery the same height is assumed. The distance between the lower main floor and the sectional floor is assumed to be seven and one-half feet, and the height of said sectional floor itself six and one-half feet. Of course it will be understood that these dimensions are chosen merely for purposes of illustration. Assuming that the distance between the floor of the box and the floor beneath must be at least six feet at the lowest permissible point, we find in Fig. 3 that this point comes between the end of the landing of the boxes and the point X on the floor beneath. Assuming, also, that when an auditor is seated his line of vision would be about four feet from the floor, then by my improved plan the seats can be arranged as far back as the point Y without inconveniencing the auditors in any way. If, however, as in the old way, the mezzanine-floor were carried to the rear wall of the theater, then the available seating-space would end at the point X, as will be obvious.

Referring to Fig. 4, the disadvantages of the old plan and the advantages of my plan will be made apparent. Assuming the same scale as before, in order to obtain an equal seating capacity to that attained at the point Y of Fig. 3, it will be necessary to raise the mezzanine-floor two feet, as indicated at the point Y' of Fig. 4. The same increase in height will be necessary between the gallery-floor and balcony-floor. Therefore, in order

to obtain the same seating capacity by the old plan as I am enabled to obtain by my improved plan, it would be necessary to increase the height of the building two feet, assuming
5 the dimensions to be the same as I have taken. Usually, however, these dimensions are very much greater, and the height of the building would of course be increased in proportion, and hence a vast increase in ex-
10 pense of construction would follow. The presence of the continuous mezzanine-floor is also objectionable, as tending to poor ventilation and defective acoustic properties.

It will be obvious from the foregoing de-
15 scription that the essential novelty in my improved exhibition-building consists in arranging between any two main floors of such building a partial or sectional floor provided with boxes or stalls, to which access is had
20 from a landing arranged in the rear of said boxes or stalls, said landing being reached by a staircase or staircases arranged where desired, the sectional floor being supported on girders, as shown in the drawings, or in
25 any other suitable way. Such construction

decreases the height of the building when compared with the old plan, as while affording equal seating capacity, it assists in securing thorough ventilation, and also contributes toward the acoustic effects.

What I claim is—

1. In an exhibition-building, a lower inclined floor G, a balcony H, and a sectional floor H', substantially as set forth.

2. In an exhibition-building, a sectional floor provided with boxes or stalls, a landing, and a staircase leading thereto, substantially as set forth.

3. In an exhibition-building, a lower inclined floor G, two or more gallery-floors, and a sectional floor between the main and first gallery-floor and between the succeeding gallery-floors, substantially as set forth.

This specification signed and witnessed this 16th day of April, 1891.

OSCAR HAMMERSTEIN.

Witnesses:

J. A. YOUNG,
EUGENE COURAN.