May 13, 1969 J. H. BRUNSKOLE 3,443,835

COLLAPSIBLE CHAIR

Filed Jan. 23, 1968 Sheet 1 of 2

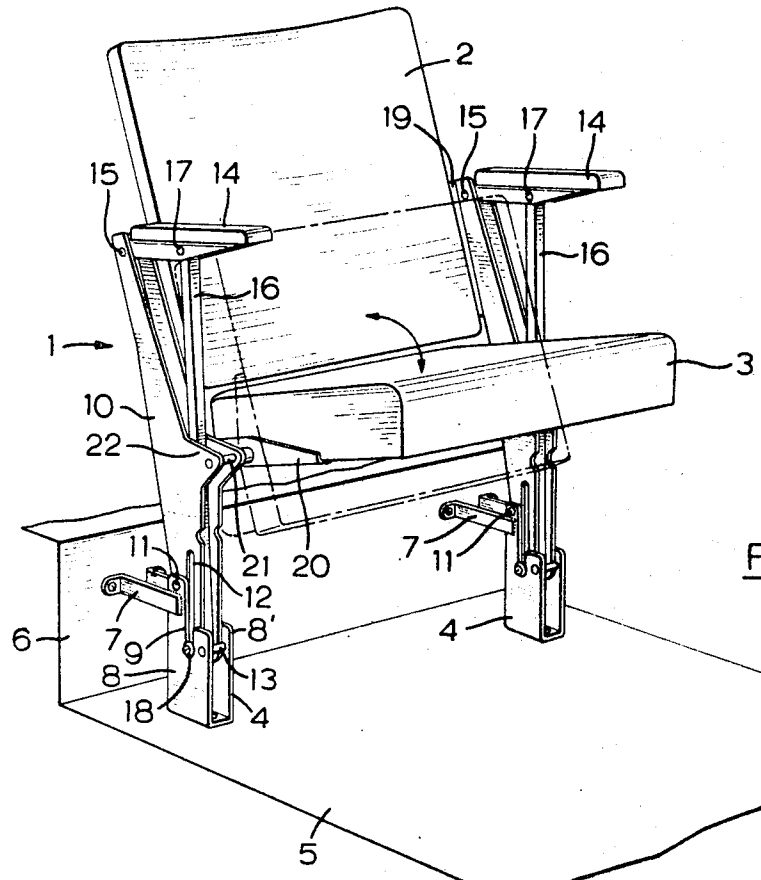


FIG. 1

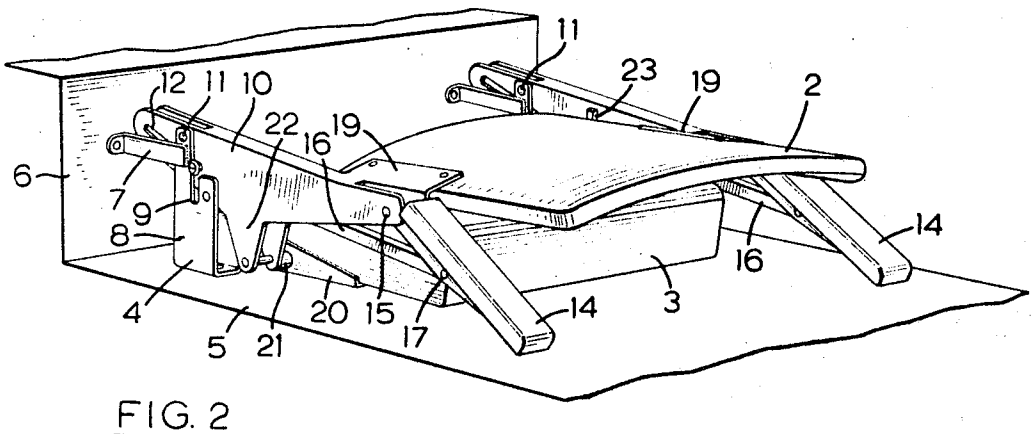


FIG. 2

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FIG. 4

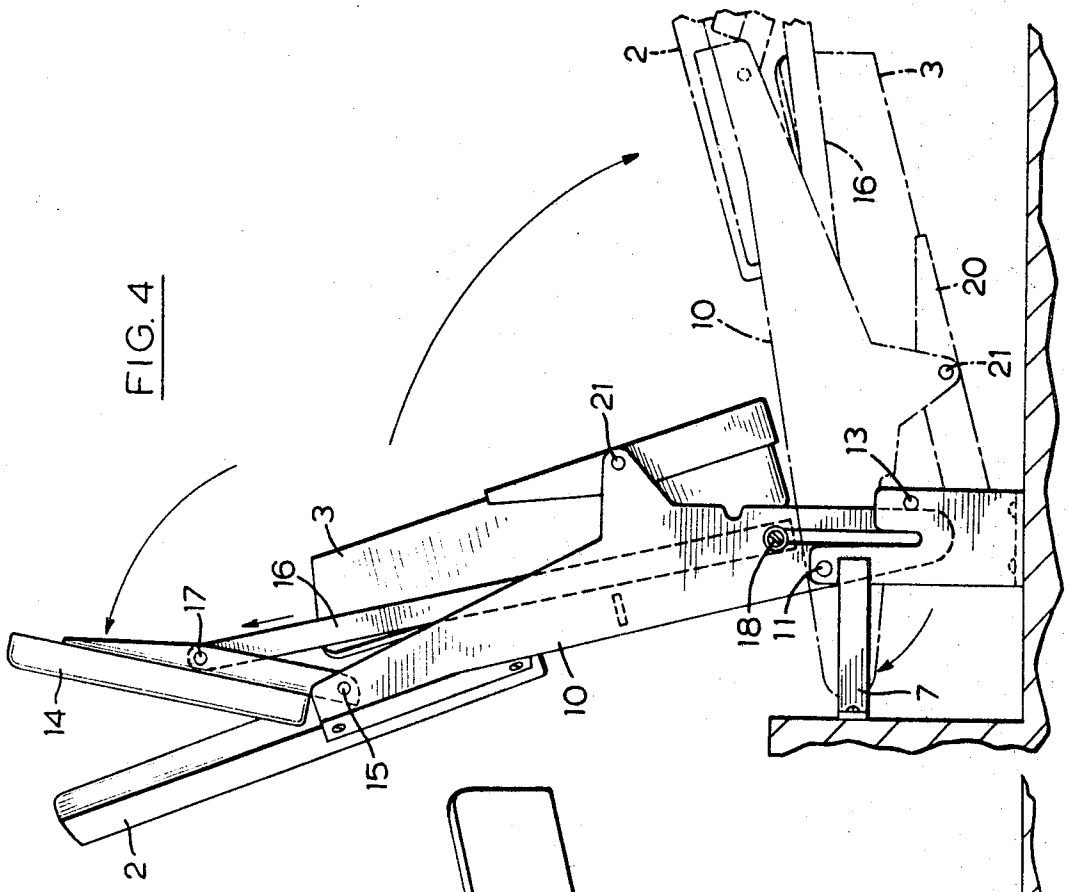
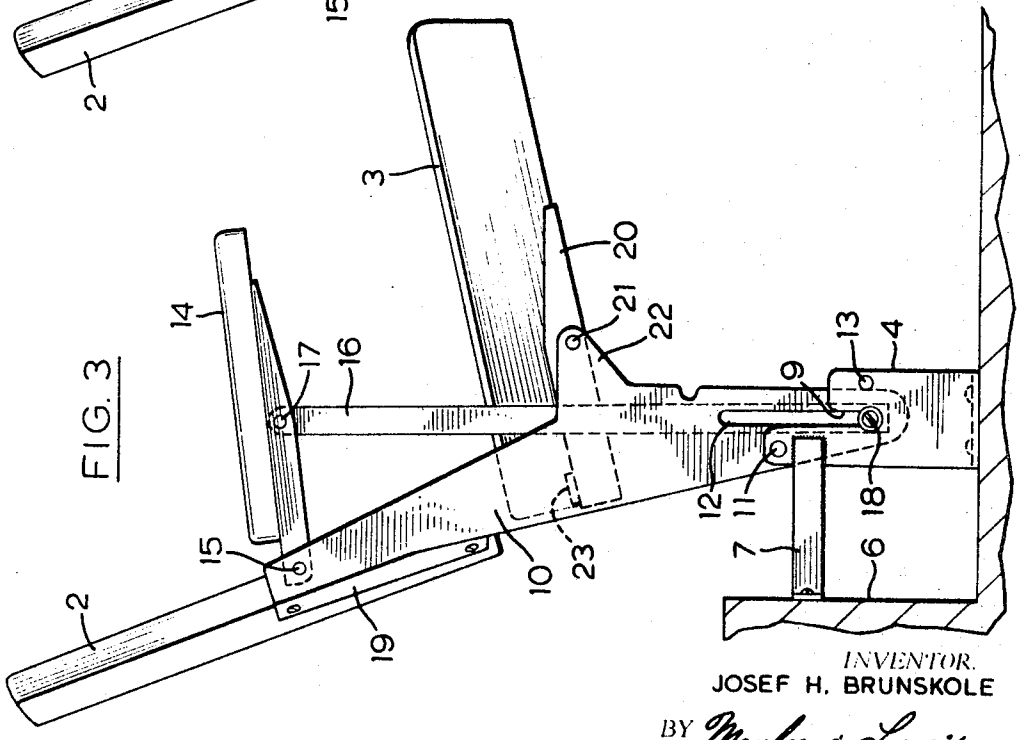


FIG. 3



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3,443,835

COLLAPSIBLE CHAIR

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Int. Cl. A47c 4/04
U.S. Cl. 297—35 7 Claims

ABSTRACT OF THE DISCLOSURE

The frame structure of a collapsible or folding seat includes a pair of side members which are pivotally connected to a pair of floor-mounted anchoring members, and locking means operable by the arm-rests of the seat are engageable with the anchoring members for locking or securing the seat in its erect position.

Background of the invention

This invention relates to collapsible or folding seats, more particularly for use in auditoria.

Collapsible or folding seats of the type to which the invention relates are usually mounted on the steps or risers of an auditorium floor, and such an arrangement imposes restrictive requirements as to the design of seats for any given auditorium according to the heights of the risers. The restriction is aggravated further by the necessity for accommodating the folding mechanism of the seat.

It is an object of the present invention to provide collapsible or folding seat which may be mounted directly on the floor of an auditorium irrespective of the riser height.

Another object of the invention is to provide a seat having a particularly simple and convenient folding or collapsing mechanism.

Summary of the invention

According to the present invention, a collapsible or folding seat is provided with a frame structure comprising a base providing a pair of upstanding, spaced apart anchoring members, each anchoring member having an open-ended slot therein, a pair of side members pivotally connected to the anchoring members for pivotal movement about a common horizontal axis between erect and collapsed positions, each side member having a slot therein which, when the side member is in the erect position, registers with the slot of a respective anchoring member, a pair of arm-rests pivotally connected to the side members, a rigid link pivotally connected to each arm-rest and extending downwardly therefrom, and a locking pin carried by each rigid link, the locking pins being movable along the slots in the side members by movement of the arm rests and being adapted to engage in the respective open-ended slots of the anchoring members to lock the side members in the erect position.

Brief description of the drawings

In order that the invention may be readily understood, one embodiment thereof will now be described by way of example with reference to the accompanying drawings, in which:

FIGURE 1 is a general perspective view of a collapsible folding seat according to the invention;

FIGURE 2 shows the seat in its collapsed position;

FIGURE 3 is a side elevational view of the seat in its erect position, and

FIGURE 4 is a side elevational view of the seat, the figure illustrating the movements of the seat components during folding of the seat.

Description of the preferred embodiment

Referring to the drawings, the collapsible seat comprises a frame structure **1**, a back rest **2**, and a seat portion **3**. The frame structure comprises a base providing a pair of upstanding, spaced apart anchoring members **4**, each anchoring member being directly secured to the floor **5** of an auditorium, for example, and being secured to the front face of a step or riser **6** of the floor by means of brackets **7**. Each anchoring member consists of a U-shaped plate providing a pair of parallel side portions **8**, **8'**, each of which is formed with a vertical open-ended slot **9**. A pair of side members **10** of the frame structure **1** are pivotally connected to the anchoring members **4** by pivot pins **11**, the lower portion of each side member **10** being formed with an elongated slot **12** which, when the side member is in the erect position, registers with the open-ended slot **9** of the respective anchoring member **4**. The frame structure **1** is thus capable of being moved to the collapsed or folded position shown in FIGURE 2, and movement of the frame structure from the erect position in a direction away from the collapsed position is prevented by stops or cross pins **13**, which are mounted in the anchoring members and are adapted to engage the front edges of the lower portions of the side members.

The seat is provided with a pair of arm-rests **14** which are pivotally connected to the upper ends of the side members **10** by pivots **15**, and a pair of rigid links **16** pivotally connected to the arm-rests **14** at **17** extend downwardly from the arm-rests, the lower end of each rigid link carrying a locking pin **18**. The locking pins are movable along the slots **12** in the side members by movement of the arm-rests **14**, and are adapted to engage in the open-ended slots **9** of the anchoring members for locking the side members in the erect position as shown in FIGURE 1.

The back rest **2** extends between the side members **10** and is connected thereto by brackets **19**.

The seat portion **3** comprises a cushion mounted on a seat frame **20**, the seat frame being pivotally connected to the side members **10** by pivots **21** fitted on forwardly extending projections **22** of the side members. The seat portion is thus movable from the normal seating position shown in FIGURE 1 to a tilted position shown in chain-dotted lines in FIGURE 1. The seating position is defined by stop members **23** formed on the frame structure, which stop members are adapted to engage the seat frame when in the seating position. The seat portion is preferably weighted so that it is biased to move to its tilted position when not occupied.

In order to fold the seat to its collapsed position from the erect position shown in FIGURE 1, the arm-rests **14** are lifted about the pivot **15**, thus raising the links **16** and withdrawing the locking pins **18** from the open-ended slots **9** of the anchoring members. When the locking pins **18** are disengaged from the slots **9**, the side members may simply be rotated about the pivot pins **11** to bring the seat in the position shown in FIGURE 2. Similarly, in order to bring the seat into the erect position for use, the back rest is raised so that the frame structure is rotated about the pivots **11**, the arm-rests being raised so that the locking pins **18** are clear of slots **9**. The arm-rests are then lowered to bring the locking pins **18** into the short vertical slots **9**, thereby holding the seat securely in the erect position.

What I claim as my invention is:

1. A collapsible seat having a frame structure comprising a base providing a pair of upstanding, spaced apart anchoring members, each anchoring member having an open-ended slot therein, a pair of side members pivotally connected to the anchoring members for pivotal move-

ment about a common horizontal axis between erect and collapsed positions, each side member having a slot therein which, when the side member is in the erect position, registers with the slot of a respective anchoring member, a pair of arm rests pivotally connected to the side members, a rigid link pivotally connected to each arm rest and extending downwardly therefrom, and a locking pin carried by each rigid link which locking pins are movable along the slots in the slide members by movement of the arm rests and are adapted to engage in the open-ended slots of the anchoring members to lock the side members in the erect position.

2. A collapsible seat according to claim 1, having a backrest extending between the side members and a seat portion extending between the side members.

3. A collapsible seat according to claim 2, wherein the seat portion is pivotally mounted between the side members for movement between a seating position and a tilted position.

4. A collapsible seat according to claim 3, wherein the seat portion is biased towards its tilted position.

5. A collapsible seat according to claim 2 or claim 3, wherein the seat portion comprises a seat frame and a cushion mounted thereon, said seating position being defined by stop members on the side members which are adapted to engage the seat frame.

6. A collapsible seat according to claim 1, 2 or 3, in which the anchoring members include stop means adapted to engage the side members to prevent movement of the side members from the erect position in a direction away from the collapsed position.

7. A collapsible seat comprising a base providing a pair of upstanding, spaced apart anchoring members, each anchoring member having an open-ended slot therein, a pair of side members pivotally connected to the anchoring members for pivotal movement about a common horizontal axis between erect and collapsed positions, each side member having a slot therein which, when the side member is in the erect position, registers with the slot of a respective anchoring member, a pair of arm-rests pivotally connected to the side members, a rigid link pivotally connected to each arm-rest and extending downwardly therefrom, and a locking pin carried by each rigid link, which locking pins are movable along the slots in the side members by movement of the arm-rests and are adapted to engage in the open-ended slots of the anchoring members to lock the side members in the erect position, a back rest extending between the side members, a seat portion pivotally mounted between the side members for movement between a seating position and a tilted position, the stop means defining said seating position of the seat portion, and stop means carried by the anchoring members and adapted to engage the side members to define said erect position of the side members.

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U.S. Cl. X.R.

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