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C. C. ANDRESS

1,743,802

THEATER OR LIKE CHAIR

Filed May 5, 1928

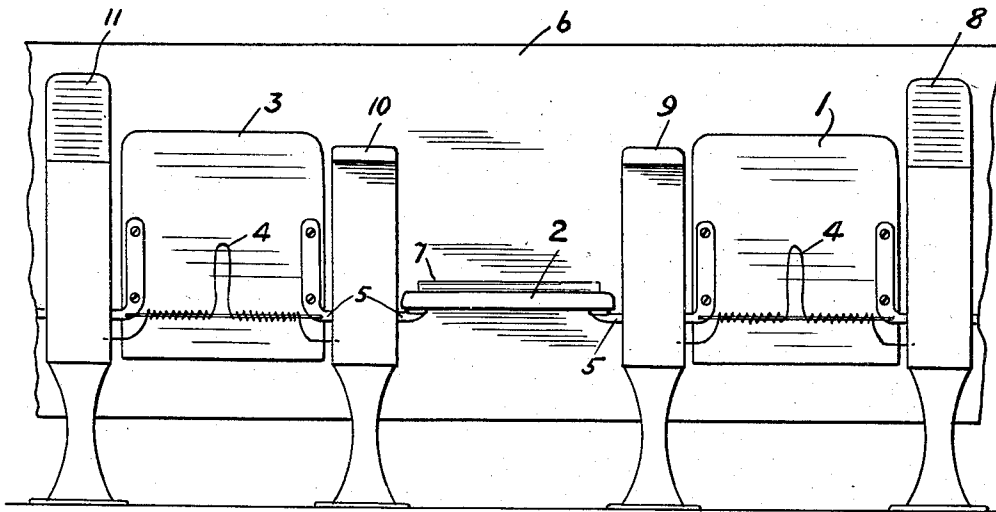


FIG. 1.

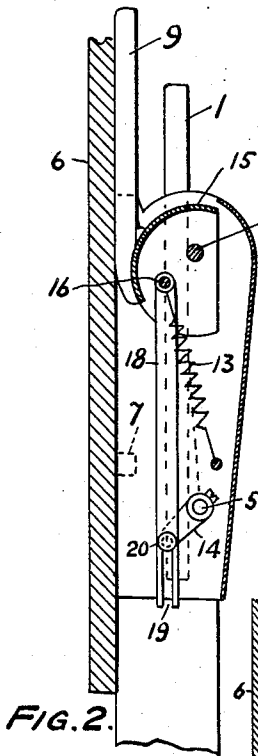


FIG. 2.

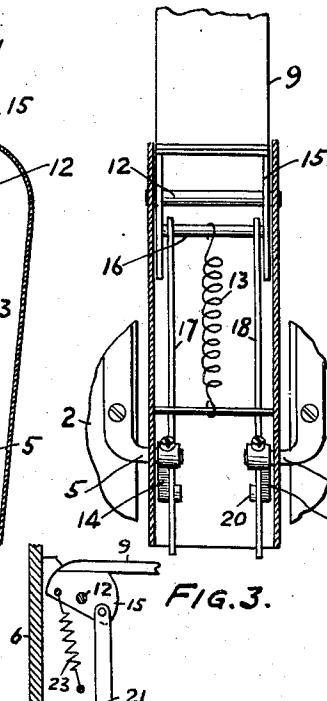


FIG. 3.

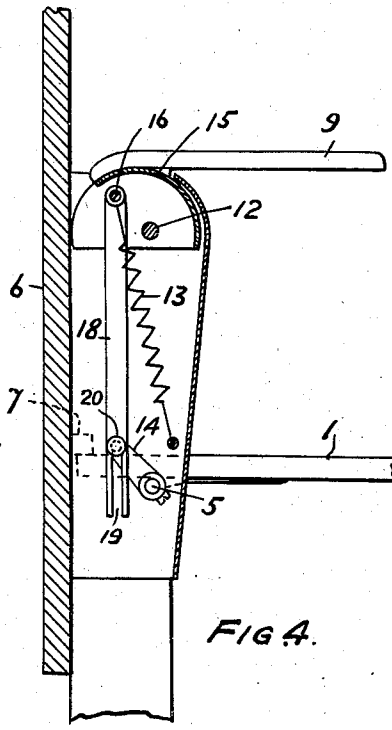


FIG. 4.

WITNESS:

Robt. R. Mitchell.

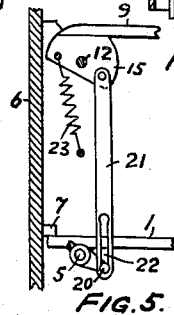


FIG. 5.

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THEATER OR LIKE CHAIR

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The principal object of the present invention is to provide chairs for arrangement in rows and having spring retracted seats and arms each common to two adjacent seats any one of which in down position is automatically provided with two arms regardless of the position of the adjacent seats. Another object of the invention is to accomplish the above mentioned result in such a way that normally and in the absence of occupants all of the seats and all of the arms are in retracted position affording full aisle space. Another object of the invention is to accomplish the results above referred to by means of simple, reliable and comparatively inexpensive mechanism.

To these and other ends hereinafter stated, the invention comprises chairs for arrangement in a row each having a pivotal normally retracted seat, pivotal normally retracted arms common to adjacent seats, and transmission mechanism effective in one direction only and interposed between each arm and its adjacent seats. The invention also comprises the improvements to be presently described and finally claimed.

In the following description reference will be made to the accompanying drawing forming part hereof and in which

Figure 1 is a front view of three chairs embodying features of the invention.

Fig. 2 is a sectional view drawn to an enlarged scale and illustrating features of the invention.

Fig. 3 is a front view partly in section of the mechanism shown in Fig. 2.

Fig. 4 is a view similar to Fig. 2 showing the parts in another position, and

Fig. 5 is a view drawn to a reduced scale and illustrating a modification.

In the drawing 1, 2 and 3 indicate normally retracted seats of which there is one for each chair. As shown these seats are normally retracted by springs 4 and are pivoted at 5 to a suitable frame or support. The backs of the chairs are indicated at 6 and at 7 are indicated stops for the seats when turned down ready for occupancy. 8, 9, 10 and 11 indicate normally retracted arms of which each is common to two adjacent seats.

The arms are shown as pivotally supported at 12. The spring 13 is a means for normally retracting the arms. There is a crank mechanism on each arm and a crank mechanism on each seat. The crank mechanism for the seat comprises an arm 14 fast on the pintle or pivot pin of the seat. The crank mechanism for the arm, as shown, comprises a cap 15 pivoted at 12 and to which the arm is secured. The bar 16 extends crosswise of the cap and is disposed at a distance from the pivot 12 so that it becomes in effect a crank. Incidentally it may be remarked that one end of the spring is attached to this bar 16 and the other end is attached to the housing. There is a link mechanism common to the crank mechanism on each arm and independently connected with the crank mechanism on adjacent seats for actuation thereby in one direction only. As shown there are two links 17 and 18 and they are each pivoted to the bar 16 at one end. At the other end each of these links is slotted as at 19. The slot in the link 18 receives slidably a head 20 on the crank arm 14 of the seat 1 and in a similar manner the slot in the link 17 receives a head on the crank arm 14 of the seat 2.

Evidently when a seat is turned down, for example, seat 2, Fig. 1, both of the crank arms 14 operating through the heads 20 push the rods upward, thus turning down an arm on each side of the seat 2, and so long as the seat 2 is held in down position the arms 9 and 10 remain in down position, and this is true whether the seats 1 and 3 be up or down. If these seats 1 and 3, or either of them, be up, their crank arms 14, or more accurately the heads 20 thereof, change their position in the slots of the links which are connected with the arms 9 and 10. If the seat 2 be turned up then the arms 9 and 10 are held down for the use of the occupants of seats 1 and 3 by the links appertaining to those seats and to the arms 9 and 10. With the seats 1 and 3 up, if the occupant of the seat 2 vacates it, it is turned up by its spring turning its crank arms 14 into the position shown in Fig. 2 and permitting the arms 9 and 10 to be retracted or turned up by their springs.

The construction and mode of operation of the modification illustrated in Fig. 5 are as above described except that the links 21 are connected at the front of the pivots 5 and 12 so that it is the lower end of the slot 22 which operates to pull the links 21 down and so turn down the arms against the tension of the springs 23 which are connected on the inside of the pivots 12.

Having described my invention in one of its aspects I may say that the chairs embodying it are useful singly for any purpose where folding chairs are useful, for example, in schools and offices and in such case two arms and one seat are employed and only the links and crank means that are connected with that one seat and with those two arms are employed, so that both the seat and arms fold upwards providing a very compact construction.

It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement and matters of mere form without departing from the spirit of the invention which is not limited to such matters or otherwise than the prior art and the appended claims may require.

I claim:

1. In chairs for arrangement in a row a pivotal normally retracted seat for each chair, pivotal normally retracted arms common to adjacent seats, link mechanism, pivotal crank pin connection between the arm and link mechanism, and slot and pin connection between each seat and the link mechanism so arranged that the pin on each seat serves to guide the link mechanism through the slot therein.

2. A row of chairs comprising a pivotally mounted seat for each chair spring pressed to vertical position, a pivotally mounted arm between each pair of seats pressed to vertical position by an individual spring, a crank pin on each seat, a crank pin on each arm, and links connecting the pins on the arms and on the seats and each having a slot therein engaged and guided by the pins on the seats.

3. In a chair, a fixed back structure, a seat pivotally hinged thereon and adapted to normally assume raised position, a pair of arms adjacent said seat and pivotally mounted on said back structure and adapted to normally assume raised position, a link pivotally mounted on each of said arms and having a slot in the opposite ends thereof, and crank arms mounted on said seat and engaged in the slots in the links to serve as guides for the links.

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