AUTOMATIC SEAT FOLDING DEVICE

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Fig. 1

Fig. 2

Fig. 3

Fig. 4

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My invention relates to automatic seat folding devices and has as one of the principal objects thereof the provision of such a device for folding or raising pivotal seats of chairs and the like from a horizontal to a substantially vertical position when weight or pressure is removed from the seat.

Another object of my invention is to provide a device of the character described which is simple in construction, durable in use, efficient in operation and economical in manufacture.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a side elevation of my invention as applied to a theatre seat of the folding seat type.

Figure 2 is a front elevation thereof.

Figure 3 is a detail sectional view, on an enlarged scale, taken on the line 3—3 of Figure 1.

Figure 4 is a perspective view of my invention.

Theater chairs, of ordinary construction, are provided with spaced standards between which are pivoted seats adapted to be raised or folded when not in use to provide additional space between the various rows of chairs whereby the patrons may move about with a minimum amount of difficulty and to facilitate the sweeping and cleaning of the adjacent floor area.

My invention comprehends an attachment or device for association with a chair 5 having a folding seat 6 whereby to automatically fold or raise the seat when not in use. Said seats are pivotally supported between standards 7 by brackets 8 carried on the under faces of the seats and connected to the standards by pivot pins 9.

My device comprises a bracket 10 fashioned with an elongated bar 11 secured to a standard 7 by means of bolts 12 and subjacent a seat bracket 8. Intermediate the ends thereof, the bar 11 is formed with an upwardly extending arm 13, the end portion of which is fashioned with an upwardly extending section 14 terminating in a right angularly disposed and inwardly extending check member 15.

Mounted about the arm 13, between the bar 11 and section 14 are the convolutions of a coil spring 16, one end of which is secured to said bar by means of a bolt and nut 17 as clearly illustrated in the drawing. The opposite end of the coil spring 16 is formed with an upwardly extending arm 18 which underlies the member 15 and is attached to the under face of the seat 6 by means of a screw or bolt 19 extending through the loop 20 formed on the end of said arm.

In use, the tension of the spring 16 is such as to normally maintain the seat 7 in a raised or folded position when uncoupled, as illustrated in dotted lines in Figure 1. The member 15 engages with the arm 10 to limit the degree of expansion of the spring and thereby maintain the seat in a desired raised or folded position. When weight is applied to the seat 6, the latter is disposed downwardly in a substantially horizontal plane for use as illustrated in full lines in Figure 1. Upon weight being removed from the seat, the spring serves to actuate the seat upwardly into said raised or folded position.

It is also obvious that the invention is not confined to the herein described use therefor as it may be utilized for any purpose to which it is adaptable. It is therefore to be distinctly understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrative of the principle of operation which are capable of extended application in advance forms, and that the invention comprehends all construction within the scope of the appended claims.

What is claimed is:

1. An automatic seat folding device, comprising, a bracket adapted to be attached to a chair standard having pivoted thereto a seat, said bracket fashioned with an arm terminating in a check member, and a spring attached to said arm and having a section for attachment to said seat and underlying and engaging said member whereby to maintain said seat in a desired folded position.

2. An automatic seat folding device, comprising, a bracket formed with a bar adapted to be attached to a chair standard having pivoted thereto a seat, said bracket fashioned with a spring integraly connected to said bar and extending outwardly therefrom and formed with a right angularly disposed section terminating in a check member, and a spring attached to said bar and having a section for attachment to said seat and underlying and engaging said member whereby to maintain said seat in a desired folded position.

3. In an automatic seat folding device, a member adapted to be attached to a chair standard having a foldable seat connected thereto, resilient means attached to said member and adapted for engagement with said seat whereby to urge the latter towards folded position, and a check connected to said member for engaging said means to inhibit the action thereof during actuation of the seat whereby towards said folded position whereby to position and maintain said seat in a desired folded position.

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