Aug. 10, 1937. A. L. CHAMPION 2,089,184

PEW OR CHAIR

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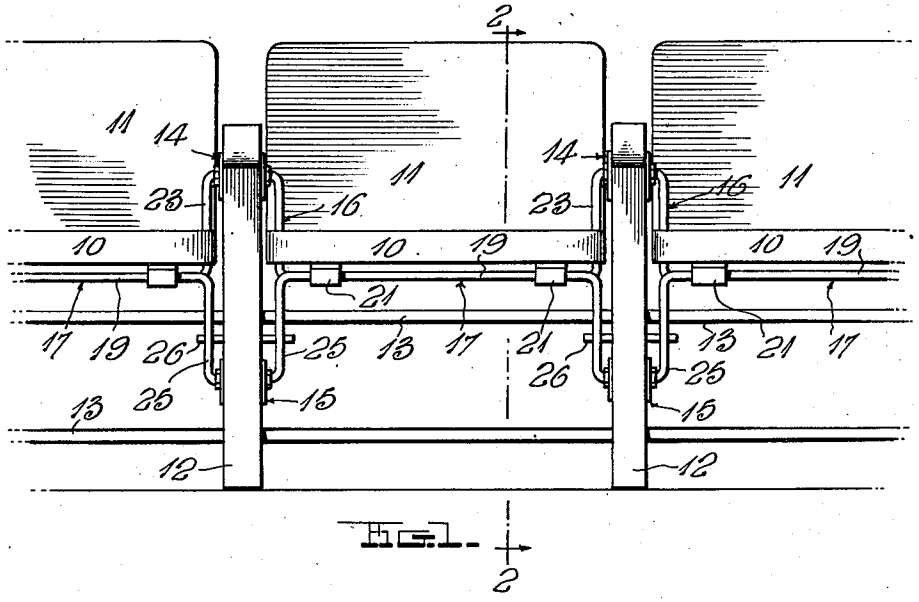


FIG. 1

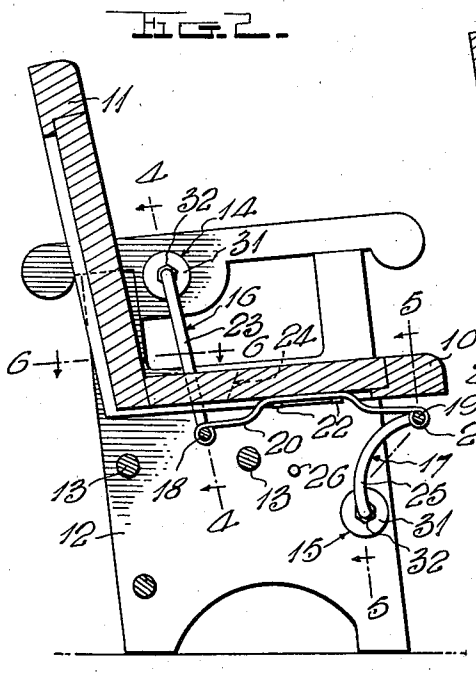


FIG. 2

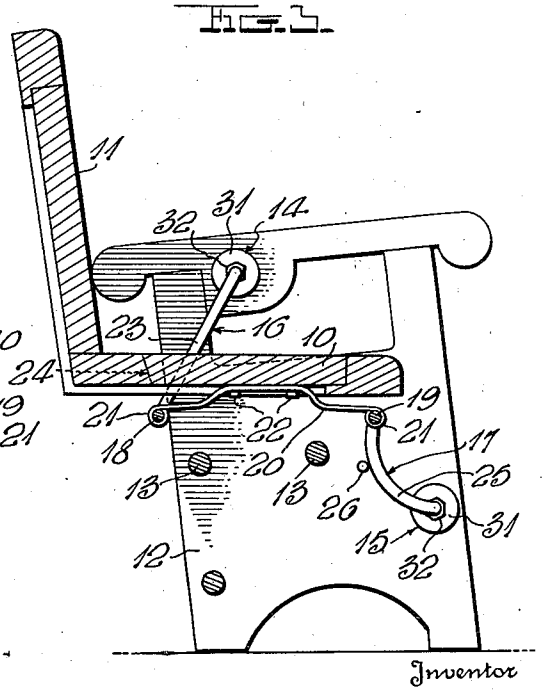


FIG. 3

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FIG. 4.

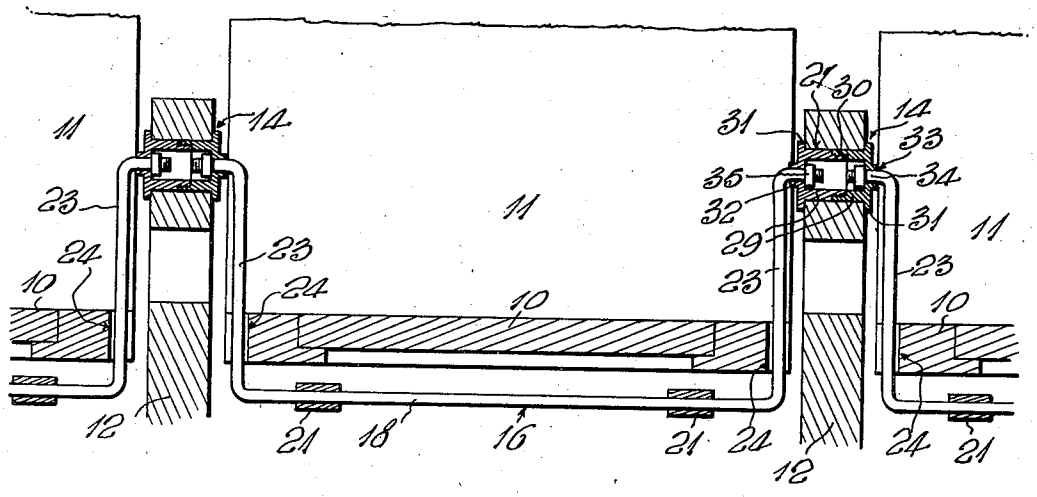


FIG. 5.

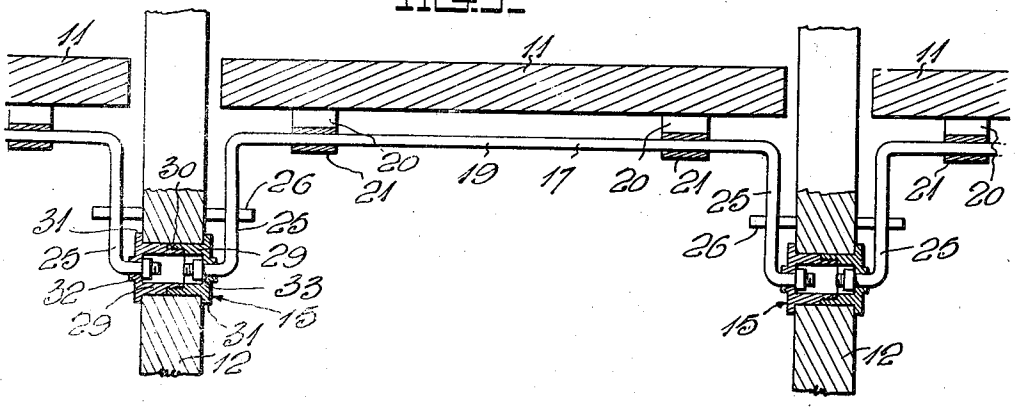


FIG. 6.

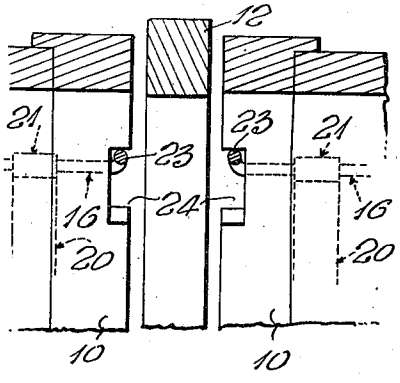
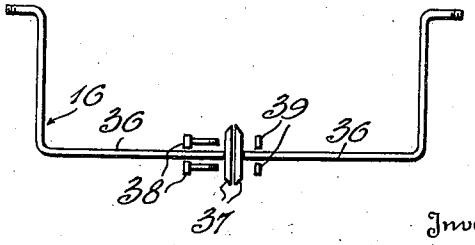


FIG. 7.



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UNITED STATES PATENT OFFICE

2,089,184

PEW OR CHAIR

Abraham L. Champion, Boston, Mass.

Application April 22, 1936, Serial No. 75,843

2 Claims. (Cl. 155—115)

The invention relates to pews, chairs or the like for use in churches, theaters, auditoriums, etc., and it aims to provide a new and advantageous structure whereby the occupant of any seat may easily push the same rearwardly to make room for someone to pass, without the necessity of rising, providing also a seat which will allow the occupant to readily change his position for ease.

With the foregoing and minor objects in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being readily understood by reference to the accompanying drawings.

Fig. 1 is a front elevation showing one complete chair and portions of two others adjacent thereto.

Fig. 2 is a vertical transverse sectional view on line 2—2 of Fig. 1 showing the normal position of the seat.

Fig. 3 is a view similar to Fig. 2 but showing the seat shifted to its rearmost position.

Figs. 4 and 5 are vertical sectional views on lines 4—4 and 5—5 of Fig. 2.

Fig. 6 is a detail horizontal sectional view on line 6—6 of Fig. 2.

Fig. 7 is a side elevation showing a sectional construction which may be employed for the U-shaped hanger supporting the rear portion of the seat and/or the arched support for the front of said seat.

While the invention may, if desired, be embodied only in a single chair structure, it is preferably so constructed that the chairs of a row are connected with each other, as customary in theaters, auditoriums and the like. Moreover, each chair seat while preferably being of a width for one occupant only, might well be sufficiently wide to support a number of occupants.

The seat 10 and its back 11 are disposed between two vertical side frames 12 which may be rigidly connected with each other by suitable tie rods or the like 13, and said side frames are preferably secured to the floor in the usual or any preferred way.

The upper rear portion of each of the side frames 12 is provided with a bearing 14 and the lower front portion of each of said frames is provided with a bearing 15. A U-shaped hanger 16 for the rear portion of the seat 10, is pivotally connected at its ends with the bearings 14, and an arched support 17 for the front portion of said seat, is pivotally connected at its ends with the bearings 15. The intermediate or arm-connecting portion 18 of the hanger 16, and the intermediate or arm-connecting portion 19 of the arched support 17, are both horizontally disposed under the seat 10, and while this seat may be mounted on said portions 18 and 19 in any suitable way, I prefer to provide steel springs 20 extending between said portions 18 and 19 and having eyes 21 receiving the same, the intermediate portions of said springs being secured to the seat 10 by screws or the like 22. The seat is thus yieldably supported in a novel manner, for the comfort of the occupant.

The arms 23 of the hanger 16 extend through notches 24 in the edges of the seat 10 and may well abut the rear walls of these notches to limit the forward movement of said seat to the normal position shown in Fig. 2. The arms 25 of the front support 17 are preferably curved as shown and stops 26 are shown on the side frames 12 to be struck by these arms to limit the rearward movement of the seat to the position shown in Fig. 3. If desired, the arms 23 may abut the front walls of the notches 24 when the seat is in its rearward position.

With the parts in normal position (Fig. 2), the arched support 17 is forward of dead center and the arms 23 of the hanger 16 are substantially vertical though slightly inclined. The weight of the occupant thus readily holds the seat in this normal position but when it is desired to make room for someone to pass, the occupant simply slides his feet rearwardly to some extent and pushes rearwardly upon the seat, the arched front support 17 then swinging behind dead center and the hanger 16 being in a rearwardly swung position. With the seat 10 in this rearwardly shifted position, the front links 25 incline rearwardly well beyond a dead-center position and the rear links 23 incline rearwardly well beyond a dead-center position, as seen in Fig. 3. Thus, if most of the occupant's weight be placed upon the front portion of the seat, said seat will remain in its extreme rearward position, without any effort on the part of the occupant, but if most of the weight be supported by the rear portion of the seat, it will return to its forward position. The occupant may thus comfortably occupy the seat either in its forward or rearward position, or even in an intermediate position should this be desired, and this enables him to change his position from time to time, for ease.

Each bearing 14 or 15 is preferably in the form of a cylindrical metal drum secured in an opening 27 in the side frame 12, said drum being composed of two cup-like sections 29 which may

be threaded together at 30 if the side frame 12 be of wood, or may be threaded into said side frame if the latter be constructed from metal. The sections 29 are provided with flanges 31 lying against opposite sides of the frame 12 holding the bearing drum against endwise movement and acting also as finishing plates. These plates are preferably provided with hexagonal bosses 32 for engagement with a wrench when assembling the sections in the opening 27 and each of these sections is formed with a central opening 33 through which the laterally bent ends 34 of the hangers 16 or front supports 17 of adjacent seats, pass, said laterally bent ends 34 being provided with nuts 35 or other enlargements housed within the bearing drum to prevent withdrawal of said ends 34 from the openings 33.

If desired, the hanger 16 and/or front support 17 may be composed of two sections 36 (Fig. 7) having flanges 37 which may be secured together by bolts 38 and nuts 39, for the purpose of facilitating assembly.

It will be seen from the foregoing that a novel and advantageous construction has been provided for carrying out the objects of the invention. While excellent results may be attained from the details disclosed and they may be followed if desired, it is to be understood that the invention is subject to variations.

I claim:

1. A theater or similar chair comprising two vertical side frames, a seat between said side frames having a back, two rear links pivotally hung from said side frames and pivoted at their lower ends to the seat, two front links pivoted at their upper ends to the seat and pivoted at their lower ends to said side frames, means for limiting the forward movement of said seat to a position at which said front links incline forwardly well beyond a dead center position, and means for limiting the rearward movement of said seat to a position at which said front links incline rearwardly well beyond a dead center position, whereby the occupant's weight may act downwardly on said front links to alone hold the seat in either its extreme forward position or its extreme rearward position, said seat being at all times free to move from one of said positions to the other at the will of the occupant.

2. A theater or similar chair comprising two vertical side frames, a seat between said side frames having a back, two rear links pivotally hung from said side frames and pivoted to the seat, two front links pivoted at their upper ends to the seat and pivoted at their lower ends to said side frames, means for limiting the forward movement of said seat to a normal position at which said front links incline forwardly well beyond a dead center position, whereby the occupant's weight will hold the seat in said normal forward position, said seat being entirely free to be pushed rearwardly to allow a person to pass in front of the occupant, means for limiting the rearward movement of the seat to a position at which said front links incline rearwardly well beyond a dead center position and said rear links incline rearwardly well beyond a dead center position, the relative inclinations of the front and rear links when the seat is in its extreme rearward position being such that the occupant's weight if applied principally on the front part of the seat will cause said seat to remain in said extreme rearward position, and if applied principally to the rear part of the seat will cause said seat to forwardly return to normal position.

ABRAHAM L. CHAMPION.