April 29, 1930. J. F. HOLLIDAY 1,756,687

REMOVABLE FOLDING SEAT

Filed April 30, 1929

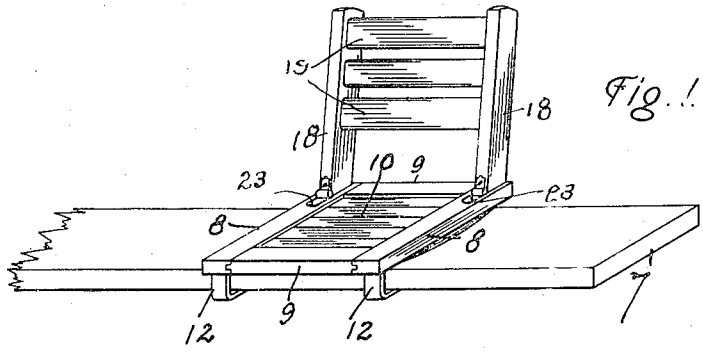


Fig. 1.

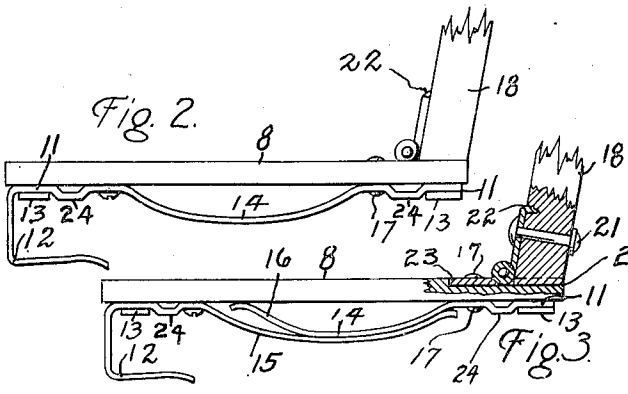


Fig. 2.

Fig. 3.

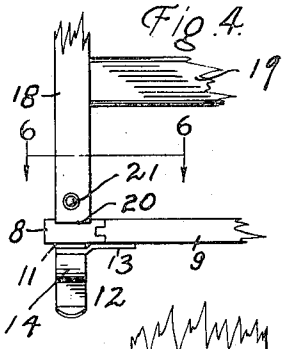


Fig. 4.

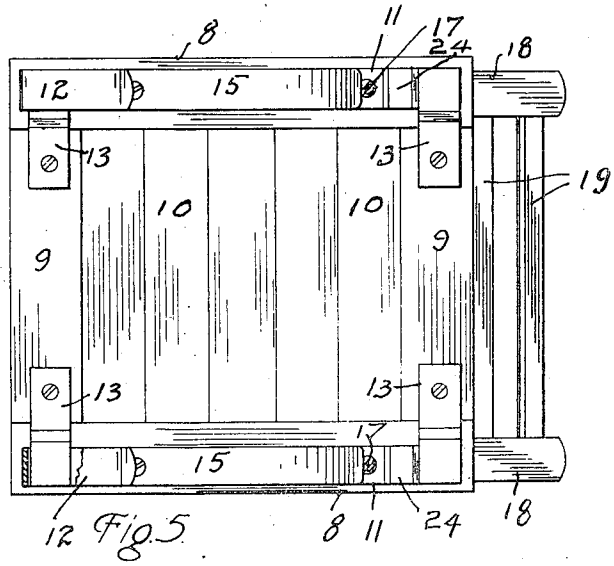


Fig. 5.

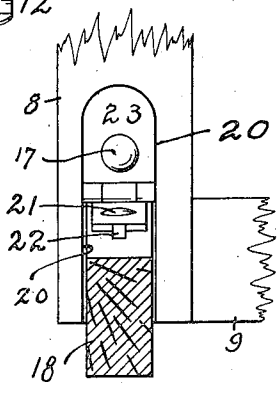


Fig. 6.

INVENTOR,
John F. Holliday,
By Whittemore & Whittemore,
Attorneys.

Patented Apr. 29, 1930

1,756,687

UNITED STATES PATENT OFFICE

JOHN F. HOLLIDAY, OF WASHINGTON, INDIANA, ASSIGNOR TO HINCHER MANUFACTURING COMPANY, OF WASHINGTON, INDIANA, A CORPORATION OF INDIANA

REMOVABLE FOLDING SEAT

Application filed April 30, 1929. Serial No. 359,233.

The object of this invention is to provide a removable seat with a back-rest to be used on boat seats and on bleacher board seats at ball games, circuses and the like, which can be easily and quickly placed for use or removed for transportation or storage, and in which the seat is foldable for greater compactness.

Another object is to provide a well braced and durable device which will be cheap to manufacture

I accomplish the above, and other objects which will hereinafter appear, by the means illustrated in the accompanying drawing, in which—

Fig. 1, is a perspective view of a bleacher board with my invention operatively applied.

Fig. 2, is a side elevation of my invention removed from the bleacher board and with the back raised.

Fig. 3, is a like view, showing the hinge between the seat and back and adjacent parts in vertical section and also showing a modified form of seat clamping spring.

Fig. 4, is a fragment in rear elevation, showing a seat and back and a seat clamp on one side of the seat.

Fig. 5, is an under side plan view of the seat shown in Fig. 3, with the back of the seat swung out to the position of use, and;

Fig. 6, is a section on the line 6—6 of Fig. 4, on a larger scale, and showing a fragment of the top of the seat.

Like characters of reference indicate like parts in the several views of the drawing.

The plain seat board 7, may be a bleacher board, boat seat, or other uncomfortable seat without a back-rest, such as are in common use, and upon which my invention is supported and to which it is removably attached.

The seat portion of my device is composed of a frame having a pair of side members 8, 8, which are connected at their front and back ends by cross members 9, 9. The two side members are longitudinally grooved on their inner edges and receive therein the ends of slats 10 which fill the space between the four frame members, and also the reduced or tongued ends of the cross members 9, 9, which may be tacked or glued therein, or both tacked and glued.

Extending longitudinally against the underside of each of the side members 8, 8, is a spring metal strap 11, the front end of which is bent downwardly and rearwardly to form a hook 12, which engages the front edge of the board 7 with a resilient and close-sliding fit.

Near the front end of the strap 11 and at its rear end are lateral extensions or ears 13, 13, which cross the joints between the frame members 8, 8, and 9, respectively and are fastened by screws to the members 9. These ears may be variously formed integrally but for economy of material I prefer to make them out of strap metal having ends lapped over and spot welded to the strap 11

For a major portion of the length of strap 11, at its middle, it is bowed away from the seat frame as shown at 14, to secure a resiliency which will be more comfortable to the person occupying the seat and which will normally tilt the rear of the seat up and which causes the clamp hook 12 to more closely engage the seat board.

In the modification shown in Figs. 3 and 5, the strap 11 is in two parts, 15 and 16, at the middle bow, in order the more fully to develop the spring action above referred to.

The strap 11 is secured to the frame member 8 by a screw at the front end of the bow 14 (or 15 and 16) and by a rivet 17 near the rear end.

A back comprising a pair of standards 18, 18, and cross members 19, 19, is hinged at the front and lower ends of the standards, to the upper sides of the frame members 8, within shallow grooves 20, 20, formed in the frame members, by means of leaf hinges. The leaf of each hinge contacting a standard is secured by a rivet 21 which passes also through the standard to keep the end of the latter from splitting, and the outer end of the leaf terminates with a barb 22 which is driven into the standard to keep the leaf from rotating on the rivet. The other leaf 23 of each standard is of a width to make a close fit in its groove 20, where it is secured by the rivet 17, which passes through the frame member of the seat and also through the strap 11, thereby serving the double purpose of securing the hinge and the strap. The outer

end of leaf 23 makes a close fit in the correspondingly shaped end of the groove 20, to prevent play. This end may be half formed as shown or any desired shape.

The ends of the hooks 12 are curved outwardly to make them easier of application to the seat and the straps 11 are preferably bent down at 24 to make contacting faces level with the lateral extensions 13.

From the foregoing description it will be obvious that a useful and comfortable folding seat has been produced capable of wide and general use and adapted to be collapsed in a compact structure occupying but little space.

It will, of course, be understood that various changes may be made in the form, details, proportions and arrangements of parts without departing from the spirit and scope of my invention.

What I claim, is—

1. The combination with a chair-seat and a chair-back hinged thereto, of securing means comprising resilient metal straps secured to the seat having front ends bent to form hooks and other portions bowed downwardly to cushion the seat and increase the holding tension on the hooks.

2. The combination with a chair-seat and a chair-back hinged thereto, of securing means comprising resilient metal straps secured to the under side of the seat having front ends bent to form hooks and other portions overlapped and bowed downwardly to cushion the seat and increase the holding tension on the hooks.

3. The combination with a chair-seat, comprising frame members joined at their intersections, of securing means consisting of resilient metal straps secured to the frame and having lateral extensions overlapping the corner joints of the frame and having the front ends of the straps bent to form hooks and other portions bowed downwardly to cushion the seat and increase the holding tension of the hooks.

4. The combination with a chair-seat having channels in its top surface and a chair-back having standards entering the channels, leaf hinges securing the back to the seat having leaves entering the channels and held from lateral movement by the sides of the channels, of securing means comprising resilient metal straps bowed downwardly and secured to the under side of the seat, and securing means comprising rivets which also secure the hinges to the seat, said straps having front-end hooks.

5. The combination with a chair-seat comprising frame members joined at their intersections, of securing means consisting of resilient metal straps secured to the frame and having lateral extensions overlapping the corner joints of the frame, said frame having channels in its top surface, a chair-back having standards entering the channels, leaf-hinges securing the back of the seat having leaves entering the channels and held from lateral movement by the sides of the channels, means securing the straps to the frame comprising rivets which also secure the hinges to the seat, said straps having front-end hooks and bowed portions to cushion the seat and increase the holding tension on the hooks.

6. The combination with a chair-seat comprising frame members joined at their intersections, of securing means consisting of resilient metal straps secured to the frame and having lateral extensions overlapping the corner joints of the frame, said frame having channels in its top surface, a chair-back having standards entering the channels, leaf-hinges, securing the back of the seat having leaves entering the channels and held from lateral movement by the sides of the channels, means securing the straps to the frame comprising rivets which also secure the hinges to the seat, said straps having front-end hooks and bowed portions to cushion the seat and increase the holding tension on the hooks, said rivets being passed through the rear ends of the straps, the frame, and the hinge leaves and having heads spun over onto the strap and leaves to compressively engage the frame therebetween.

In testimony whereof I affix my signature.

JOHN F. HOLLIDAY.