May 3, 1955 A. B. LAKE 2,707,513

SPECTATOR'S SEAT WITH BACK REST

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Fig. 5

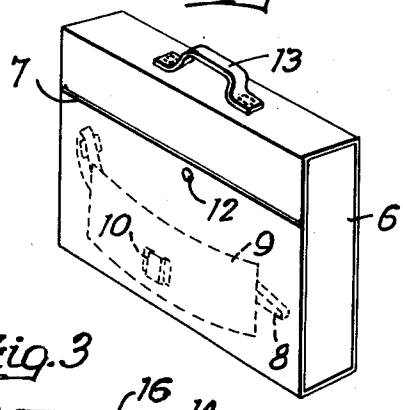



Fig. 1

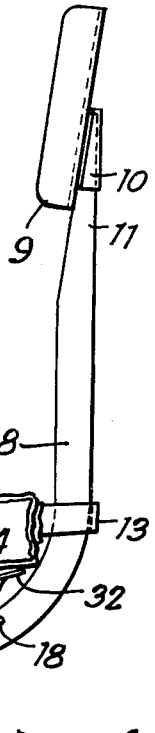



Fig. 3

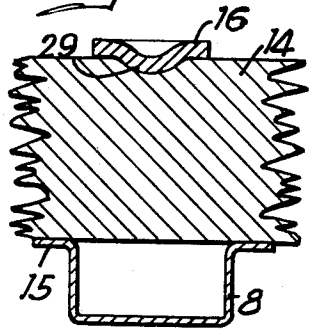



Fig. 2

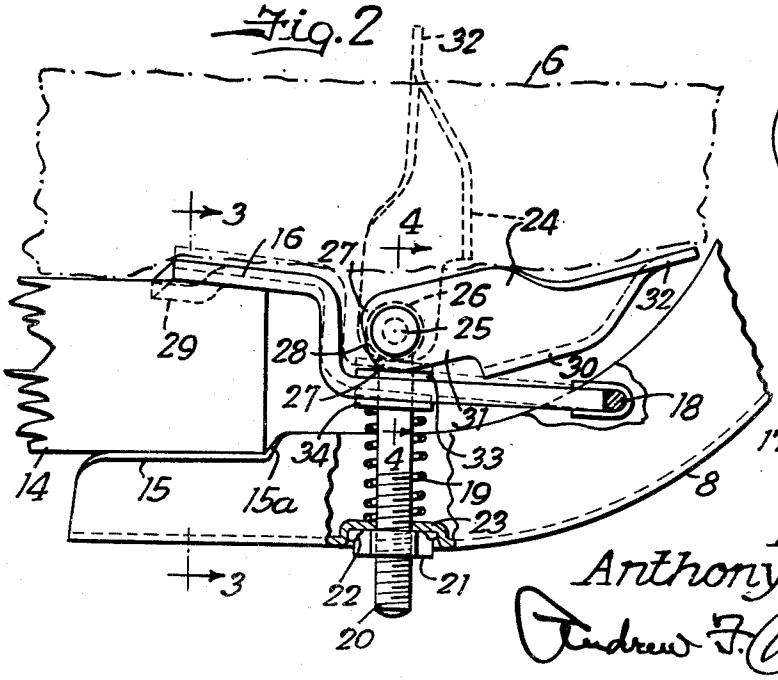
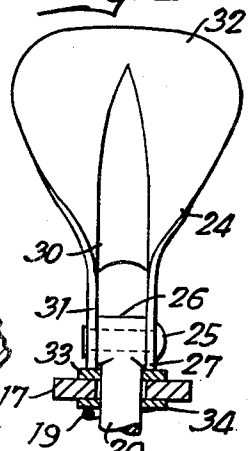



Fig. 4




Inventor

Anthony B. Lake

Andrew F. Winterson

Atty.

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# SPECTATOR'S SEAT WITH BACK REST

Anthony B. Lake, Marion, Iowa

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8 Claims. (Cl. 155—133)

This invention relates to a new and improved spectator's seat with back rest, which, while especially designed for use on plank seats at basketball, football, and baseball games, and other events, is also adapted for use on boat seats when fishing and pleasure riding.

The principal object of my invention is to provide a back rest assembly, designed for quick and easy application to and removal from the rear edge portion of the plank, the construction being such that an appreciable range of thicknesses can be easily accommodated by screw threaded adjustment of a bolt by hand. A special feature of the clamp forming a part of the detachable back rest is the screwing down of the bolt by means of a cam lever that is pivotally connected to the upper end of the bolt over the hinged clamping jaw, this lever being designed to permit screwing the bolt down to the point where the hinged jaw commences to take hold on the edge portion of the plank, whereupon the cam lever is adapted to be swung downwardly under thumb or hand pressure forcibly to tighten the clamping jaw and at the same time place the lever in substantially horizontal out-of-the-way position, so that a cushion may be laid over it and will help to insure holding the cam lever in the locked position more or less under the weight of the person seated on the cushion.

Another feature of the invention is the provision of a seat cushion designed to be carried like a brief case and equipped with a pocket on one side, into which the cross-piece and arm forming the back rest are adapted to be placed for convenient carrying, the pocket preferably having a snap fastener for safe keeping of the parts mentioned during transportation.

The invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a side view of a spectator's seat with back rest made in accordance with my invention, showing the cushion in place ready for occupancy;

Fig. 2 is an enlarged full size view of the clamp which forms an important part of the back rest;

Fig. 3 is a cross-section on the line 3—3 of Fig. 2;

Fig. 4 is a sectional detail on the line 4—4 of Fig. 2, showing the cam lever in a vertical position and in front elevation, and

Fig. 5 is a perspective view of the seat cushion, indicating in dotted lines in the pocket on one side thereof how the arm and cross-piece forming the back rest are adapted to be carried therein.

The same reference numerals are applied to corresponding parts throughout the views.

Referring to the drawing, the perspective view, Fig. 5, shows the seat cushion 6, on the back of which is a pocket 7, in which may be carried the stamped sheet metal, generally L-shaped, arm 8, and the stamped sheet metal back rest 9 that has a stamped sheet metal socket portion 10 on the back thereof designed to fit wedgingly on the tapered standard 11 provided on the upper end of the arm. A suitable snap fastener 12 is provided to close the pocket 7, and a handle 13 is provided on one edge portion of



the cushion for convenience in carrying. Then, when the seat is to be used, the parts 8 and 9 are removed from the pocket 7 and assembled together, as shown in Fig. 1, after part 8 has been clamped to the plank 14, whereupon the seat cushion 6 is placed on the plank 14 covering the clamping end of arm 8 to provide a comfortable seat.

Arm 8, being of channel-shaped sheet metal construction, has the requisite lightness and strength. Flanges 15 are bent outwardly from the opposite side walls of the channel to provide broad bearing surfaces to engage the bottom of the plank 14. This flanged lower end portion of the arm 8 defines shoulders 15*a*, which help to square up the arm properly with respect to the plank, the flanged portion 15 constituting the stationary clamping jaw of a U-shaped clamp for cooperation with the bottom rear edge portion of the plank, the other jaw 16 of which is movable and arranged for engagement with the top rear edge portion of the plank. The jaw 16 has a downwardly offset rear portion 17 pivoted on a cross-pin 18 mounted in holes in the side walls of arm 8. A coiled compression spring 19 disposed between the web of the channel and bottom of the offset portion 17 of the jaw 16 urges the jaw upwardly, and this spring surrounds a bolt 20, which is threaded in a nut 21 welded, as indicated at 22, in a pocket formed by an upwardly embossed portion 23 of the web of the channel of arm 8. A cam lever 24 pivoted on a cross-pin 25 carried in the T-head 26 provided on the upper end of the bolt 20 is adapted to be used both as a handle for convenience in securing the bolt 20 down to bring the pivoted jaw 16 into abutment with the top of the plank and partially tighten the same, as indicated in dotted lines in Fig. 2, and thereafter force the jaw 16 into much tighter clamping engagement with the plank by the cam action of either of the rounded corner portion 27 on the pivoted end of the lever, these corner portions being on a larger radius measured from the pivotal axis of pin 25 than the flat lower end 28 of the lever, so that when the lever 24 is swung through approximately ninety degrees from the dotted line position to the full line position shown in Fig. 2, the cam action mentioned is obtained. An embossed tooth-like portion 29 on the outer end of the pivoted jaw 16 is adapted to dig into the wood of the plank 14 when the jaw 16 is forced down by this cam action, whereby to eliminate any likelihood of the arm 8 working loose and slipping off the rear edge portion of the plank. There is enough springing of the jaw 16 between its pivoted end 18 and the toothed end 29 in the cam action described, and also enough frictional resistance by reason of the cam action at 27 to swinging of the lever 24, to insure the lever 24 staying in its moved position. The lever 24 is of channel-shaped cross-section through its middle portion 30, and has parallel extensions 31 from the side walls of the channel, which, as shown in Fig. 4, straddle the T-head 26 of the bolt 20 for pivotal connection, besides providing the cam portions 27. The other end of the channel is flattened to provide a wide flat thumb- or handle-piece 32 in a plane passing through the axis of the pin 25, which facilitates threading of the bolt 20 in the tightening or loosening of the jaw 16, and also facilitates forcing the lever down to the locked position, shown in full lines in Figs. 1 and 2, because one may use a thumb or the heel of the hand on the wide portion 32 to exert the pressure necessary, without experiencing any discomfort in the operation. The broad flat surface afforded on the portion 32 also provides a good place to rest the rear end portion of the seat cushion 6, and, of course, when the seat cushion is in place, resting on top of the lever 24, the lever is held in place more or less under the weight of the person seated on the cushion. Due to the fact that there are the two cam portions 27, the lever 24 may be turned

with the hollow side up or down when forced down to the locked position. It is apparent in Figs. 1 and 2 that the space between the bolt **20** and the upright portion of arm **8** is enough to accommodate the lever **24**, also that the extent of offsetting of the rear end portion **17** is enough to provide adequate space for the lever **24** below the plane of the top of jaw **16**, so that the rear end portion of the cushion may be laid over the lever in its lowered position. Washers **33** and **34** are preferably provided on the bolt **20** above and below the pivoted jaw **16**, these washers sliding freely on the bolt, and the jaw **16** having an even freer fit on the bolt, so as to avoid any tendency to bind in certain positions of adjustment.

In operation, when the user goes to an athletic event or goes fishing, he or she carries the cushion **6** by its handle **13**, like a brief case. It takes very little time, upon arrival at the designated seat, to remove the arm **8** and back rest **9** from the pocket **7** and fasten the arm securely to the rear edge portion of the plank or other seat, whereupon the back rest **9** is then applied to the upper end of the arm **8**, but preferably not before the handle **13** and cushion **6** have been slipped down over the upright portion of the arm, in the manner shown in Fig. 1, whereby to insure holding the cushion **6** in place and preventing its slipping sidewise or forwardly and possibly falling off the seat.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. The appended claims have been drawn to cover all legitimate modifications and adaptations.

I claim:

1. In a back rest for a seat, a generally L-shaped arm having an upright back rest portion and a substantially horizontal lower end portion, a clamp on said lower end portion for straddling engagement with an edge portion of a seat, said clamp being substantially U-shaped and comprising a fixed lower jaw member provided on an integral portion of the substantially horizontal lower end portion of said arm arranged for engagement with the bottom of the rear edge portion of a seat in forwardly spaced relation to the upright portion of said arm, and a movable, elongated, substantially horizontal, upper jaw member having the opposite end portions thereof in vertically offset relationship, the upper portion at one end being arranged for clamping engagement on top of the rear edge portion of the seat, the lower portion at the other end being pivoted to the arm at the lower end of the upright portion thereof, and a bolt extending downwardly freely through an opening provided in the outer end of the latter portion of said jaw and threaded in a nut fixed on the lower end portion of the arm therebeneath and adapted for drawing said movable jaw down tightly upon said seat, said bolt having an enlarged operating means on its upper end which is adapted to be accommodated within the vertical dimension from the top of the lower portion of the upper jaw member to the top of the upper portion thereof.

2. In a back rest for a seat, a generally L-shaped arm having an upright back rest portion and a substantially horizontal lower end portion, a clamp on said lower end portion for straddling engagement with an edge portion of a seat, said clamp being substantially U-shaped and comprising a fixed lower jaw member provided on an integral portion of the substantially horizontal lower end portion of said arm arranged for engagement with the bottom of the rear edge portion of a seat in forwardly spaced relation to the upright portion of said arm, and a movable, elongated, substantially horizontal, upper jaw member having the opposite end portions thereof in vertically offset relationship, the upper portion at one end being arranged for clamping engagement on top of the rear edge portion of the seat, the lower portion at the other end being pivoted to the arm at the lower end of the upright portion thereof, a bolt and nut interconnecting said jaws behind the rear edge portion of the seat and adapted for drawing said movable jaw down tightly upon said seat, the nut being fixed on the lower end portion of the arm and the bolt extending downwardly freely through an opening in the lower portion of said upper jaw member, and an elongated lever pivoted on a horizontal axis to the upper end of said bolt to tighten the upper jaw by turning said lever, said lever having a cam portion on its pivoted end, which, when the lever is swung to a position in transverse relationship to the bolt, forces the upper jaw down by cam action independently of any threading action, said lever when disposed in clamping position having the top thereof in substantially horizontal coplanar relation with the top of the upper portion of said upper jaw member.



3. In a back rest for a seat, a generally L-shaped arm having an upright back rest portion and a substantially horizontal lower end portion, a clamp on said lower end portion for straddling engagement with an edge portion of a seat, said clamp being substantially U-shaped and comprising a fixed lower jaw member provided on an integral portion of the substantially horizontal lower end portion of said arm arranged for engagement with the bottom of the rear edge portion of a seat in forwardly spaced relation to the upright portion of said arm, and a movable, elongated, substantially horizontal, upper jaw member having the opposite end portions thereof in vertically offset relationship, the upper portion at one end being arranged for clamping engagement on top of the rear edge portion of the seat, the lower portion at the other end being pivoted to the arm at the lower end of the upright portion thereof, a bolt extending downwardly freely through an opening provided in the outer end of the latter portion of said jaw and threaded in a nut fixed on the lower end portion of the arm therebeneath and adapted for drawing said movable jaw down tightly upon said seat, and an elongated lever pivoted at one end on a horizontal axis to the upper end of said bolt and acting as the head of the bolt to bear down upon the upper jaw when the bolt is tightened by turning said lever, said lever having a cam portion on its pivoted end, which, when the lever is swung to transverse relationship to the bolt, forces the upper jaw down independently of rotation of the bolt, the lever being of a length to lie in the space between the bolt and the upright portion of the arm, and being of a dimension measured transversely to lie between the top of the higher front portion and the top of the lower rear portion of the upper jaw, so that it constitutes no obstruction to a seat cushion.

4. A detachable back rest for a seat, comprising a generally L-shaped standard of channel-shaped cross-section providing an upright back rest portion and a substantially horizontal lower end portion, said horizontal lower end portion having the channel thereof arranged to underlie the rear edge portion of a seat, and having the upper edge portions of the walls of the channel bent outwardly to provide wider bearing surfaces for engagement with the seat and at the same time define shoulders at the inner ends of the bearing surfaces for locating engagement with the edge of the seat, a substantially horizontal elongated clamping member whose one end portion is arranged to overlie the rear edge portion of the seat and whose other end portion is disposed between the side walls of the channel of said standard and is pivotally connected thereto, and a bolt and nut interconnecting the web portion of the channel of the substantially horizontal lower end portion of the standard and the clamping member intermediate the ends thereof and arranged to draw the clamping member down tightly upon the seat.

5. A detachable back rest as set forth in claim 4, wherein the clamping member has a downward projection on the outer end portion thereof adapted to be impressed in the wood of the seat when the clamping member is tightened in clamping engagement with the seat, to prevent slippage off the rear edge portion of the seat.

6. A detachable back rest for a seat, comprising a generally L-shaped standard of channel-shaped cross-section providing an upright back rest portion and a substantially horizontal lower end portion, said horizontal lower end portion having the channel thereof arranged to underlie the rear edge portion of a seat, and having the upper edge portions of the walls of the channel bent outwardly to provide wider bearing surfaces for engagement with the seat and at the same time define shoulders at the inner ends of the bearing surfaces for locating engagement with the edge of the seat, a substantially horizontal elongated clamping member whose one end portion is arranged to overlie the rear edge portion of the seat and whose other end portion is disposed between the side walls of the channel of said standard and is pivotally connected thereto, a nut fixed to the web portion of the channel of the substantially lower end portion of said standard, a bolt extending downwardly through an opening provided in said clamping member intermediate the ends thereof and threaded in said nut, and an elongated lever pivoted at one end on a substantially horizontal axis to the upper end of said bolt and bearing against the top of the clamping member to force the same downwardly into clamping engagement with the seat when the bolt is tightened by turning said lever, said lever having a cam portion on its pivoted end, which, when the lever is swung to transverse relationship to the bolt forces the clamping member downwardly with a cam action.

7. A detachable back rest for a seat, comprising a generally L-shaped standard of channel-shaped cross-section providing an upright back rest portion and a substantially horizotnal lower end portion, said horizontal lower end portion having the channel thereof arranged to underlie the rear edge portion of a seat and having the upper edge portions of the walls of the channel bent outwardly to provide wider bearing surfaces for engagement with the seat and at the same time define shoulders at the inner ends of the bearing surfaces for locating engagement with the edge of the seat, a substantially horizontal elongated clamping member having the opposite end portions thereof in vertically offset relationship to one another, the upper portion at one end being arranged for clamping engagement on top of the rear edge portion of the seat, the lower portion at the other end being disposed between the walls of the channel of said standard and pivoted thereto, a nut fixed to the web portion of the channel of the substantially horizontal lower end portion of said standard, a bolt threaded in said nut extending through an opening provided in the lower portion of said clamping member in spaced relationship to the pivot, and an elongated lever pivoted at one end on a horizontal axis to the upper end of said bolt and arranged to bear against the top of the lower portion of said clamping member to force the clamping member into tight engagement with the seat when the bolt is tightened by turning said lever, said lever having a cam portion on its pivoted end, which, when the lever is swung downwardly into transverse relationship to the bolt, forces the clamping member downwardly into tighter clamping engagement with the seat.



8. A detachable back rest for a seat, comprising a generally L-shaped standard of channel-shaped cross-section providing an upright back rest portion and a substantially horizontal lower end portion, said horizontal lower end portion having the channel thereof arranged to underlie the rear edge portion of a seat, a substantially horizontal elongated clamping member having the opposite end portions thereof in vertically offset relationship to one another, the upper portion at one end being arranged for clamping engagement on top of the rear edge portion of the seat, the lower portion at the other end being disposed between the walls of the channel of said standard and pivoted thereto, a nut fixed to the web portion of the channel of the substantially horizontal lower end portion of said standard, a bolt threaded in said nut extending through an opening provided in the lower portion of said clamping member in spaced relationship to the pivot, and an elongated lever pivoted at one end on a horizontal axis to the upper end of said bolt and arranged to bear against the top of the lower portion of said clamping member to force the clamping member into tight engagement with the seat when the bolt is tightened by turning said lever, said lever having a cam portion on its pivoted end, which, when the lever is swung downwardly into transverse relationship to the bolt, forces the clamping member downwardly into tighter clamping engagement with the seat.

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