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[54] **PORTABLE FOLDING SEAT**

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[52] **U.S. Cl.** **297/4;** 297/26

[51] **Int. Cl.** **A47c 3/32**

[58] **Field of Search** 297/4, 16, 26, 17, 45; 248/164; 108/118

[56] **References Cited**

UNITED STATES PATENTS

332,749	12/1885	Prall et al.	297/4
774,873	11/1904	Fuchs	297/4
807,394	12/1905	McKeever	297/26
1,267,953	5/1918	Zolp	297/4
1,417,680	5/1922	Nesland	108/118
3,062,580	11/1962	Jasmin	297/4
3,122,397	2/1964	Mintz	248/164 X
3,182,614	5/1965	McLean	108/118

FOREIGN PATENTS OR APPLICATIONS

775,198	5/1957	United Kingdom	297/4

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Attorney, Agent, or Firm—Rose & Edell

[57] **ABSTRACT**

A portable folding seat comprises a pair of inverted U-shaped frames pivotally joined at their legs and which fold for storage into the thickness of a single frame. A canvas strip is secured to the cross-pieces of the frames and is adjustable in length to provide adjustability of the height of the seat when open. Two elastic straps of adjustable length are secured to opposite ends of one of the crosspieces and are adapted to attach to the belt of the user. A non-elastic strap is secured proximate the mid-point of the same cross-piece and is likewise adapted to attach to the user's belt and thereby permit portability during non-use. When the elastic straps are adjusted to the proper length for the user, the seat may be suspended from the rear during non-use and readily deployed by simply pushing downward on the crosspiece of one of the frames.

5 Claims, 4 Drawing Figures

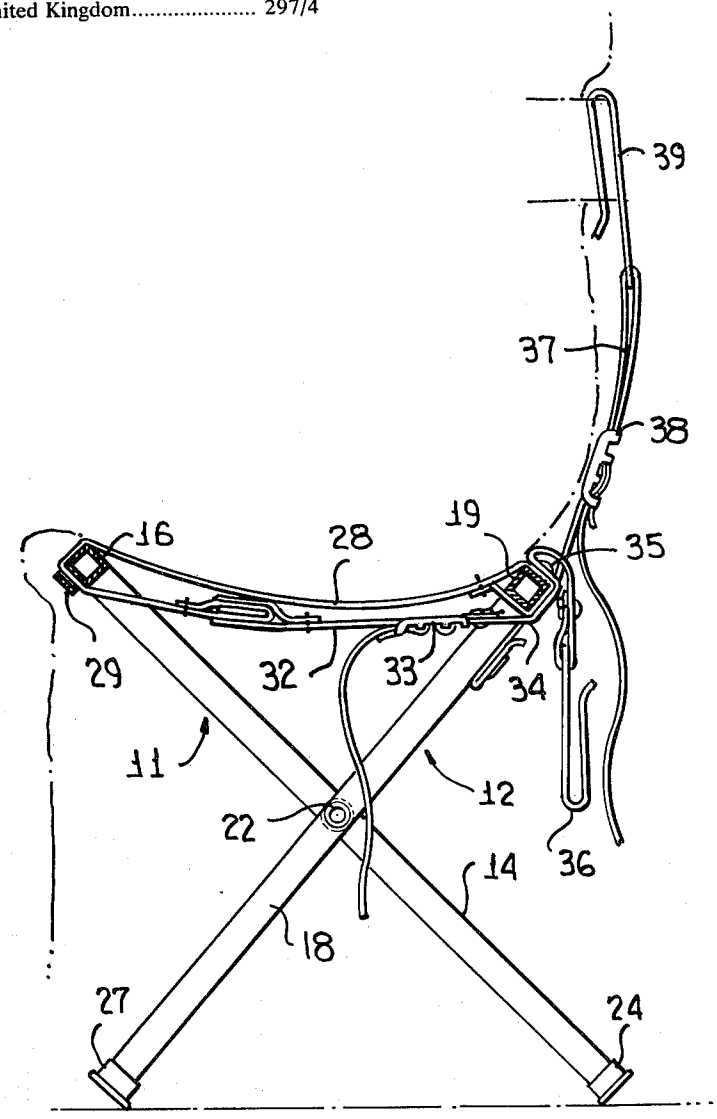


FIG.1

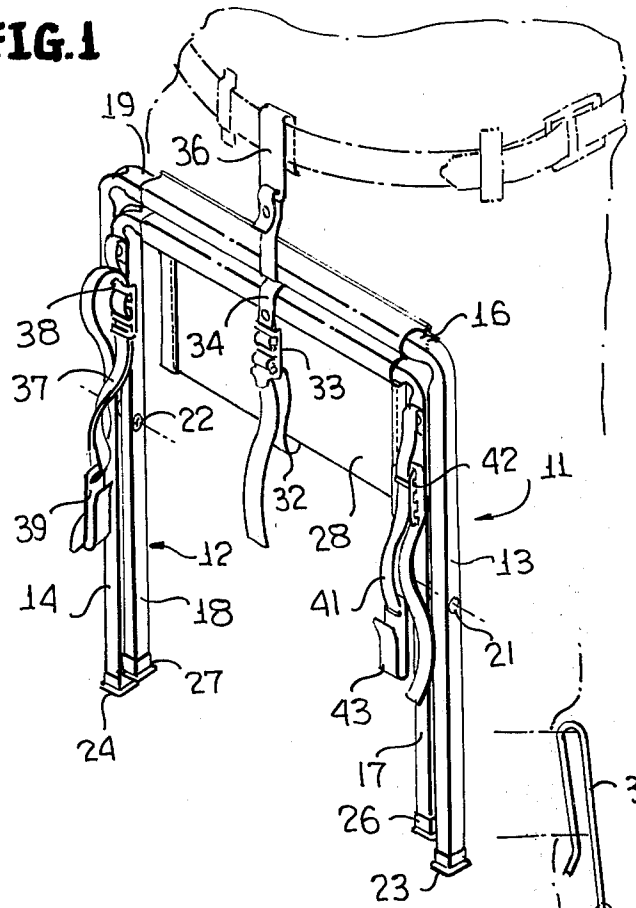


FIG.2

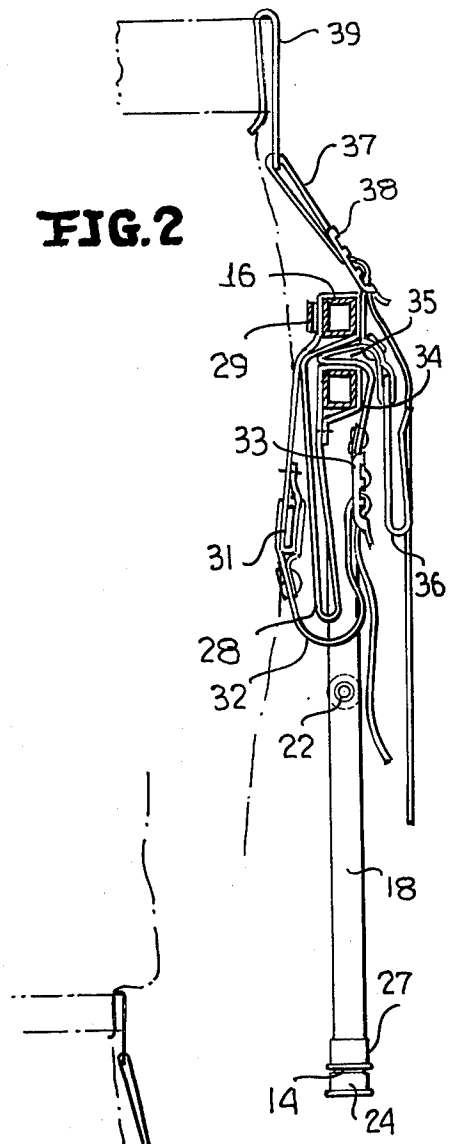
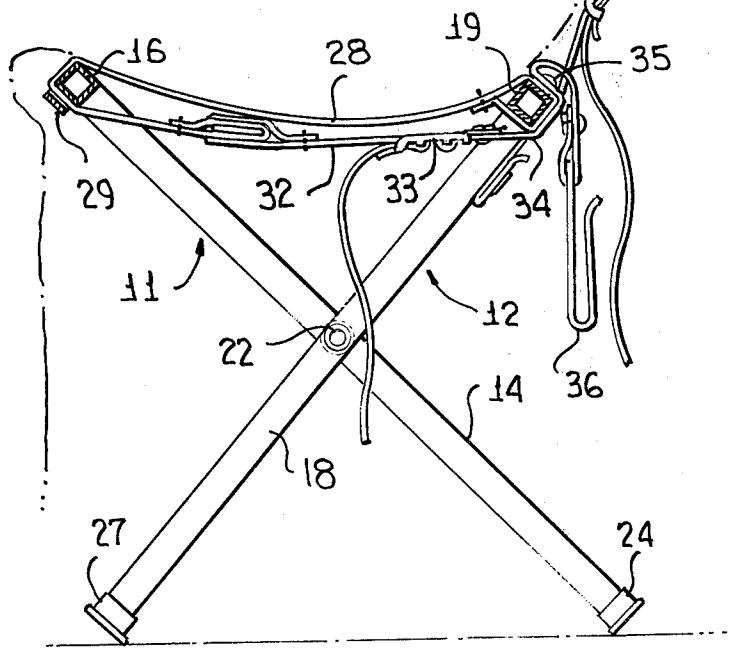


FIG.3



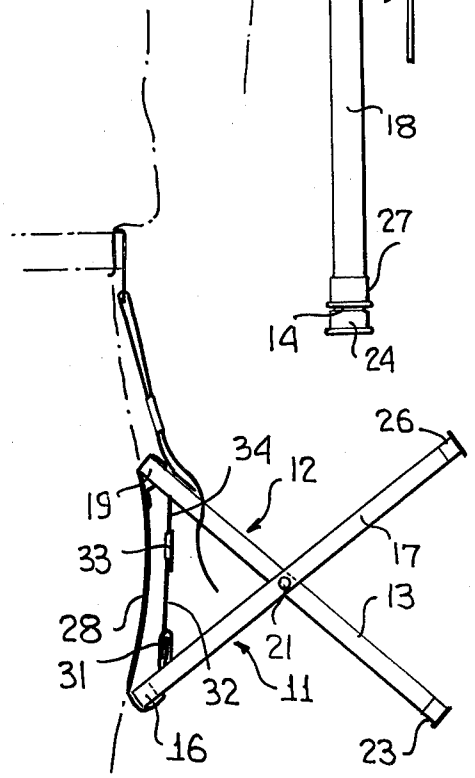


FIG.4

PORTABLE FOLDING SEAT

BACKGROUND OF THE INVENTION

The present invention relates to portable seats and, more particularly, to seats which are readily secured to the apparel of the user during non-use.

The problem toward which the present invention is directed concerns the need for a portable seat which, when not in use, can be carried unobtrusively at public events such as parades, fairs, races, etc. The seat should be lightweight, small when stored, easily carried and adaptable to different size persons.

Numerous approaches to portable seats exist in the prior art, but none have the combination of features described in the preceding paragraph. For example, U.S. Pat. Nos. 1,468,072 and 3,062,580 disclose cushion-type seats which are conveniently attachable to the user's belt. These seats have limited utilization because the user must find some support structure on which to sit, or else sit on the ground. Often the support structure is not present and the ground affords a poor vantage point. Moreover these seats are not adapted to fit different size persons.

In U.S. Pat. No. 3,306,658 there is disclosed a rigid contoured seat which can be suspended from the user's belt and supported by a single leg. This arrangement is extremely cumbersome to carry when supported from the belt due to the configuration of the seat. Moreover, the single support leg requires the user to support himself with both legs while using the seat. A similarly disadvantageous arrangement is disclosed in U.S. Pat. No. 774,873 and takes the form of two pivotally joined legs which can be forced open against the action of a spring. The seat is suspended from a specially provided harness and remains between the user's legs when not in use. Apart from the disadvantage of the special harness, the location of the seat between the user's legs causes considerable discomfort.

In U.S. Pat. No. 332,749 there is disclosed a folding seat which attaches to the wearer's belt and is suspended so that one pair of legs touches the floor when the seat is not in use. The seat is thus dragged along the floor or ground by the user when the seat is in its folded condition, a highly undesirable and annoying feature. Further, the seat is of bulky construction, further adding to the annoyance of carrying it, and has no adjustability for use by different size persons. Moreover, the use of wheels on one pair of legs makes it extremely dangerous for the user to deploy the seat for use directly from the stored position attached to the user's belt.

It is therefore an object of the present invention to provide a portable folding seat which is convenient to carry when not in use, which is readily and safely deployed for use from its stored position, and which is adaptable for use by persons of different size.

It is another object of the present invention to provide a portable seat which can be secured to the user's apparel and carried without annoyance when not in use.

It is another object of the present invention to provide a portable folding seat which is adjustable for use by different size persons.

SUMMARY OF THE INVENTION

According to the present invention a portable folding seat is constructed from a pair of inverted U-shaped frames which are pivotally-joined at their legs. One frame is of shorter length than the other so that the smaller frame can be located entirely within the periphery of the larger frame when the seat is folded closed. The cross-piece of the shorter frame has two elastic straps secured at its ends and a non-elastic strap secured proximate its middle, the straps being adapted to be secured to the rear of the user's belt. The elastic straps are adjustable in length to permit the seat to be suspended to the level at which deployment is facilitated for any size person.

A canvas seat portion is secured to one cross-piece and is folded around the opposite cross-piece. The folded end is secured to a strap which is also attached to the first cross-piece and which is adjustable to permit adjustment of the length of the canvas seat portion extending between the cross-pieces.

The seat is readily deployed for use from its suspended and folded position by simply pushing down on the cross-piece of one of the frame members to thereby open the frame and present the seat portion for occupancy.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and still further objects, features and advantages of the present invention will become apparent upon consideration of the following detailed description of one specific embodiment thereof, especially when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a view in perspective of the portable folding seat of the present invention shown folded closed and attached to the belt of the user at the user's side;

FIG. 2 is a side view in section, of the portable folding seat of the present invention shown folded closed and attached to the belt of the user at the user's rear;

FIG. 3 is a side view in section, of the portable folding seat of the present invention shown open and in use; and

FIG. 4 is a side view of the portable folding seat of the present invention shown open and ready to be used.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings with greater specificity, the seat of the present invention includes a pair of U-shaped frames **11** and **12** made from suitably lightweight and rigid material such as aluminum, fiberglas, or plastic of the necessary strength. Preferably the frame structures are hollow, as best illustrated in FIGS. **2** and **3**, to further minimize the weight. Frame **11**, which is somewhat larger than frame **12**, includes opposed parallel-extending legs **13** and **14** joined at one end of each leg by a cross-piece **16**. Smaller frame **12** includes opposed parallel-extending legs **17** and **18** joined at one end of each leg by cross-piece **19**. A pivot pin or bolt **21** joins legs **13** and **17** in pivotal engagement proximate their mid-points; a similar pin or bolt **22** joins legs **14** and **18** in pivotal engagement proximate their mid-points. The pivotal connection thus provided permits the seat to be folded closed, when not in use, or open, when in use. Non-slip rubber or plastic tips **23, 24, 26,** and **27** are secured to the lower ends of legs **13, 14, 17** and **18,** respectively.

A strip **28** of canvas or similarly strong foldable material extends between cross-pieces **16** and **19** and thereby provides a seating portion when the seat is

open. One end of strip **28** is folded over cross-piece **19** and sewn back upon itself to provide a sleeve within which cross-piece **19** resides. The other end of strip **28** is folded over cross-piece **16** and passes through the narrow space provided between that cross-piece and a flat member **29** secured at its ends along a side of cross-piece **16** which is remote from cross-piece **19.** Member **29** prevents strip **28** from sliding along the length of cross-piece **16.** After passing between cross-piece **16** and member **29,** strip **28** is folded back toward cross-piece **19.** The extreme end of this portion of strip **28,** which resides under the seat portion when the seat is open, is folded over a flat elongated member **31** and sewn back upon itself to provide a sleeve surrounding member **31.** Member **31** serves to effect rigid planar support for this end of strip **28.**

A two-piece strap arrangement includes one piece **32** secured about support member **31,** through canvas strip **28,** and arranged to be engaged by a buckle **33.** The buckle is secured to one end of the second strap piece **34,** which is in turn secured to cross-piece **19** proximate its mid-point through canvas strip **28** by means of a bolt or rivet **35.** The length of the seat portion of strip **28** thus subtended between cross-pieces **16** and **19** is rendered adjustable by tightening or loosening the two-piece strap arrangement comprising strap pieces **32** and **34** and buckle **33.** If the strap arrangement is loosened the seat portion becomes larger, permitting the frames **11** and **12** to open wider and thereby support the seat portion at a lower level. If the two-piece strap arrangement is tightened the frames cannot open as wide and the seat portion is thus supported at a higher level. The overall result, therefore, is a capability of adjusting the height of the seat portion.

The end of strap **34** which is remote from buckle **33** is secured to a clip **36** which is adapted to be removably secured over a belt or the like. As illustrated in FIG. **1,** clip **36** fits over the user's belt and permits the seat to hang suspended at the user's side or rear.

An important feature of the present invention is that frame **12** is sized to fit within the periphery of frame **11** when the seat is closed (see FIGS. **1, 2**). This permits the seat, when not in use, to occupy no more than one frame thickness, thereby minimizing its bulk and rendering it unobtrusive when suspended from the wearer's belt.

An elastic strap **37,** adjustable in length by means of buckle **38,** is secured at one end to frame **12** proximate the junction between leg **18** and cross-piece **19.** The other end of elastic strap **37** has a clip **39** secured thereto, which clip is likewise adapted to be removably secured to a user's belt. A similar elastic strap **41,** adjustable in length by means of buckle **42,** is secured at one end to frame **12** proximate the junction between leg **17** and cross-piece **19.** The other end of elastic strap **41** has a clip **43** secured thereto, which clip is likewise adapted to be removably secured to a user's belt. The ability to adjust the length of elastic straps **37** and **41** permits the user to suspend the seat from the rear of his or her belt at a level which corresponds to that of the user's buttocks. The user then need only reach around his or her back or between his or her legs and push cross-piece **16** downward and away from cross-piece **19,** whereupon the seat will open in a suitable position relative to the user's body.

It should be noted that when the seat is not in use it may be supported from the user's belt by the single centrally located clip **36;** the support location may be at the side or rear of the user. Alternatively, all three clips **36, 39** and **43** may be attached to the rear portion of the user's belt during non-use. In either case, the central clip **36,** secured to inelastic strap **34,** is removed from the user's belt prior to opening the seat in order to facilitate positioning of the seat. If the seat had been carried by clip **36** alone, clips **39** and **43** should be attached to the user's belt before the seat is opened.

A further feature of the present invention resides in the fact that the seat may be supplied with a belt in case the user does not wear belts.

My invention, as described, is extremely flexible in that it permits the seat to be set to different heights and to be suspended, when not in use, at a level which is convenient for opening and deployment. It is fabricated from light weight material and can be folded to occupy one frame thickness so that it may be conveniently carried.

While I have described and illustrated one specific embodiment of my invention, it will be clear that variations of the details of construction which are specifically illustrated and described may be resorted to without departing from the true spirit and scope of the invention as defined in the appended claims.

I claim:

1. A portable folding seat of the type which is adapted to be secured to apparel of a user when not in use, said seat comprising:

first and second inverted U-shaped frames of light weight material, each including first and second legs joined by a cross-piece, said frames being pivotally joined to one another along a common axis through said legs, the legs and cross-piece of said first frame being slightly larger than the legs and cross-piece of said second frame such that in a closed pivotal position of said frames said second frame fits entirely within the periphery and thickness of said first frame;

a strip of foldable material extending between the cross-pieces of said first and second frames to define a seating portion when said frames are in an open position;

adjustable means for adjusting the length of said strip of material extending between said cross-pieces to vary the height of and spacing between said cross-pieces in the open position of said frames, thereby permitting the height of said seating portion to be adjusted at will; and

attachment means for removably supporting said seat behind and from the waist of said user, said attachment means comprising; first means for supporting said seat at a standard position below said user's waist when said seat is being carried in a non-deployed condition; and second means for supporting said seat at an adjustable position below the user's waist with the frames in an open position to facilitate deployment of said seat by users of different heights.

2. The seat according to claim **1** wherein said strip of foldable material forms a sleeve surrounding one of said cross-pieces and is folded over the other cross-piece to extend back toward said one cross-piece beneath said seat portion, and wherein said means for adjusting comprises two-piece strap means of adjustable length extending below said seat portion between the

extremity of the folded end of said strip of folded material and said one cross-piece.

3. The seat according to claim 1 wherein said first means is an inelastic strap secured at one end to one of said cross-pieces and having clip means at its other end for attaching said inelastic strap to a belt-like article worn by said user.

4. The seat according to claim 3 wherein said second means comprises a pair of elastic straps secured to opposite ends of said one cross-piece and being adapted to be secured to said belt-like member, whereby, upon disengagement of said inelastic strap clip means from said belt-like member, said seat may be pulled downward against opposing forces exerted by said elastic straps.

5. The seat according to claim 4 further comprising means for adjusting the length of said pair of elastic straps when unextended.

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