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A47C 9/10, A45F 3/26

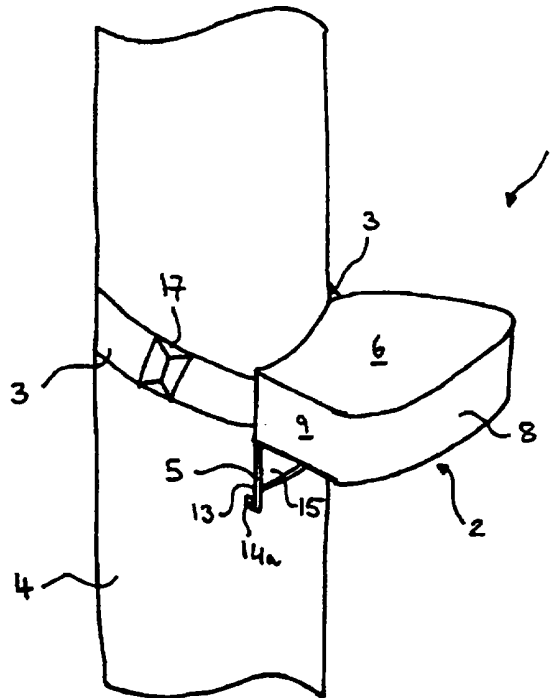
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A4L LAL L113 L114

(56) Documents Cited  
US 4394045 A US 4124094 A US 4113058 A  
US 4113057 A US 3961686 A US 3927733 A  
US 3767011 A US 3115213 A

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UK CL (Edition P) A4L LAL  
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(54) Abstract Title  
**Portable outdoor seat**

(57) A portable seat 1 is mounted to eg a tree 4 by a flexible strap 3 of adjustable length. The seat is concave at its rear and includes a downwardly folding support 5. The seat forms a hollow housing with an underside opening which is closed when the support is folded upwards.



**FIGURE 1**

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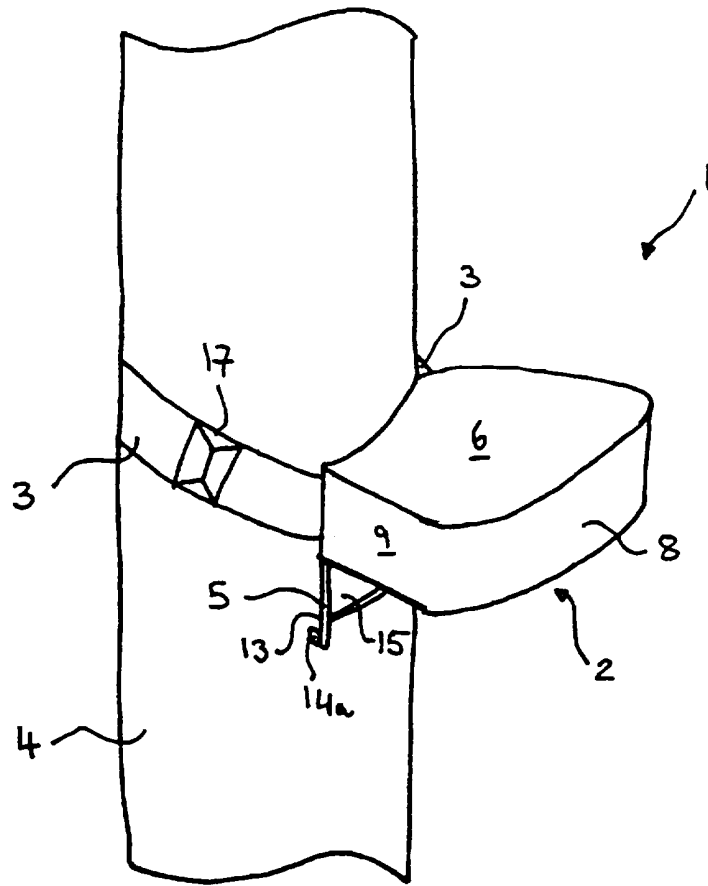


FIGURE 1

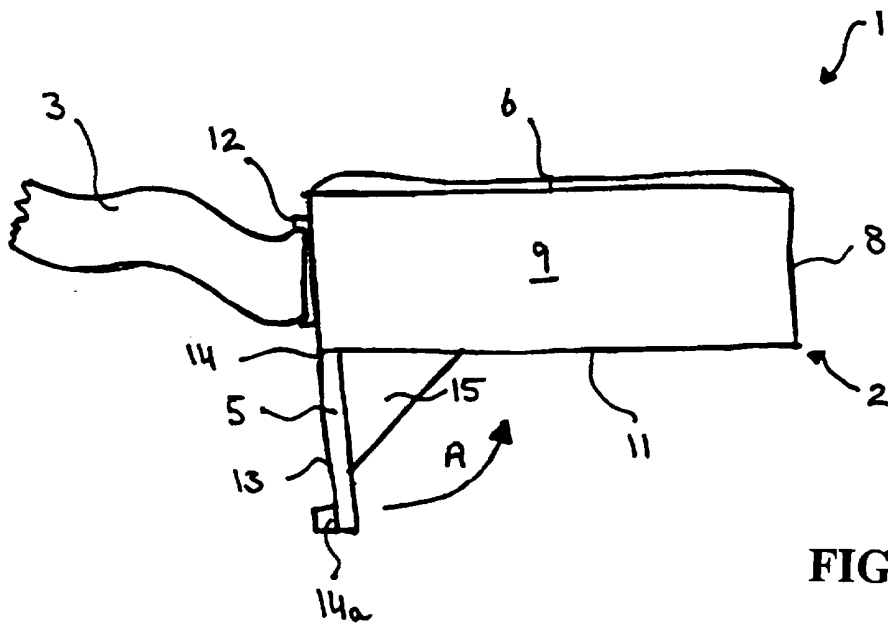


FIGURE 2

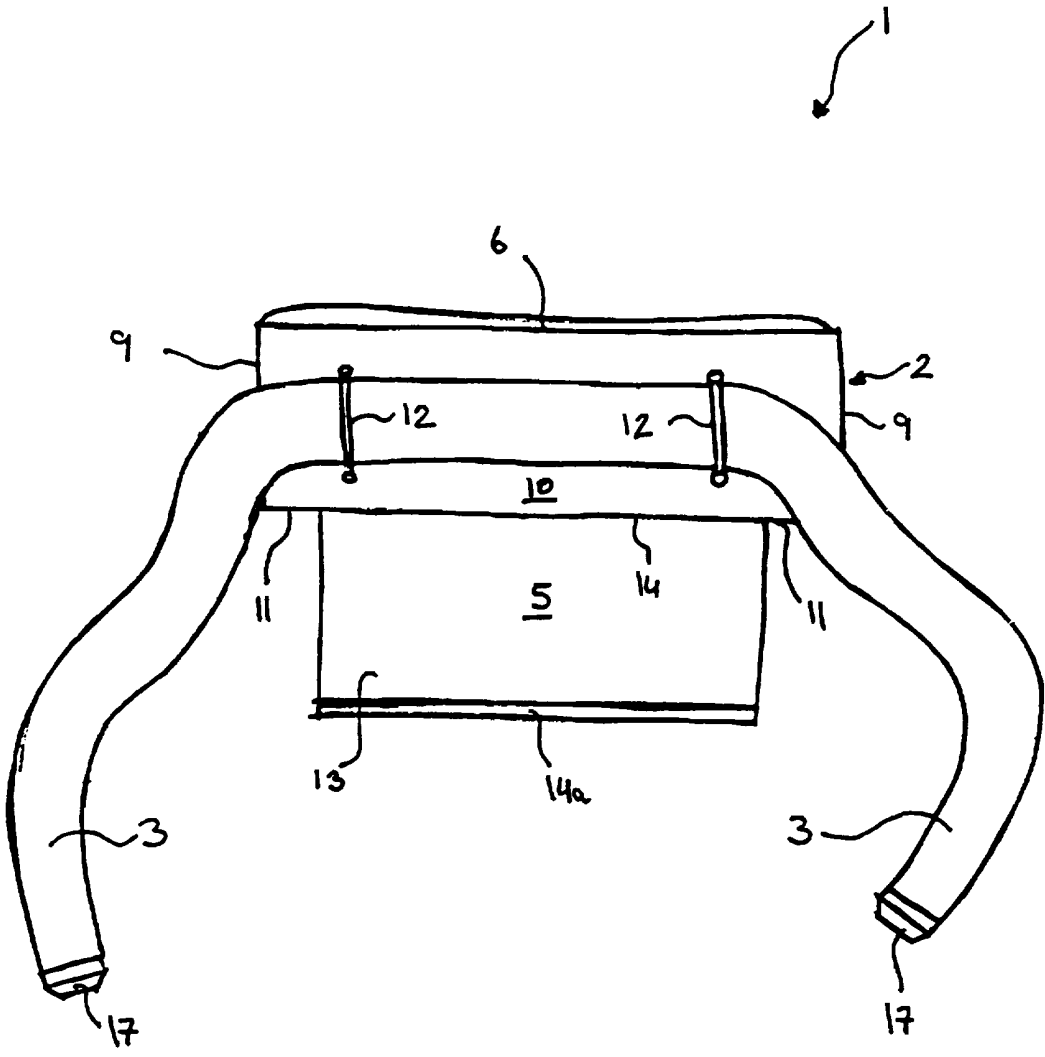


FIGURE 3

## A Portable Seat

### Description

The present invention relates to a portable seat and more particularly to a seat which  
5 can be releasably attached to an upright support member such as a tree or post.

Occasions often arise when a portable seat is required, especially when outdoors. For  
example, a large number of outdoor events such as concerts, sports meetings and  
rallies are held outside and attract large crowds. Usually, most people either remain  
10 standing throughout the event, which can last a considerable length of time, or sit on  
the ground. This can be very uncomfortable if the ground is very hard or wet,  
especially for older people.

To deal with this problem, foldable chairs are widely known and used. However, the  
15 majority of foldable chairs are cumbersome and heavy and in certain circumstances  
their use may not be permitted or be very practical. For example, if the ground is  
very soft or boggy the weight of a person sitting in the chair can cause the legs to sink  
into it resulting in instability which can cause the chair to topple over or collapse.

20 Furthermore, people below average height often find themselves at a disadvantage at  
concerts and other events where people are standing unless they manage to find a  
good vantage point towards the front of the crowd or one which enables them to see  
over the crowd. In extreme cases, this may prevent people from attending an event  
because they know that they will have difficulty seeing the event or performance. To  
25 overcome this problem, they may attempt to sit on the shoulders of somebody else  
or climb a tree to get a better view. This can be dangerous as they may fall causing  
injury to themselves and other people standing nearby.

It is an object of the present invention to overcome or substantially alleviate the  
30 aforementioned problems.

According to the present invention, there is provided a portable seat having flexible attachment means thereon for releasably attaching the seat to an upright member by looping the flexible attachment means around said upright member.

5

Preferably, the seat includes a support face which, in use, contacts the upright member when the flexible attachment means is looped around the upright member and supports the seat at right angles to the upright member.

10 Preferably, the support face, in use, contacts the upright member when the flexible attachment means is looped around the upright member to maintain a load bearing surface on the seat substantially horizontal.

The flexible attachment means is conveniently releasably attached to a side wall  
15 depending from an upper load bearing surface of the seat.

Preferably, a support arm is hingedly connected to the side wall and pivotable between a first operable position and a second stowed position, locking means being provided to lock the support arm in the first and/or second positions.

20

The support arm is preferably positioned parallel to the load bearing surface within the side wall in its stowed position.

The seat preferably includes a base, the load bearing surface, side wall and base  
25 together defining a housing, the support arm forming part of the base when in its stowed position, access to the interior of the housing being obtainable when the support arm is pivoted into its operative position.

The load bearing surface is preferably contoured and, conveniently, the flexible  
30 attachment means is a belt or strap.

Although the present invention is referred to as a 'seat', the term is used in a broad sense as it is envisaged that a person could also use the invention as a support surface to stand on.

5 An embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

FIGURE 1 illustrates a perspective view of a cantilever seat of the invention attached to a tree trunk.

10 FIGURE 2 illustrates a side view of the seat shown in Figure 1, and  
FIGURE 3 illustrates a rear view of the seat shown in Figures 1 and 2.

Referring now to the drawings, a cantilever seat 1 or a support platform includes a body 2 having a flexible belt 3 thereon which can be looped around a tree 4, as shown  
15 in Figure 1. The body 2 has a support member 5 which depends downwardly from its underside and provides a support face which contacts the tree 4 when the flexible belt 3 is looped around it.

The body 2 has a load bearing surface 6 which has a contoured surface to provide a  
20 comfortable seat for a person to sit on. A side wall extends downwardly at right angles from the perimeter edge of the upper surface 6 and includes a convex front wall 8 smoothly blending at both ends into straight side walls 9 which each smoothly blend into a convex rear wall 10 between the two side walls 9. The body 2 also includes a base 11 which is parallel to and spaced from the upper platform 6 and  
25 attached to the side wall. The base 11, the load bearing surface 6 and the side wall together define a hollow housing for the body 2. An opening (not shown) is provided in the base 11 to provide access to the interior of the housing.

As shown in Figure 3, two belt loops 12 are fixed in spaced apart relation to the  
30 convex rear wall 10, and one end of the flexible belt 3 is threaded through both belt loops 12 to removably attach the flexible belt 3 to the body 2.

The support member 5 comprises a flat support arm 13 including a bar 14a on its lower edge, for reasons which will be explained later. The support arm 13 is pivotally attached to the body 2 by a hinge 14 to enable it to be moved between a position of use, when it extends downwardly from the body 2 to form an extension to the convex rear wall 10, as shown in the Figures, and a stowed position (not shown) in which the support arm is folded about the hinge 14 in the direction of arrow A in Figure 2 to close the opening in the base 11, into which it fits.

10 The support member 5 also includes a pair of locking webs 15 which extend downwardly from the body 2 on either side of the support arm 13. The locking webs 15 engage the inner face of the support arm 13 to prevent it from pivoting upwardly about the hinge 14 when in its position of use, as illustrated in the figures. The locking webs 15 are also pivotally attached to the base 11 of the body 2 along the sides of the opening at right angles to the hinge 14 and fold towards each other into the compartment to enable the support arm 13 to be pivoted into its stowed position. A releasable catch (not shown) is also provided to retain the support arm in the stowed position.

20 The flexible belt 3 has a buckle 17 to enable it to be formed into a loop. The buckle 17 is adjustable so that it can be tightened or loosened depending upon the diameter of the tree or post around which the belt is to be looped.

When the seat is to be used, the buckle 17 on the belt 3 is released and the catch retaining the support arm 13 in its stowed position is released so that it pivots into its position of use, as shown in the drawings. The locking webs are also pivoted so that they extend downwardly from the base 11 and lock the support arm in its position of use.

30 The concave rear wall 10 and the support arm 13 are placed against the tree or post at the desired height at which a person wishes to sit and the ends of the belt 3 are looped

around it and attached together using the buckle 17. The length of the belt 3 is now adjusted depending on the diameter of the tree or post but is left as a loose fit around it. The platform 6 is now ready to sit on. It will be appreciated that the belt 3 does not need to be tightened closely around the tree, as it is supported by the support arm  
5 13 and does not slide down it.

When a load is applied to the load bearing surface 6, the seat or support platform is retained in position by two forces acting in opposite directions on the tree or post. One force is provided by the belt 3 which acts against the tree or post and on its own  
10 would tend to cause the seat to slip down the tree. To prevent such slippage, a second force is provided by the support arm 13 which acts against the tree in the opposite direction to the first. The support bar 14a on the lower edge of the support arm 13 provide the main point of contact of the support arm 13 with the tree or post and reinforces the support arm so that a considerable load can be applied to it without  
15 buckling.

It will be appreciated that the compartment can be used for storage purposes, and the belt 3 can be used as a shoulder strap to enable the seat to be carried easily when not in use. Alternatively, the seat can form part of a base of a rucksack from which it can  
20 be easily removed, for example, by a zip fastener. The seat will also conveniently fit within the frame of a bicycle and can be attached to the crossbar when not in use.

The seat can made from any lightweight material which has sufficient rigidity and strength to withstand the weight of a person sitting on it. The flexible strap 3 is  
25 preferably made from a nylon webbing material.

As will be appreciated from the foregoing description of the preferred embodiments, the present invention provides a seat or support platform which is easy to carry, cheap to manufacture and which can be positioned at any height on the post or tree  
30 to which it is attached, thereby providing a user with a comfortable viewing platform.



## Claims

1. A portable seat having flexible attachment means thereon for releasably attaching the seat to an upright member by looping the flexible attachment means  
5 around said upright member.
2. A portable seat according to claim 1, wherein the seat includes a support face which, in use, contacts the upright member when the flexible attachment means is looped around the upright member.  
10
3. A portable seat according to claim 2, wherein the support face, in use, contacts the upright member when the flexible attachment means is looped around the upright member to maintain a load bearing surface on the seat substantially horizontal.
- 15 4. A portable seat according to claim 2 or claim 3, wherein the flexible attachment means is releasably attached to the support face.
5. A portable seat according to claim 3 or claim 4, wherein the support face comprises a portion of a side wall depending from an edge of the load bearing  
20 surface.
6. A portable seat according to claim 5, wherein said portion of the side wall is concave.
- 25 7. A portable seat according to claim 5 or claim 6, wherein the support face includes a support arm extending beyond the side wall of the seat.
8. A portable seat according to claim 7, wherein hinge means between the support arm and the support face enable the support arm to be pivoted between a  
30 first operable position and a second stowed position, locking means being provided to lock the support arm in the first and/or second positions.

9. A portable seat according to claim 7, wherein the support arm is positioned parallel to the load bearing surface within the side wall in its stowed position.
- 5 10. A portable seat according to claim 9, wherein the seat includes a base, the load surface, side wall and base together defining a housing, the support arm forming part of the base when in its stowed position, access to the interior of the housing being obtainable when the support arm is pivoted into its operative position.
- 10 11. A portable seat according to any of claims 3 to 10, wherein the load bearing surface is contoured.
12. A portable seat according to any preceding claim, wherein the flexible attachment means is a belt or strap.
- 15 13. A portable seat according to claim 11, wherein the belt or strap has two free ends and includes releasable coupling means to enable the ends to be joined to form a loop.
- 20 14. A portable seat according to claim 12, wherein the releasable coupling means is adjustable to enable the the belt or strap to be tightened and/or loosened around a support member.
- 25 15. A portable seat substantially as hereinbefore described with reference to the accompanying drawings.



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Claims searched: ALL

Examiner: R E Hardy  
Date of search:

Patents Act 1977  
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): A4L (LAL)

Int Cl (Ed.6): A45F (3/26); A47C (9/10)

Other: -----

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	US4394045 A SHAW : Whole document - see especially the Figures	1-4, 12-14
X	US4124094 A CANDE : Whole document - see especially the Figures	1-6, 11-14
X	US4113058 A KOBOSH : Whole document - see especially the Figures	1-5, 7-9, 12-14
X	US4113057 A BESSINGER : Whole document - see especially the Figures	1-5, 7-9, 12-14
X	US3961686 A STARKEY : Whole document - see especially the Figures	1-4, 12-14
X	US3927733 A WURN : Whole document - see especially the Figures	1-4, 12-14
X	US3767011 A WITT : Whole document - see especially the Figures	1-6, 11-14
X	US3115213 A CLOUTIER : Whole document - see especially the Figures and note col 2 lines 7-11	1-9, 11-14

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
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