

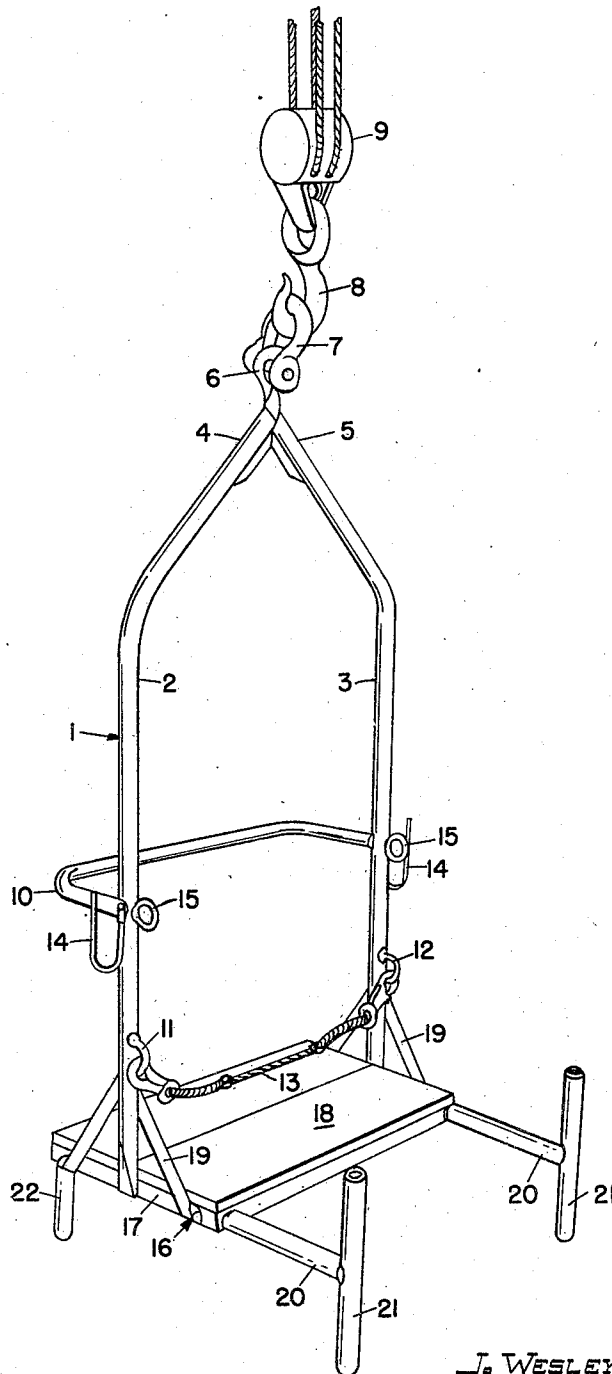
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BOATSWAIN'S CHAIR

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BOATSWAIN'S CHAIR

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The present invention relates to boatswain's chairs.

Objects of the present invention are to provide an improved boatswain's chair affording improved comfort and safety of the worker and permitting greater working efficiency; and to provide for an improved construction and arrangement of elements in a device of the character described and for the purposes set forth.

In accomplishing these and other objects of the present invention, I have provided improved details of structure, the preferred form of which is illustrated in the accompanying drawing, wherein the figure is a view in perspective of a boatswain's chair embodying the features of the present invention and showing how it may be supported on a conventional hook, block, and line arrangement.

Referring more in detail to the drawing:

The frame 1, includes two generally vertically disposed and parallel pipe-shaped members 2 and 3, having their upper ends 4 and 5, brought together and provided with an upwardly extending eye 6. Said eye 6, serves as a convenient connecting means through which the boatswain's chair may be hoisted about by any suitable means such as the shackle 7 and hook 8 mounted on the block 9. It will be noted that the entire boatswain's chair is relatively rigid up to the point of suspension and that the point of suspension is located substantially above and generally in a vertical line with the center of gravity of the system comprising the chair and a worker supported on the chair. This arrangement is considerably more stable than the conventional boatswain's chair which consists substantially of a board suspended in the bight of a rope or cable. In the conventional boatswain's chair the center of gravity of the system is located substantially at the center of gravity of the worker, because of his relatively greater mass, and is thus located above the point of suspension which, in this case, may be considered to be either of the points where the rope leaves the end of the board. Such a system with the center of gravity locate above the point of suspension is quite unstable. My invention may also be differentiated from the common boatswain's chair by realizing that, as distinguished from the bifilar suspension of the ordinary chair, my invention contemplates a boatswain's chair suspension system comprising a flexible suspending element portion, which includes the lines passing through the block 9, the block 9 itself, the hook 8, and the shackle 7, and the boatswain's chair proper which includes the

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rigid frame 1. The boatswain's chair may thus be seen to be supported by a substantially unifilar suspension connected to the frame at a point, as noted hereinbefore, which is located substantially above and generally in a vertical line with the center of gravity of the system comprising the chair and a worker supported on the chair. The word "unifilar" is here used in the sense ordinarily applied in physics and means that the chair, in effect, is supported by a single flexible element, although the element itself may comprise several stranded cables, articulated chain lengths, or the like. It is inherent in this type of suspension that the entire flexible portion of the arrangement is above the level of the center of gravity of the chair-worker system, thus promoting greater stability. A substantially horizontal safety bar 10, has one end connected to the member 2, and the other end connected to the member 3. Intermediate its ends, the safety bar 10 is adapted to extend around the back of a worker (not shown), seated in said boatswain's chair and serve to restrain said worker from falling backward. Snap rings 11 and 12, are mounted on the members 2 and 3, respectively, and a safety line 13, is adapted to have one end snap onto the ring 11, the other end snap onto the ring 12, and the portion intermediate its ends extend around the front of said worker and prevent him from falling forward.

Each of the said members 2 and 3, is also provided with a hook 14, and a second snap ring 15, secured thereto for supporting tools and other equipment required by the worker. This permits the worker to have the free use of both hands.

A horizontally disposed platform 16 comprises rectangular frame 17, which is disposed between said members 2 and 3, and secured thereto adjacent their lower ends and a seat 18 mounted on the frame 17. The frame 17, may be formed of angle iron or other suitable material, and is provided with braces 19, strengthening the connection between the frame 17 and the members 2 and 3. The seat 18 is formed of wood or other suitable material.

Boatswain's chairs are frequently used to support workers involved in work upon vertical surfaces. It is generally desired that the worker face the vertical surface, sit in the chair and have his legs hang down between the seat and said vertical surface. Accordingly the platform 16 of the present invention is provided with spaced abutting elements 20, which are generally T-shaped, the base of the T's being secured to the frame 17, and the abutting elements 20, extending horizontally from said frame 17, the cross

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bars 21 of the T's thus being vertically disposed and adapted to engage said vertical surface and maintain said platform in spaced relation relative to said vertical wall. The abutting elements 20 of course extend outwardly from the seat 18 sufficiently so that the cross bars 21 will lie beyond the knees of a worker seated on the chair. This permits the cross bars 21 to bear against the vertical working surface rather than imposing this burden on the knees of the worker.

The frame 17, of the platform 16 is preferably provided with two legs 22, positioned on said frame 17 in opposed relation to the abutting elements 20, and adapted to cooperate with the downwardly extending portion of the cross-bars 21, on the abutting elements 20, to support the boatswain's chair in an upright position when it is lowered onto a horizontal surface.

While I have shown but one embodiment of my invention, it is susceptible to modification without departing from the spirit of the invention. I do not wish, therefore, to be limited by the disclosures set forth, but only by the scope of the appended claims.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

I claim:

1. In a boatswain's chair adapted to support a worker adjacent a vertical surface, in combination, a frame comprising a pair of substantially parallel members having their upper ends brought together and provided with an eye, and a safety bar secured to both of said members and extending around the back of said worker, a snap ring mounted on each of said members and a safety line adapted to snap on to each of said snap rings and extend around the front of said worker, a platform disposed between said members and secured to said members adjacent their lower end, abutting elements mounted on said platform and adapted to engage said vertical surface to maintain said platform in spaced relation to said vertical surface, at least one leg mounted on said platform in opposed relation to said elements and cooperable with said elements to support said boatswain's chair in an upright position when said chair is lowered onto a horizontal surface, and a hook and a second snap ring mounted on each of said parallel members for supporting tools and other equipment required by said worker.

2. In a boatswain's chair adapted to support a worker adjacent a substantially vertical surface, in combination, a frame having an eye formed at its upper end, a platform secured to said frame adjacent its lower end, abutting elements mounted on said platform and adapted to engage said vertical surface to maintain said platform in spaced relation to said vertical surface, and at least one leg mounted on said platform in opposed relation to said elements and cooperable with said elements to support said boatswain's chair in an upright position when said chair is lowered onto a horizontal surface.

3. A boatswain's chair adapted to be suspended to support a worker, comprising a relatively rigid

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frame; a platform rigidly secured to said frame adjacent its lower end; and means on said frame adapted to receive a suspending element for suspending said chair, said means being located substantially higher than but generally in a vertical line with the center of gravity of the system comprising said chair and said worker.

4. A boatswain's chair adapted to be suspended to support a worker, comprising a relatively rigid frame; a platform rigidly secured to said frame adjacent its lower end; and means on said frame adapted to receive a suspending element for suspending said chair, said means being located substantially higher than the center of gravity of the system comprising said chair and said worker and on a vertical line substantially perpendicular to the plane of the platform when the chair is suspended.

5. A boatswain's chair suspension arrangement comprising a flexible suspension element portion and a boatswain's chair, said boatswain's chair adapted to support a worker and including a rigid frame and a platform rigidly secured to said frame; means on said rigid frame located at a level above the center of gravity of the system comprising said worker and said boatswain's chair for receiving said flexible suspension element portion, said flexible suspension element portion being attached to said receiving means in such a manner that the entire flexible element portion of said arrangement is above the level of the center of gravity of the system comprising said worker and said boatswain's chair.

6. A unifilar boatswain's chair suspending arrangement comprising a unifilar flexible suspending element and a boatswain's chair including a relatively rigid frame and a platform rigidly secured to said frame; means on said frame for receiving said suspending element, said means being located substantially higher than but generally in a vertical line with the center of gravity of the system comprising said chair and said worker, and said suspending element being attached to said means whereby said boatswain's chair is supported in unifilar suspension with the entire flexible portion of said arrangement located above the level of the center of gravity of the system comprising said chair and said worker.

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