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(12) # EUROPEAN PATENT APPLICATION

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(54) **Support means.**

(57) This invention relates to an improved support means comprising of a base, a member extending upwardly from said base, said member being resilient in the seating means longitudinal axis and a pivot attached to said member. This said support means is, particularly but not exclusively, seats used in sailboats and cruisers by helmsmen, which seat supports the body of the helmsman, but permits the helmsman's feet to remain in contact with the deck of the boat and allows him to change his body position to compensate for the pitching of the boat. Another version of these supports means can be used with a desk or draft table in an office or home.

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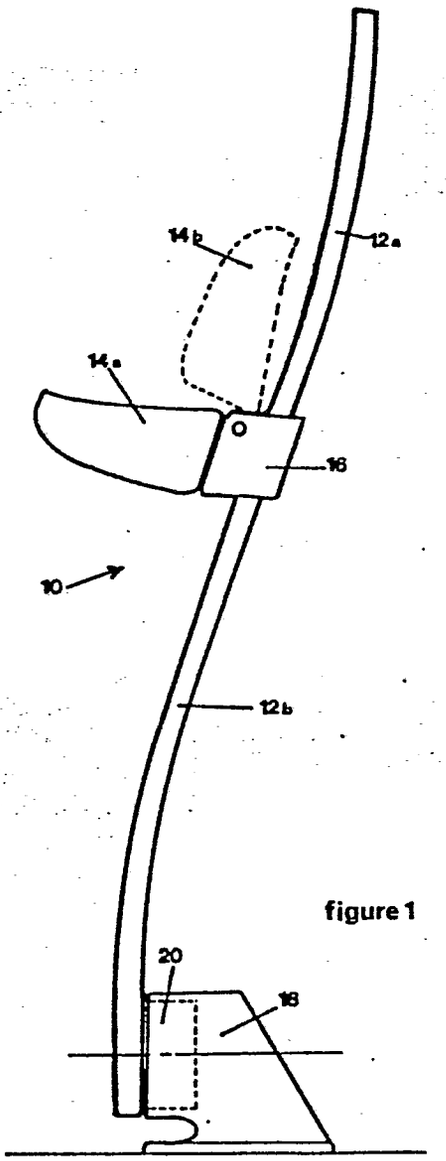

figure 1

FIELD OF THE INVENTION

This invention relates to support means, particularly but not exclusively seats used in sailboats and cruisers by helmsmen, which seat supports the body of the helmsman, but permits the helmsman's feet to remain in contact with the deck of the boat and allows him to change his body position to compensate for the pitching of the boat.

Another version of these support means can be used with a desk or draft table in an office or home.

DESCRIPTION OF PRIOR ART

In Canadian Patent No. 86,546, there is disclosed a seat which is adjustable in height relative to the floor of a vehicle and which is pivotally connected to a base member attached to the floor of the vehicle. The seat can be moved to, and retained in, a plurality of angular positions relative to the floor, but when located in any one of the locations, it is rigidly retained in that position.

Canadian Patent No. 719,119 (Cramer) discloses a seat or resting support which is adjustable in height and is supported by three leg-like members which, when the seat is in use, are free-standing on a factory floor.

The seats in both these Patents, whilst supporting the body of a user also permit the user's feet to remain in contact with the ground. However, in both

constructions, should the need arise for the operative to lean forward, then he may have to raise his body from the seat, since the seat shown in Canadian Patent 86,546 is rigidly attached to the floor, whilst if using the seat or resting frame of Cramer, the rear leg would be raised from the floor with the possibility that the seat may over-balance.

Furthermore, these and other prior art seats do not allow uninterrupted support of the body of an helmsman while allowing him to laterally change his body position to compensate for the lateral pitching of the boat which is often substantial in sailboats.

OBJECT OF THE INVENTION

It is an object of the present invention to provide support means which support the body of an helmsman while his feet remain in contact with the deck of the boat and will permit him to move in any lateral direction relative to the apparatus he is controlling.

It is a further object to provide support means which will permit changes in body positions of an helmsman to be controlled or counter-balanced by the use of his feet.

It is still a further object of the invention to provide support means against which an helmsman may lean.

It is another object of the invention to provide a version of said support means for the home or office.

Therefore, support means according to the present invention include a base, a resilient member extending upwardly from the base and a seat attached to said member. The member may be "S" shaped to provide better clearance for the operator to move when the support means are not in use. For this same reason, the seat may be made to pivot to an upright position when not in use or when used as means to lean against. The height of the seat may be adjustable by known means.

BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention can be understood, and readily carried into effect, and so that the above objects will become apparent, support means in accordance with the present invention will now be described, by way of example only, with reference to the accompanying drawings in which:

figure 1 is a side view of an embodiment of support means in accordance with the invention for use in sailboats;

figure 2 is a perspective view of another embodiment of support means in accordance with the invention for use in the home or office; and

figure 3 is a perspective view of a modification to the lower portion of the embodiment shown in figure 2.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring to the drawing, numeral 10 indicates support means in accordance with the invention comprising a member 12 having a lower portion 12b and an upper portion 12a, a seat 14 connected to member 12 by a connection 16, such as a rack or the like which allows the height of the seat to be adjusted relating to the base. The member is preferably "S" shaped to provide better clearance for the operator's movements when the support means are not in use. Furthermore, member 12 is preferably constructed so that it has the properties of a leaf spring thus allowing some movement towards and away from the apparatus being controlled or the work place.

The said member is connected to a base 18 by means 20 which permit movements in lateral directions but resist movements in any other directions. These means 20 are preferably provided with means such as friction disks or the like which displacement allow the seat to remain in the position it occupied when lateral forces are removed. The pivoting means may also be provided with means such as a spring or the like which bring the seat back to its upright position when such forces are removed.

The seat 14 preferably has two (2) positions. A first seating position 14a, when seat is lowered, and a second unused or leaning position 14b, when seat is upright. The seat may be biased so that it will automatically return to its upright position when not in use.

The said base 18 is preferably removeably secured to the deck of the boat. It can thus be removed to limit dead weight during competitions.

In the other embodiment which can be seen in figure 2, the support means 50 comprise a member 52 having a lower portion 52b and an upper portion 52a, a seat 54 secured to member 52. Again, the member is preferably "S" shaped and is constructed so that it has the properties of a leaf spring to allow some movement towards and away from the work place.

Member 52 is connected to a base 48 which is an extension of said leaf spring 52 and is designed to permit certain lateral movements without overbalancing. In figure 3, there is shown a base 148 which is another way to achieve this purpose.

The material used to make said member can be wood and preferably laminated wood, plastic and plastic with reinforced fiber, metal or other similar resilient materials.

However, for the boat version, it is important that all materials used to make the seat be non-magnetic and non-corrosive.

CLAIMS

1) Improved support means comprising :

(a) a base (18,48)

(b) a member (12,52) extending upwardly from said base (18,48), said member being resilient in the seating means longitudinal axis ;

(c) a seat (14,54) attached to said member (12,52).

2) Improved support means as recited in claim 1 in which the said member (12,52) has a 'S' shape.

3) Improved support means as recited in claim 1 in which the said member (12,52) is connected to said base (18,48) by pivoting means (20) which permit changes in body position to be controlled or counterbalanced by the user's feet.

4) Improved support means as recited in claim 3 in which the pivoting means allows the said seat to remain in predetermined positions.

5) Improved support means as recited in claim 1,2 or 3, in which the said seat (14) is mounted to said member (12) so as to be moveable between a seating position (14a) and a leaning position (14b).

6) Improved support means as recited in claim 1, 2 or 3 in which the said seat (14) is adjustable (16) in height.

7) Improved support means as recited in claim 1, 2 or 3 in which the said seat (14) is adjustable (16) in

height and is moveable between a seating (14a) position and a leaning (14b) position.

8) Improved support means as recited in claim 1, 2 or 3 in which the said member (12,52) and seat (14,54) are made with non-magnetic and non corrosive materials.

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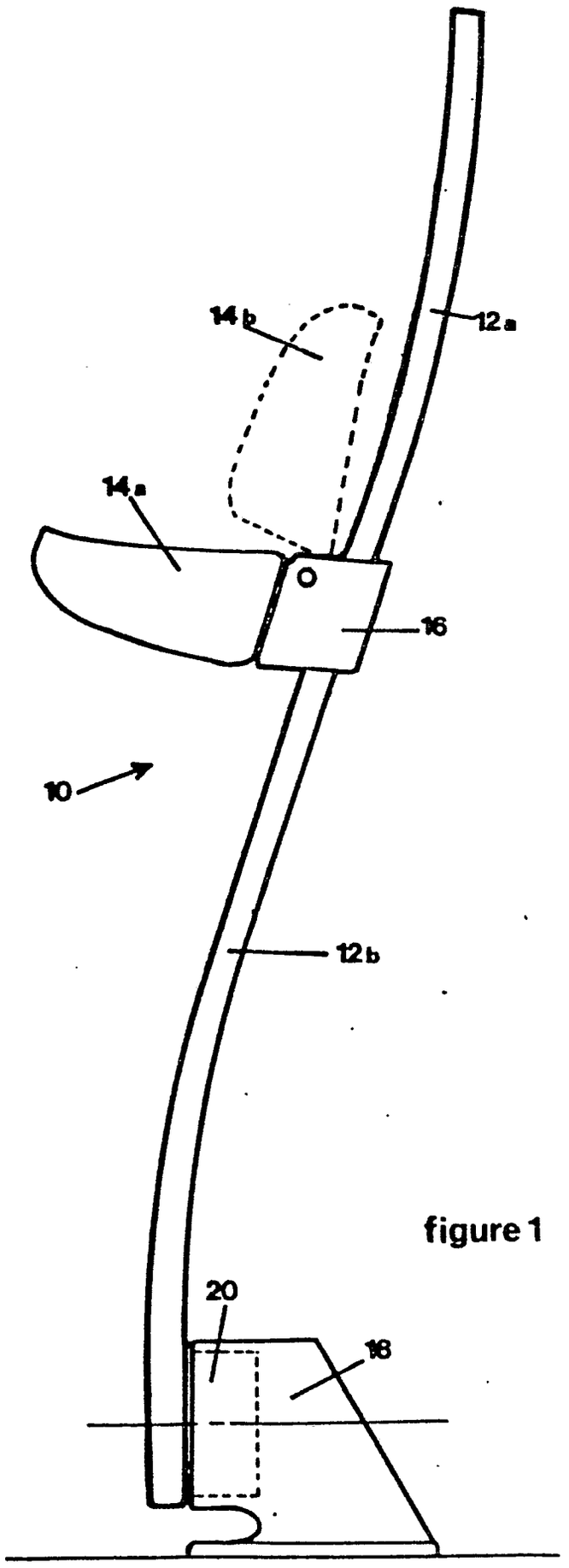

figure 1

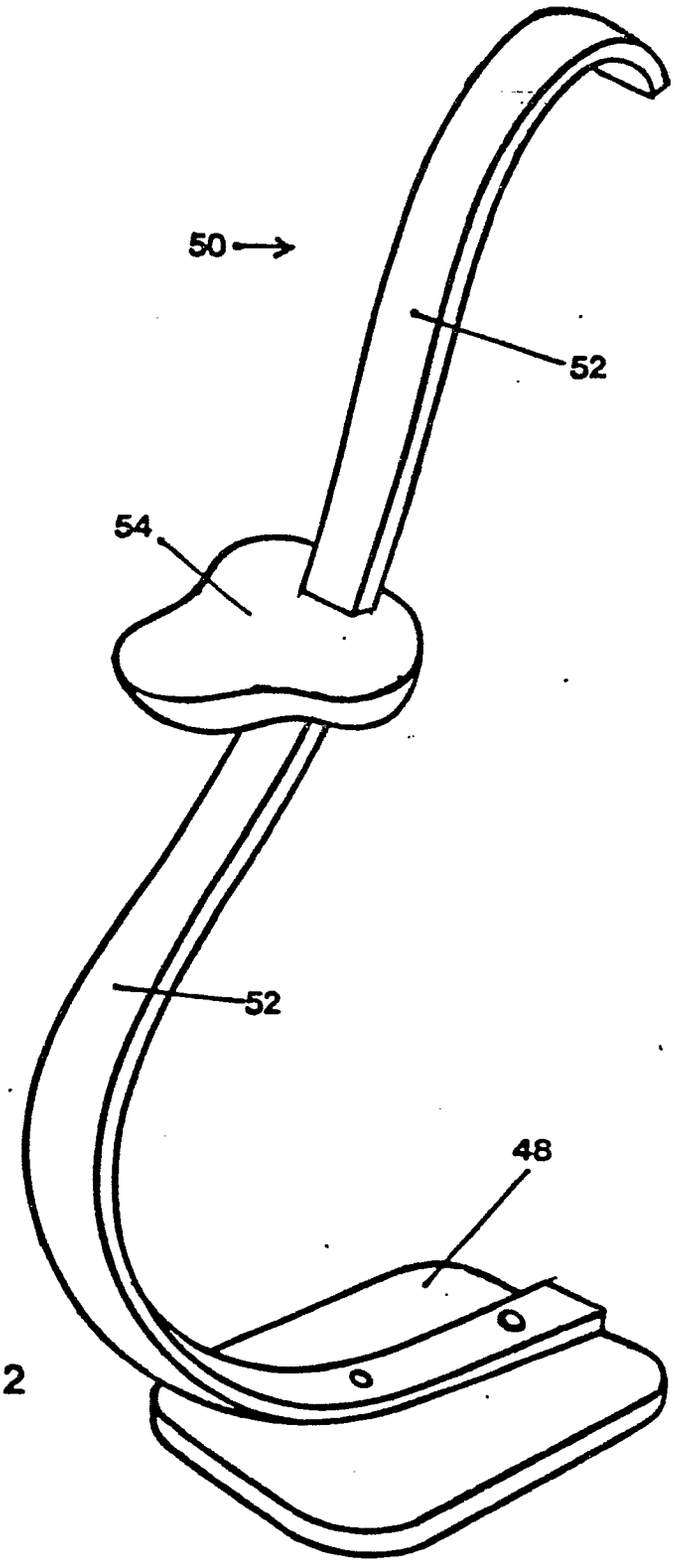

Figure 2

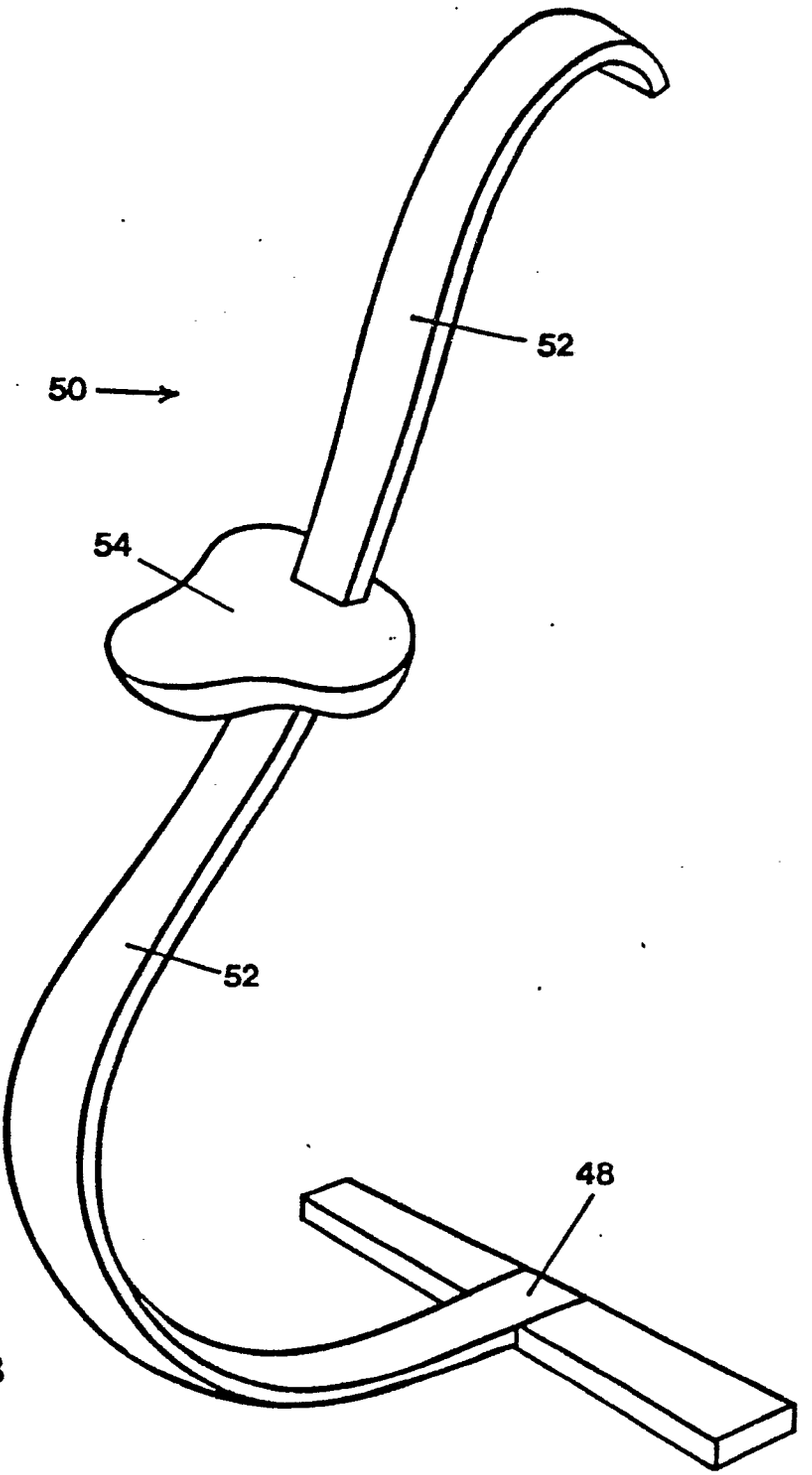

Figure 3