United States Patent [19]

Osborne

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[54] **SUN BATH**

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[52] **U.S. Cl.** **128/372;** 128/376

[51] **Int. Cl.**[2] **A61H 33/06**

[58] **Field of Search** ..... 128/362, 372, 376, 377, 128/395; 135/1 R, 14 R

[56] **References Cited**

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[57] **ABSTRACT**

A sun bathing platform comprises a base member on which a body support member is mounted to be rotatable about a vertical axis and to be movable to varying angles of inclination to the horizontal, the body support member being provided with a receiving surface for receiving the suns rays and an apertured member spaced from the receiving surface for restricting the passage of the suns rays and the receiving surface having means for indicating when a body support surface of the body support member is normal to the suns rays.

9 Claims, 4 Drawing Figures

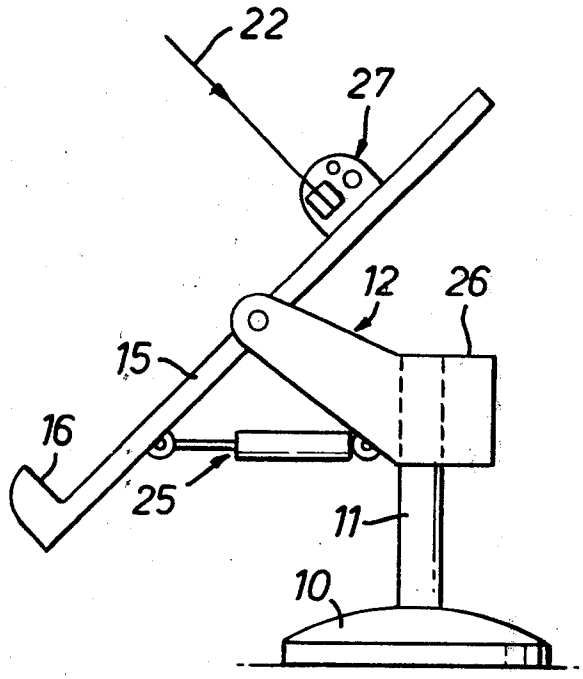


FIG. 1

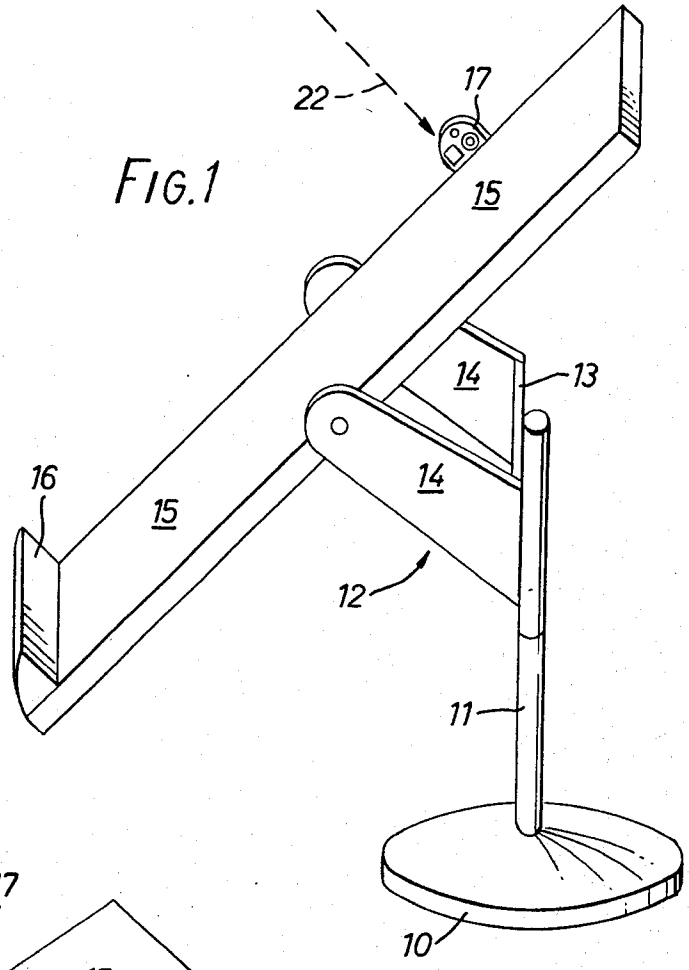


FIG. 2

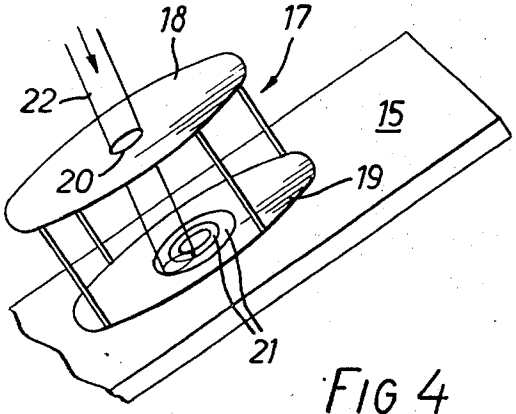
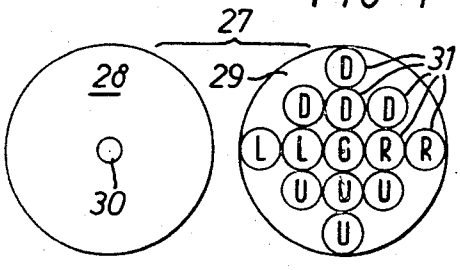


FIG 4



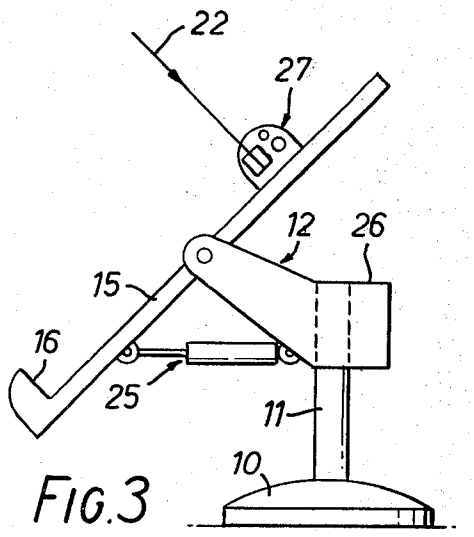


FIG. 3

SUN BATH

BACKGROUND OF THE INVENTION

This invention relates to sun baths and in particular to platforms therefor.

Numerous people consider it psychologically beneficial, if not physically advantageous, to sunbathe and obtain a tan (especially a body tan). In this country for example, the acquisition of a body tan usually takes longer than in say equatorial climes. Such a time penalty is considered undesirable (particularly by persons on fixed duration holidays) and it is an object of the present invention to enable a faster tan to be obtained.

SUMMARY OF THE INVENTION

According to this invention, there is provided a sunbathing platform comprising a base member, a body support member rotatably mounted on the base member so as to be rotatable about a vertical axis and movable to varying angles of inclination to the horizontal; a body support surface on said body support member; a receiving surface on the body support member for receiving the suns rays and a surface spaced from the receiving surface having an aperture for restricting passage of suns rays to the receiving surface, wherein the receiving surface is marked or otherwise delimited whereby rays of the sun passing through the aperture give an indication when the body support surface is in a plane normal to the direction of rays from the sun.

BRIEF DESCRIPTION OF THE DRAWINGS

By way of example, embodiments of the present invention will now be described, reference being had to the accompanying drawings, of which:

FIG. 1 is a perspective sketch of a first platform according to this invention;

FIG. 2 is a sketch of an indicator therefor;

FIG. 3 is a side elevation of a second platform according to this invention, and

FIG. 4 is a plan view of an array of radiation-sensitive cells therefor.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

As shown in FIG. 1 a rigid, heavy base **10** has a pole **11** upstanding vertically therefrom. A U-shaped structure **12** with cross-piece **13** and limbs **14** is pivotally mounted to the upper end of the pole **11** by its cross-piece **13.** A rectangular platform **15** is pivotally mounted at the ends of the two limbs **14** which serve as trunnions for the platform. A foot rest **16** is provided across the lower end of platform **15** at right angles thereto. An indicator unit **17** is rigidly attached to the platform **15** adjacent its upper end at one side edge.

As illustrated in FIG. **2,** the indicator unit **17** comprises two co-axial plates or discs **18, 19** spaced parallel to one another and to the upper surface of the platform **15.** The upper disc **18** is centrally provided with a circular aperture **20** and the lower disc **19** is marked centrally with concentric rings or bands **21.** The direction of the sun's rays is shown in FIG. 2 as a beam of radiation **22.** It will be apparent that if the platform **15** is positioned with its upper generally planar surface normal to the beam **22,** the visible radiation passing through circular aperture **20** will be seen on the innermost region **21.** As the earth moves relative to the sun, the beam **22** will move off-centre on lower disc **19** in a direction which is the compound of two mutually perpendicular motions. These two motions are the relative arcuate travel of the sun and earth, and the varying altitude of the sun. Thus for the twelve hour period between say **8** a.m. and **8** p.m. in August in England, a sun bath taken with radiation incidence directed normally to the platform **15,** i.e. generally normal to the human body or bodies lying on its upper surface, will require that the platform be rotated about the vertical axis of pole **11** through an angle corresponding approximately to the earths rotation, i.e. through **180°** and have its inclination from the vertical varied continually from about **20°** in the morning to about **70°** at mid-day and back to about **20°** in the evening. The accuracy of this can be checked by ensuring that the beam **22** is always incident on the lower disc **19** centrally of its innermost region **21.**

Whilst lying in a prone position the occupant (or one of several occupants) of the platform **15** can alter its attitude with respect to earth (to ensure the normal incidence thereon of the sun's radiation) by a system of one or more cords and pulleys (not shown). Alternatively or additionally one or more locking mechanisms (also not shown) may be provided to render the platform immovable after it is set to a particular one of several discrete attitude-settings which are made at intervals throughout the day.

If desired, the indicator unit **17** could be modified by placing a radiation-sensitive cell at the centre of the lower disc **19,** and placing this cell in circuit with a relay, battery and buzzer. The circuit would be so arranged as to give an audible signal as to when the platform **15** should be reorientated.

The platform may have its attitude changed automatically by, for example, the embodiment of FIGS. **3** and **4.** In this, a piston-cylinder ram device **25** is pivotally mounted between the pole **11** and the underside of platform **15.** The ram device is hydraulically or pneumatically operable upon appropriate energisation of a reversible electric motor. The indicator unit (here referenced **27**) comprises two coaxial discs **28, 29** spaced apart parallel to one another and to the upper surface of platform **15.** The two discs are shown separated in FIG. **4.** The upper disc **28** is provided centrally with a circular aperture **30,** and the lower disc **29** is provided with an array of photocells **31** that are connected through an electric circuit to the electric motor. If the sun's radiation passing through aperture **30** impinges on the central photocell **31** marked "G", then the electric motor receives no output signal from the electric circuit and the platform **15** remains in the position obtaining at that time. If the sun's radiation passing through aperture **30** impinges on a photocell references "U" (up) or on a photocell references "D" (down), then the reversible electric motor receives an appropriate output signal from the electric circuit and causes the piston-cylinder ram device **25** to move the platform **15** up or down respectively. Another reversible motor is responsive to signals from the photocells references "L" (left) and "R" (right) to rotate the structure **12** about the vertical pole **11.** If the beam **22** impinges on an L-referenced photocell **31,** the structure **12** and the platform **15** supported thereby rotate anti-clockwise (when viewed from above). If the beam **22** impinges on an R-referenced photocell **31,** the structure **12** and the platform **15** supported thereby rotate clockwise (when

viewed from above). The U-shaped structure **12** is preferably counter-balanced as at **26.**

The electric circuit may incorporate a time delay giving an elapsed time period of say **20** minutes between reception of a sensing signal change from the photocell array **31** and the transmission of an output signal to one or both electric motors. This will allow for the sun-light being obscured e.g. by passers-by and/or by clouds. Clearly the array will need to be large enough to still pick-up the sun's rays after said time period has elapsed.

Furthermore, a settable time switch, preferably mounted with the indicator unit may be connected in circuit with a buzzer to provide an audible warning that the pre-set time of exposure to the sun's rays has passed.

The platform **15** may have side and end screens fitted for nude sunbathing.

What is claimed is:

1. A sunbathing platform comprising a base member; a body support member rotatably mounted on the base member so as to be rotatable about a vertical axis and movable to varying angles of inclination to the horizontal; a body support surface on said body support member; a receiving surface on the body support member for receiving the suns rays and a surface spaced from the receiving surface having an aperture for restricting passage of suns rays to the receiving surface, wherein the receiving surface is marked or otherwise delimited whereby rays of the sun passing through the aperture give an indication when the body support surface is in a plane normal to the direction of rays from the sun.

2. A sunbathing platform according to claim **1,** including identifying markings on said receiving surface whereby on receipt of rays from the sun via said aperture, a visible indication of direction relative to the sun is provided.

3. A sunbathing platform according to claim **2,** wherein said aperture is circular and said receiving surface is marked with one or more annular bands concentric with said circular aperture.

4. A sunbathing platform according to claim **1,** including at least one radiation sensitive detector mounted on the receiving surface and an audio signal emitter connected in circuit with the radiation sensitive detector(s).

5. A sunbathing platform according to claim **4,** including a time delay device coupled between said radiation sensitive detector and said audio signal emitter, whereby an elapse time period between response of said radiation sensitive detector and operation of said audio signal emitter is effected.

6. A sunbathing platform according to claim **1,** including at least one radiation sensitive detector mounted on the receiving surface, and a control mechanism operatively coupled with said body support member and connected in circuit with said radiation sensitive detector whereby control of the inclination and angular movement of said support member is automatically controlled in dependence of the position of the support member relative to the sun.

7. A sunbathing platform according to claim **5,** including a time delay device coupled between said radiation sensitive detector and said control mechanism, whereby an elapse time period between response of said radiation sensitive detector and operation of said control mechanism is effected.

8. A sunbathing platform according to claim **4,** including a settable time switch mounted thereon and adapted for indicating a preset time of exposure to the suns rays.

9. A sunbathing platform according to claim **5,** including a settable time switch mounted thereon and adapted for indicating a preset time of exposure to the suns rays.

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