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(54) Relaxation and psychosensorial stimulation enclosure

(57) The apparatus comprises an enclosure intended for creating a space protected and isolated from its environment, in which the user takes his place, via an airlock and a control cabinet connected to the enclosure. The control cabinet comprises a computer, an information (e.g. magnetic tape) reader, an apparatus for conditioning the air in the enclosure, an ionizer and a diffuser of aromas. The enclosure is produced in the form of a shell of sandwich type, (e.g. composed of rock wool caught between two composite walls of glass fibre and polyester resin) and is impervious to heat and to radiations (thanks e.g. to the addition of barium sulphate to the polyester resin). A Faraday cage is in addition placed in the walls. A plurality of apparatus enabling the generation of psychosensorial stimulations is arranged in the enclosure.

The enclosure may include a heated bunk contained in a synthetic tank of high heat insulating capacity and containing a number of layers of cylinders of rubber inflated with air, covered over the whole area of the bunk with a flexible and impermeable heater panel. Hollow spheres of rubber having very fine walls, which are highly deformable and contain a liquid, may be distributed side by side over this panel. The bunk can be covered over with a fine padding of synthetic cotton wool, to let air circulate, and a covering of elastic-mesh cotton.

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APPARATUS FOR RELAXATION AND PSYCHOSENSORIAL STIMULATION

The object of the present invention is an apparatus for relaxation and psychosensorial stimulation.

Man today sees his health more and more threatened by his own behaviour, by the socio-professional demands of daily life and the difficulties that he has in adapting to it. Stress is in a fair way to becoming one of the most important causes of the sicknesses of our century.

Psychosensorial stimulation consists in the synthesis of a number of leading psychotechniques such as sophrology, suggestopaedia, hypnopaedia, subliminal information, etc., the common point of which lies in the necessity of an optimum base for relaxation. Psychosensorial stimulation applies the known principle of sensorial isolation which by suppressing the external causes of stress thanks to the total control of a specific environment, enables states of relaxation of an unaccustomed depth to be attained. By placing himself simply in an enclosure of sensorial isolation, the subject immediately becomes relieved of the permanent effort of maintaining his homeostatic equilibrium. The total relaxation which he obtains thus favours the emergence of states of consciousness characterized by a focusing of the mind upon itself. He may then devote his energy to the exploration and development of his mental space either actively (creative meditation, search, ideation) or passively (contemplation, waking dream). In a simpler perspective of detachment and rest, sensorial isolation is of a rare efficacy. In short, it is generally admitted that a session of one hour equates in mental relaxation to four hours of deep sleep.

The first experiences of sensorial isolation took place in the United States some thirty years ago. The subject was floating upon water saturated with salt contained in a sound-insulated and lighttight coffer. Then a simpler and altogether more hygienic method was studied in which the salt water was replaced by a special mattress. The technique employing salt water presents, in short, numerous disadvantages which were rapidly made evident by public use. Apart from the psychological aspects (hydrophobia, etc.), the moisture given off, the salt being aggressive to the body, and the viscous consistency of the solution are prejudicial to comfort in use, and hence to the performance of the apparatus. Further, the hygiene of this system is risky because of the impossibility of changing the water between each session. Technological progress in the domain of synthetic materials at present enables the construction of a dry support having a fluid behaviour offering the same advantages as floating upon salt water and nearly optimum comfort.

The aim of the present invention is to propose an apparatus for relaxation and psychosensorial stimulation conceived unpon a principal of polyvalent and evolutive modules which are easily transformable in order to be able to receive supplementary or personalized equipments and which will enable development without restrictions of the multiple possibilities of application of this type of apparatus.

For this purpose the invention is concerned with an apparatus for relaxation and psychosensorial stimulation, characterized in that it includes an enclosure intended to create a space protected and isolated from its environment, in which the user takes his place, connected to a control cabinet comprising a computer, an information carrier and its reader, an apparatus for conditioning the air, an

ionizer and a diffuser of aromas, the enclosure being equipped with a pneumatically aided airlock and including a bunk having fluid behaviour and a plurality of apparatus enabling the generation of psychosensorial stimulations, the enclosure comprising an outer envelope impervious to radiations and electromagnetic waves, realized in the form of a shell of sandwich type including a heat and sound insulating matter caught between two walls of synthetic matter including a non-toxic matter having the effect of a screen against radiations, this matter being added to the synthetic matter at the time of manufacture of the walls, and a metallic screen intended to create a Faraday cage effect.

In accordance with one embodiment the two walls of the shell are composite walls of glass fibre and synthetic resin.

The screen may be embedded in one of the walls of the shell or placed between the walls of the shell.

In one embodiment the bunk is heated and is contained in a synthetic tank having a high heat-insulation capacity, the bottom of the tank including at least one layer of cylinders of elastic synthetic matter or of rubber inflated with air, the pressure in each cylinder being separately adjustable, whilst the bottom of the tank may include a plurality of layers of cylinders inflated with air, arranged horizontally in the direction of the width and covered over the whole area of the bunk by a flexible and impermeable heater panel containing electrical resistances, over which is arranged at least one hollow element of elastic synthetic matter or of deformable rubber, containing a liquid or a colloid, the said element being attached to an elastic trellis intended for ensuring its position, whilst the whole may be covered with a padding of foam or of

synthetic cottonwool enabling circulation of the air, and with a covering.

In accordance with one variant embodiment, the tank includes a plurality of hollow spheres of elastic synthetic matter or of rubber, arranged side by side on the heater panel and attached to the elastic trellis.

The enclosure may include a device for interior illumination comprising a bundle of optical fibres each joined at one end to a source of light, the second end lying flush with the surface of the inner coating of the enclosure.

In accordance with one embodiment of the illumination device, the second ends of the optical fibres are distributed and embedded in a panel of opaque synthetic resin the visible face of which is polished, their end sections lying flush with the surface of the visible face of the synthetic resin panel.

The apparatus may include in addition a plurality of movable colour filters intended to cooperate with the illumination device and controlled by a motor.

The operations of psychosensorial stimulation include, for example, an induction stage modificatory of the level of consciousness of the user and intended to lead him into a state of deep relaxation, a stage of interiorization in which the user lives in total lucidity modified states of consciousness and a stage of reintegration intended for the reappearance of bodily consciousness and of consciousness of waking of the user, synchronized with the progressive reappearance of the basic environment in the enclosure.

Other characteristics and advantages of the invention will stand out better from the description which

follows, given by way of example.

The apparatus comprises two main elements : an enclosure intended for creating a space protected and isolated from its environment in which the user takes his place, and a control cabinet connected to the enclosure.

The control cabinet comprises a computer which manages the whole of the operations developing in the enclosure. A magnetic tape reader serves for transmitting the information and the sound and image effects as a function of the programmes and codes recorded upon the magnetic tapes in accordance with a suitable method. The cabinet includes in addition an apparatus for conditioning the air in the enclosure, an ionizer and a diffuser of aromas. The magnetic tape reader may be replaced by any reader of numerical or analogue information such, for example, as a laser disc or video disc reader.

The enclosure consists of an outer envelope or shell impervious to radiations and to electromagnetic waves. This shell is of sandwich type, composed of rockwool or of any other heat and sound insulating matter placed between two composite walls of glass fibre and polyester resin or any other synthetic matter rendered impervious to radiations thanks to the addition of barium sulphate to the polyester resin at the time of manufacture of the composite walls, or of any other non-toxic inert matter having a screening effect against radiations. This shell is in addition impervious to electromagnetic waves by Faraday cage effect, thanks to a metallic screen executed, for example, in the form of a stainless steel trellis placed in one of the walls of the shell or between the two walls of the shell. In this enclosure is arranged a plurality of apparatus enabling the generation of psychosensorial stimulations such, for example, as acoustic enclosures, indirect illumination,

phosphene lamps and a holographic projector. These apparatus are employed as a function of the programmes and serve to create within the individual a state of relaxation and of total receptivity. The interior design is executed so as to be able to receive other elements such, for example, as a video monitor, a holographic projector, a computer, an interphone, etc. The enclosure includes in addition a bunk upon which the user takes his place. The bunk is heated and executed so as to mould itself perfectly to the surface of the body of the user and to enable this user to adopt a position of ideal relaxation.

In accordance with a preferred embodiment the bunk is contained in a rectangular synthetic tank of high heat insulating capacity. The bottom of this tank contains a number of layers of cylinders of rubber or of elastic synthetic matter inflated with air, the pressure in each cylinder being separately adjustable. These cylinders are arranged horizontally in the direction of the width. They are covered over the whole area of the bunk by a flexible and impermeable heater panel containing electrical resistances. Hollow spheres of rubber or of elastic synthetic matter, having very fine walls, highly deformable and containing water or any other liquid or colloidal fluid, are distributed side by side over this panel. These spheres are attached at the bottom by their filler valves to an elastic trellis which ensures their positioning. The bunk is covered over with a fine padding of foam or synthetic cottonwool letting air circulate and finally a covering of elastic-mesh cotton. This covering is overlaid with a second interchangeable covering which will come into contact with the body of the user.

The illumination inside the enclosure may be executed with a "starry sky" effect by employing a bundle of optical fibres each joined at one end to the inside of a

metallic cylinder containing a source of light. The second, free ends of the optical fibres lie flush with the surface of the inner coating of the enclosure. These second ends may, for example, be distributed and embedded in a plate of opaque synthetic resin the visible face of which is polished and allows the end sections of the optical fibres to lie flush with its surface so that they thus appear as so many small points of light. One or more coloured filters may possibly be interposed or arranged so as to co-operate with the illumination device, being controlled by a motor.

The control of the various stimuli perceptible by the senses of the user is ensured by a microprocessor. By modifying the sensations of the user by adequate software it is possible to recreate an environment of ideal type propitious to the flowering of consciousness and to introduce into it a programme of psychosensorial stimulations. The operation of the apparatus of the invention is designed for maximum comfort and simplicity in use. The user places in the information reader a cassette or any other adequate carrier containing the programme chosen. He installs himself in the enclosure and closes the airlock at the access. The controlling software is then automatically started and gives verbally the necessary instructions. Guided by the programme, the user is placed very rapidly in a state of deep relaxation. The programme of psychosensorial stimulation includes an induction stage modificatory of the level of consciousness of the user and intended to lead him into a state of deep relaxation, of loss of awareness of his body and of focusing of his mind upon himself, a stage of interiorization in which the user lives with complete lucidity modified states of consciousness such as the waking dream, depersonalization, perception of time at the speed of thought, olistic consciousness, psychic hypersensitivity to parapsychological manifestations. At this moment all of the conditions

necessary to an exploration of inner space are united and the programme pursues the conduct of the session as a function of its specific aim. In order to terminate, the user is brought progressively to a level of consciousness compatible with the exterior and he can leave the enclosure without any effort of re-adaptation. During the whole session the microprocessor displays on an external video monitor the different phases of the programme in train, this being in order to enable external visual checking.

The apparatus of the invention offers a vast choice of applications at physical, psychic and mental levels :

- preservation of health (control of weight, stopping smoking, recovering sleep, prevention of cardiovascular diseases);
- development of the psychism (positive thought, confidence in oneself, coming to grips with fright and timidity, creativity);
- development of the mind (learning languages, memorization, abstract reasoning);
- medical applications (psychic trouble, allergy, chronic intoxication);
- treatment of psychosomatic diseases (asthma, ulcers, hypertension);
- specific applications (sporting training, preparation for childbirth, sexual harmonization, preparation for examinations);
- recovery of hour-to-hour displacement (regulation of sleep and resumption of normal biological rhythm).

By the polyvalence of their applications, the apparatus for relaxation and psychosensorial stimulation present themselves as veritable vehicles of exploration of new states of relaxation and of consciousness. That is why they have been given in general the name of shuttles.

CLAIMS

1. An apparatus for relaxation and psychosensorial stimulation, characterized in that it includes an enclosure intended to create a space protected and isolated from its environment, in which the user takes his place, connected to a control cabinet comprising a computer, an information carrier and its reader, an apparatus for conditioning the air, an ionizer and a diffuser of aromas, the enclosure being equipped with a pneumatically aided airlock and including a bunk having fluid behaviour and a plurality of apparatus enabling the generation of psychosensorial stimulations, the enclosure comprising an outer envelope impervious to radiations and electromagnetic waves, realized in the form of a shell of sandwich type including a heat and sound insulating matter caught between two walls of synthetic matter including a non-toxic matter having the effect of a screen against radiations, this matter being added to the synthetic matter at the time of manufacture of the walls, and a metallic screen intended to create a Faraday cage effect.

2. An apparatus as in Claim 1, characterized in that the two walls of the shell are composite walls of glass fibre and synthetic resin.

3. An apparatus as in one of the Claims 1 or 2, characterized in that the screen is embedded in one of the walls of the shell.

4. An apparatus as in one of the Claims 1 or 2, characterized in that the screen is placed between the walls of the shell.

5. An apparatus as in one of the preceding Claims,

characterized in that the bunk is heated and is contained in a synthetic tank having a high heat-insulation capacity, the bottom of the tank including at least one layer of cylinders of elastic synthetic matter or of rubber inflated with air, the pressure in each cylinder being separately adjustable.

6. An apparatus as in Claim 5, characterized in that the bottom of the tank includes a plurality of layers of cylinders inflated with air, arranged horizontally in the direction of the width and covered over the whole area of the bunk by a flexible and impermeable heater panel containing electrical resistances, over which is arranged at least one hollow element of elastic synthetic matter or of deformable rubber, containing a liquid or a colloid, the said element being attached to an elastic trellis intended for ensuring its position, the whole being in addition covered with a padding of foam or of synthetic cottonwool enabling circulation of the air, and with a covering.

7. An apparatus as in Claim 6, characterized in that it includes a plurality of hollow spheres of elastic synthetic matter or of rubber, arranged side by side on the heater panel and attached to the elastic trellis.

8. An apparatus as in one of the preceding Claims, characterized in that the enclosure includes a device for interior illumination comprising a bundle of optical fibres each joined at one end to a source of light, the second end lying flush with the surface of the inner coating of the enclosure.

9. An apparatus as in Claim 8, characterized in that the second ends of the optical fibres are distributed and embedded in a panel of opaque synthetic resin the visible face of which is polished, their end sections lying flush with the surface of the visible face of the synthetic resin

panel.

10. An apparatus as in one of the preceding Claims, characterized in that it includes a plurality of movable colour filters intended to cooperate with the illumination device and controlled by a motor.

11. An apparatus as in one of the preceding Claims, characterized in that the operations of psychosensorial stimulation includes an induction stage modificatory of the level of consciousness of the user and intended to lead him into a state of deep relaxation, a stage of interiorization in which the user lives in total lucidity modified states of consciousness and a stage of reintegration intended for the reappearance of bodily consciousness and of consciousness of waking of the user, synchronized with the progressive reappearance of the basic environment in the enclosure.

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