United States Patent [19]

Adams

[11] **3,826,250**

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[54] **APPARATUS**

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[52] **U.S. Cl.** ..... **128/24.2,** 128/33, 128/1 B, 272/2

[51] **Int. Cl.** **A61h 21/00**

[58] **Field of Search** ..... 128/33, 24 R, 25 R, 395, 128/66, 1 B, 371, 24.2, 373, 377, 1 R, 24.1, 1 C; 272/2, 56, 33 A

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[57] **ABSTRACT**

A sensory stimulator comprising an enclosed housing, a seat within the housing, and a plurality of sensory stimuli for stimulating the senses of a person seated within the housing.

11 Claims, 4 Drawing Figures

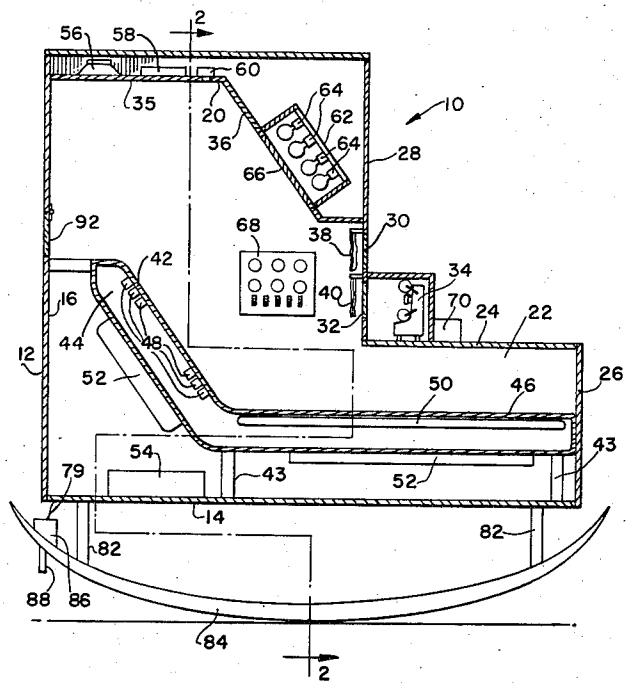


FIG. 2.

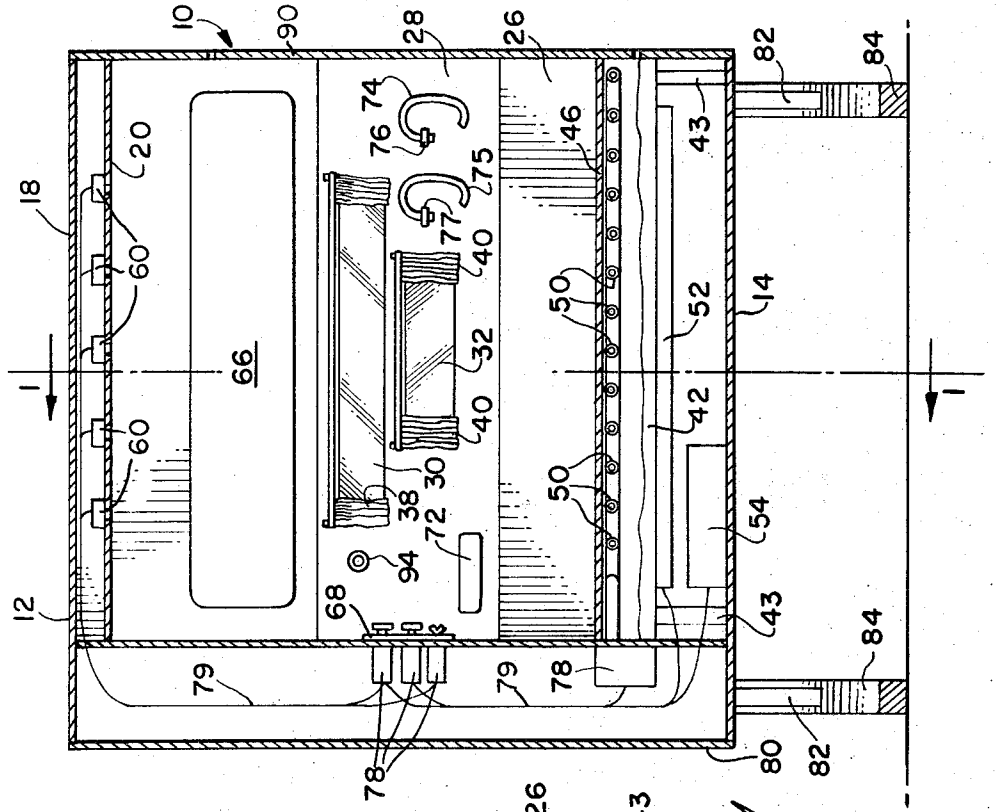

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FIG. 1.

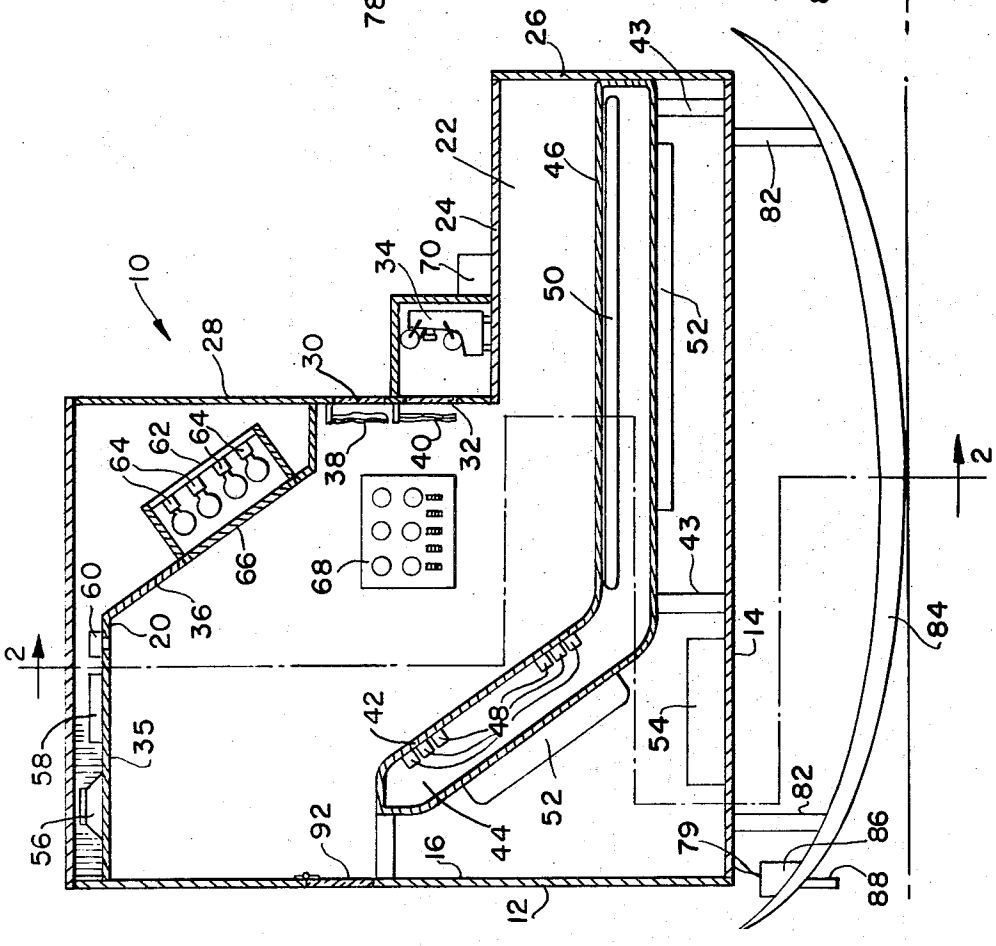

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FIG. 3.

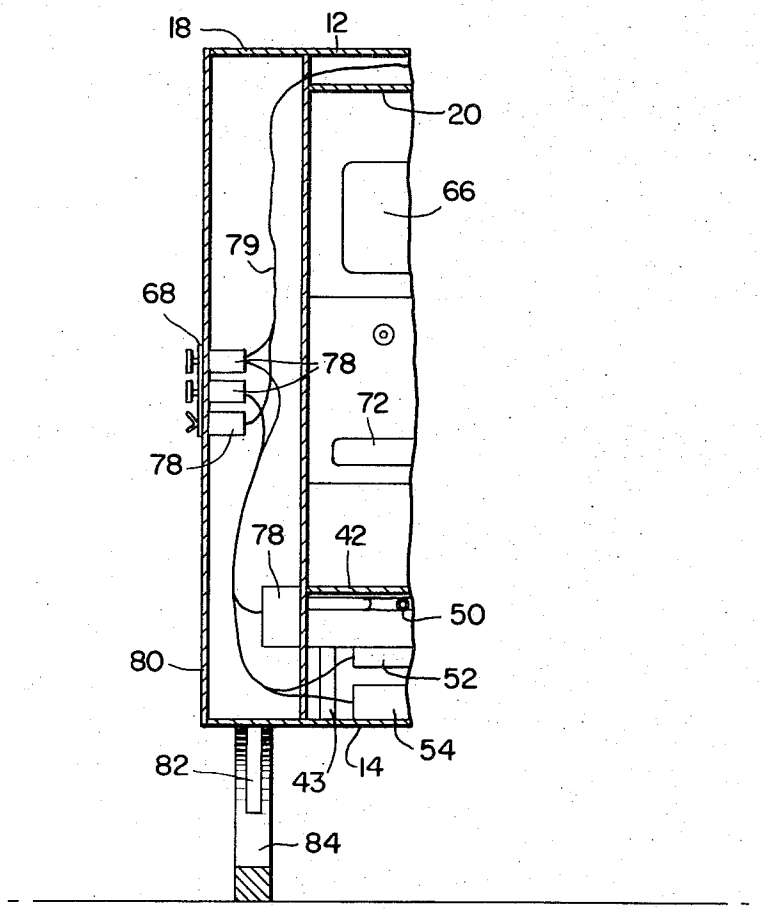
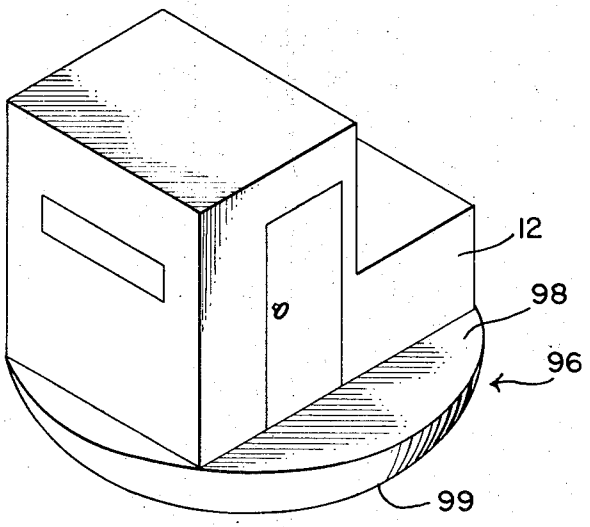


FIG. 4.



APPARATUS

The present invention pertains to a sensory stimulator. More particularly, the present invention pertains to a chamber providing an enclosed housing in which a person can be positioned in a totally enclosed environment to receive stimuli for each of his senses.

Pressure of present-day society results in increased tension of people. This causes tiredness, both physical and mental. In extreme cases, slight emotional abnormalities can result, which in some cases makes professional medical help desirable. In the majority of instances, however, a person suffering from tension-induced fatigue can be rejuvenated by a brief period of relaxation and recreation, for example, by being able for a short time to be in an environment providing relaxing sensory stimulation. The close living, particularly of urban environments, makes it difficult for people to remove themselves from contact with others to such a relaxing environment, particularly during the relatively brief intervals which might be available in an otherwise full schedule.

The present invention is a sensory stimulator for providing relaxation and recreation for persons so desiring. The sensory stimulator of the present invention comprises a chamber within which a person can enclose himself while stimuli are applied for each of his senses to bring about relaxation with resulting physical and mental recreation and rejuvenation. In accordance with the present invention, an enclosed housing is provided having within it a support upon which a person can repose and having available within it a plurality of sensory stimuli. The enclosed housing thus preferably has within it an upholstered seat for the person, permitting him to recline in a comfortable position. The plurality of sensory stimuli can include, for example, loudspeakers or earphones, providing aural stimuli; one or more displays, providing visual stimuli; food, beverage, and tobacco, providing gustatory stimuli; varied scents, providing olfactory stimuli; and temperature control, massage, vibration and rocking, providing tactile stimuli. If desired, the chamber can be adapted to accommodate more than one person so that a friend, doctor, or other therapist can consult with the person and, if desired, can control and observe the effects of the various stimuli. While the sensory stimulator of the present invention provides recreational and relaxing experiences for the user, and thus is as a device for personal pleasure, such a sensory stimulator can be utilized, in accordance with the present invention, by a doctor, psychiatrist or other professional to treat persons within his office.

There really is no limit to the applications of the sensory stimulator of the present invention. By way of example, a coin-operated sensory stimulator, in accordance with the present invention, could be provided in an amusement park or other place of public accommodation with use by the general public upon insertion of money sufficient to cover the operating expense, or a trailer-mounted sensory stimulator could be utilized to provide recreational, relaxing and therapeutic benefits in more remote locations.

These and other aspects and advantages of the present invention are more apparent in the following detailed description and claims, particularly when considered in conjunction with the accompanying drawings in which like parts bear like reference numerals. In the drawings:

FIG. 1 is a sectional view of a sensory stimulator in accordance with the present invention and is taken along line 1—1 of FIG. 2;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is a fragmentary sectional view taken along line 2—2 of FIG. 1 and depicting a slightly modified form of sensory stimulator in accordance with the present invention; and

FIG. 4 depicts another modified form of sensory stimulator in accordance with the present invention.

Sensory stimulator **10**, depicted in FIGS. **1** and **2**, includes an enclosed housing **12** having lower member **14**, rear member **16**, and upper member **18** with false ceiling **20**. The forward portion of housing **12** includes a lower extension **22** having upper surface **24** and front surface **26**. The forward portion of housing **12** further includes front surface **28** with viewing window **30** and display area **32** therein. By way of example, viewing window **30** can be a one-way mirror, permitting viewing from the interior of housing **12** to the exterior, but having a reflective surface to the exterior of housing **12**. Display area **32**, by way of example, might comprise a viewing screen for displaying images from a projection device **34**, such as a movie projector or a slide projector for viewing from within housing **12**. Preferably, curtains or covers **38** and **40** are provided for viewing window **30** and display area **32**, respectively, to permit the covering of these when viewing of the associated displays is not desired.

Ceiling **20** includes horizontal section **35**, in the rearward portion of housing **12**, and sloped section **36** extending from portion **35** to front surface **28**. Sloped section **36** has within it a translucent window **66** behind which is positioned light organ **62**, including a plurality of variously colored lights **64** which, when energized, project light through window **66**, but when not energized are concealed by window **66** from viewing from within housing **12**.

A seat **42** is mounted within housing **12** by support members **43**, permitting a person to recline in a position from which he can readily view window **30**, display **32**, and window **66**. Preferably, seat **42** is upholstered with a reclining back **44** and an extended lowered portion **46** in the manner of a chaise lounge. Seat **42** can incorporate within it a plurality of massage devices **48** which, when activated, provide a massaging effect to a person reclining on seat **42**. One seat incorporating such devices and adaptable for inclusion within a sensory stimulator in accordance with the present invention is shown in U.S. Pat. No. 3,483,862. If desired, seat **42** can incorporate within it a plurality of tubes **50** for conveying temperature control fluid to permit heating or cooling of the seat's surface and a person seated on the seat **42**. Likewise, if desired, vibrators **52** can be provided to cause mild vibration of seat **42**.

Sensory stimulating equipment is positioned between ceiling **20** and upper member **18**. A suitable sound source **54**, such as a record player or tape recording and play-back system, is provided, for example beneath seat **42**, and is coupled to one or more loudspeakers **56** above ceiling **20** to provide musical or spoken aural stimulus. Preferably, a loudspeaker **56** is provided at each side or at each corner of housing **12** to provide stereophonic or quadriphonic sound reproduction. If preferred, earphones can be provided instead of loudspeakers **56**. Some or all of the various lights **64** of light

organ 62 can be energized by a source coupled to sound source 54 so that the lights are energized in conjunction with the sound provided through loudspeakers 56. Alternatively, the lights 64 can be coupled to a random energization source 65 to be energized in a random pattern. Fan 58 is provided to circulate air within housing 12. This air can be from either a heated or cooled source, if desired. A plurality of containers 60, each having within it a scented fluid, are provided with their outlets in communication with the interior of housing 12. Control panel 68 includes controls for the several sensory stimuli, permitting a person on chair 42 to control each of these stimuli individually.

On the upper surface of forward extension 22 is provided a tray 70 which communicates through opening 72 with the interior of housing 12. Various food items are positioned within tray 70 so that the food items are available through opening 72 to a person within housing 12. Likewise, a liquid container can be provided on upper surface 24 in fluid communication with a flexible straw 74 so that a beverage is available to a person within housing 12, and a cigarette or pipe can be attached to flexible straw 75 so that a person within housing 12 can smoke. When not in use, the discharge ends of straws 74 and 75 can be kept within retainers 76 and 77, respectively.

Housing 12 is supported by support members 82 on rockers 84 to permit rocking of housing 12. A motorized rocking device 86 can be provided on one rocker 84, with a shaft 88 which extends to rock housing 12 forward and which then withdraws to permit housing 12 to rock back. Control equipment 78, which with wires 79 couples the controls of panel 68 to the various sensory stimuli, is enclosed within side panel 80. If desired, the control panel 68 and its controls can be provided on the outer surface of side panel 80, as depicted in FIG. 3, rather than within housing 12 so that the various stimuli are controlled by a friend, doctor, or other operator outside the housing rather than by the person within the housing. With control panel 68 within housing 12, the person within the housing controls himself the sensory stimuli, and such design is preferred for sensory stimulators intended for home use, while with control panel 68 outside housing 12 the friend, doctor or other person controls the sensory stimuli, and such design may be preferred where it is desired to permit a person outside the sensory stimulator to present the various sensory stimuli as gifts to the person within housing 12 or for professinal use such as in a doctor's treatment or consultation room.

A sensory stimulator in accordance with the present invention can be provided of a size to accommodate two people so that the friend, doctor or other person can be in the chamber with the person experiencing the chamber to observe and aid the effects of the various stimuli as well as sharing those effects, and to talk or consult with the person. While many different sensory stimuli have been depicted, these are only illustrative of the types of sensory stimuli which might be incorporated into a sensory stimulator in accordance with the present invention, and other sensory stimuli might be provided. It is preferred to provide one or more stimuli for each sense, but fewer could be included if desired. Thus, the drawings only illustrate examples of a sensory stimulator in accordance with the present invention.

Door 90 is provided in one side of housing 12 to permit entry and exit. If desired, a small window 92, preferably having a hinged cover, can be provided in rear member 16, as depicted in FIG. 1, permitting the friend, doctor or other person to observe the person within housing 12 and to provide such person anything he may wish. Preferably, a control such as a pushbutton 94 is provided within housing 12, for example on control panel 68 or on front member 28, permitting a person within the housing to activate an indicator such as a bell or a light outside the housing to indicate that he wants something such as a new type of sensory stimulus.

FIG. 4 depicts a sensory stimulator 96 in accordance with the present invention, including an enclosed housing 12 mounted on hemispherical rocking platform 98. The lower surface 99 of platform 98 is a spherical segment, permitting rocking in any vertical plane. If desired, automated rocking devices, such as rocking device 86, can be included, for example under control of a steering-wheel type of control within housing 12.

Within the scope of the present invention, a sensory stimulator can be provided having the various sensory stimuli coordinated under the control of an automatic control system, such as a small computer. Thus, a wide variety of visual, aural, olefactory, tactile, and even gustatory stimuli can be coordinated to provide a unified atmosphere, for example, providing sensory stimuli typical of a tropical ocean beach or of a lush-green forest, fresh from a spring rain.

Although the present invention has been disclosed with reference to preferred embodiments, numerous modifications and rearrangements might be made and still the result would be within the scope of the invention.

What is claimed is:

1. A sensory stimulator in the form of a personal recreation and relaxation chamber comprising:

a housing for supporting a person entirely therein;

a pair of rockers supporting said housing;

drive means connected to said rockers for driving the rockers to rock said housing;

an upholstered seat within said housing for permitting a person to recline on said seat and entirely within said housing;

vibration means connected to said seat for vibrating a person on said seat;

a recorded sound source;

an electroacoustic speaker within said housing and connected to said recorded sound source for reproducing within said housing sounds recorded on said sound source;

a plurality of variously colored lights within said housing and connected to said sound source for energization in conjunction with sounds reproduced on said electroacoustic speaker;

smoking means for permitting a person within said housing to smoke tobacco;

a scent source coupled to said housing for providing olefactory stimulus to a person therein;

a fan for controlling air flow within said housing; and

control means within said housing permitting a person reclining on said seat to control independently the operation of said drive means, said vibration means, said sound source, said smoking means, said scent source, and said fan;

whereby a person enclosed within said housing is able to have each of his senses stimulated simulta-

neously and is able to control such stimulation so as to provide recreation and relaxation to such person as that person desired.

2. A sensory stimulator as claimed in claim **1** in which said upholstered seat comprises a chaise longue.

3. A sensory stimulator as claimed in claim **1** in which said upholstered seat includes a plurality of massage devices for providing a massage to a person supported on said upholstered seat.

4. A sensory stimulator as claimed in claim **1** in which said upholstered seat includes temperature control means for controlling the temperature of the seat surface.

5. A sensory stimulator as claimed in claim **1** further comprising a one-way mirror permitting persons within said housing to see out, but preventing persons outside said housing from seeing in.

6. A sensory stimulator as claimed in claim **1** further comprising a viewing screen and a projection device for projecting images onto said viewing screen for viewing by a person within said housing.

7. A sensory stimulator as claimed in claim **1** further comprising a source of food.

8. A sensory stimulator as claimed in claim **1** further comprising a source of beverage.

9. A sensory stimulator as claimed in claim **1** further comprising a hemispherical rocking platform attached to said housing for rocking said housing in any vertical plane.

10. A sensory stimulator as claimed in claim **1** in which said support means is adapted to support but one person within said housing.

11. A sensory stimulator as claimed in claim **1** in which said support means is adapted to support two people within said housing.

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