

RADIATION SAUNA BATH APPARATUS

This invention relates to a radiation sauna bath apparatus, more particularly to a radiation sauna bath apparatus including a rays generating unit which is mounted behind a backrest portion of a seat for generating infrared rays in a sauna therapy of the user's back.

A conventional far infrared rays sauna bath apparatus normally includes a housing, a seat mounted in the housing for the user to sit thereon, and a plurality of far infrared rays generating units for generating infrared rays in a sauna therapy. However, since the far infrared rays generating units are generally mounted on a front wall or a top wall of the housing, the far infrared rays generated can only reach the front and sides of the user's body when the user sits on the seat, and can not reach the user's back. Moreover, as the seat has a seat portion and a backrest portion which extends uprightly relative to the seat portion, it does not fit the contour of the user's back, thereby causing discomfort to the user.

The object of the present invention is to provide a radiation sauna bath apparatus which can be used to carry out infrared sauna therapy of the user's back, and which has a seat for the user to sit thereon comfortably.

According to this invention, the radiation sauna bath apparatus includes a housing having a surrounding wall which defines an inner space and an access opening to permit a user to access the inner space, and a door which is pivotally mounted

on the surrounding wall to close the access opening. The surrounding wall includes a backside wall portion which confronts and which is opposite to the door. A seat is disposed in the inner space adjacent to the backside wall portion, and includes a seat portion for the user to sit thereon, and a backrest portion which is formed with a plurality of rays passages extending therethrough. A rays generating unit is mounted between the backside wall portion and the backrest portion, and generates infrared rays which pass through the rays passages to reach a user's back for infrared sauna therapy.

Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments of the invention, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of the preferred embodiment of a radiation sauna bath apparatus according to this invention;

Fig. 2 is a perspective view of the preferred embodiment, a housing thereof being removed for the sake of clarity; and

Fig. 3 is a sectional view of the preferred embodiment.

Referring to Figs. 1 to 3, the preferred embodiment of a radiation sauna bath apparatus according to the present invention is shown to comprise a housing 3, a seat 4, two foot massaging units 5, three first rays generating units 61, a second rays generating unit 62, two third rays generating units 63, a stereo sound system 71, a lighting unit 72, and a control unit 73.

The housing 3 includes a bottom wall 33 which has a floor surface 331, a surrounding wall 31 which extends from a periphery of the bottom wall 33 upwardly to cooperatively confine an inner space 30 with the bottom wall 33, and which defines an access opening 34 in a front wall portion 315 thereof to permit a user to access the inner space 30, a top wall 35 which is opposite to the bottom wall 33, and a door 32 which is pivotally mounted on the surrounding wall 31 to close the access opening 34. The surrounding wall 31 includes a backside wall portion 312 which confronts and which is opposite to the door 32 in a longitudinal direction, and left and right wall portions 313, 314 which are respectively interposed between the front wall portion 315 and the backside wall portion 312, and which confront and which are opposite to each other in a transverse direction relative to the longitudinal direction.

The seat 4 is disposed in the inner space 30 adjacent to the backside wall portion 312, and includes a seat portion 41 for the user to sit thereon, and a backrest portion 42. The seat portion 41 is spaced apart from the floor surface 331 in an upright direction, and includes left and right support shafts 411 which are secured on the left and right wall portions 313, 314, respectively, and a plurality of bars 412 which are supported on the left and right support shafts 411 and which are displaced from one another in the longitudinal direction by a plurality of gaps. The backrest portion 42 includes six support plates 421 which are spaced apart from one another

in the transverse direction, and each of which has a rear end edge secured on the backside wall portion 312, and a front end edge that extends in the upright direction and that is configured to correspond to an abutment surface 420 for providing an ergonomic support to the user's back when the user leans back thereagainst, a plurality of crossbars 422 which are secured on the front end edges of the support plates 421 and which are spaced apart from each other to define a plurality of rays passages between two adjacent ones of the crossbars 422, and a headrest plate 423 which is disposed above the crossbars 422.

The foot massaging units 5 are disposed in the bottom wall 33, and are spaced apart from each other in the transverse direction. Each of the foot massaging units 5 has a casing 51 which is disposed in a recess formed in the floor surface 331, and a massaging member 52 including four rollers 521 which are rollably mounted in the casing 51 and which are displaced from one another in the longitudinal direction. Each of the rollers 521 has massaging protrusions on an outer surface thereof for massaging a sole of the user's foot. In addition, each of the foot massaging units 5 further includes two ceramic tubes 53 which are disposed below the massaging member 52 so as to generate far infrared rays for far infrared sauna therapy of the sole of the user's foot, and two protecting grids 54 which are mounted between the massaging member 52 and the ceramic tubes 53.

In this embodiment, the rollers 521 of the massaging member

52 are disposed to be rolled by the user's foot, and are placed at the same horizontal level. However, the rollers 521 may also be provided to be rolled by a power source (not shown), and are arranged in a slanting manner from front to rear for comfortable resting of the user's foot thereon.

10 The first rays generating units 61 are mounted between the backside wall portion 312 and the backrest portion 42 of the seat 4. Each of the first rays generating units 61 is disposed in a space between two adjacent ones of the support plates 421, and includes a ceramic tube 611 which extends in the upright direction for emitting far infrared rays that pass through the rays passages to reach the user's back for far infrared sauna therapy, and a grid 612 which is disposed between the crossbars 422 and the ceramic tube 611 to shield the ceramic tube 611.

15 The second rays generating device 62 includes a casing 621 which is mounted on the backside wall portion 312 and under the seat portion 41, a ceramic tube 622 which is disposed in the casing 621 to generate far infrared rays for far infrared sauna therapy of the user's legs through the gaps among the bars 412 of the seat portion 41, and a grid 623 which is disposed to cover an opening of the casing 621 so as to prevent the user from coming into contact with the ceramic tubes 622.

20 The third rays generating devices 63 are mounted at the corners between the front and left wall portions 315, 313, and between the front and right wall portions 315, 314, respectively. Similarly, each of the third rays generating

devices 63 includes a casing 631, a ceramic tube 632 which is disposed in the casing 631 to generate far infrared rays for far infrared sauna therapy of the front part of the user's body, and a grid 633 which is disposed to cover an opening
5 of the casing 631 so as to prevent the user from coming into contact with the ceramic tubes 632.

It is noted that the arrangement and the number of the ceramic tubes 53,611,622,632 are not limited to that which is disclosed hereinabove.

10 The stereo sound system 71 includes a music player 711, such as a CD player, which is mounted on an outer surface of the front wall portion 315, and four speakers 712 which are connected electrically to the music player 711, are disposed in the inner space 30, and which are mounted at four
15 corners of the top wall 35. The lighting unit 72 is mounted on the top wall 35 in the inner space 30.

The control unit 73 is mounted on the front wall portion 315, and is disposed to be operated by the user to regulate the operation time of the rays generating units 61,62,63 and
20 the foot massaging units 5, respectively.

Furthermore, a book shelf 81 and a cup holder 82 may be secured on the surrounding wall 31. A plurality of wheels (not shown) may be mounted on the bottom wall 33 for facilitating transportation of the sauna bath apparatus.

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CLAIMS:

1. A radiation sauna bath apparatus comprising:

5 a housing including a surrounding wall which defines an inner space and an access opening to permit a user to access said inner space, and a door which is pivotally mounted on said surrounding wall to close said access opening, said surrounding wall including a backside wall portion which confronts and which is opposite to said door; and

10 a seat disposed in said inner space adjacent to said backside wall portion, and including a seat portion for the user to sit thereon, and a backrest portion which is formed with a plurality of rays passages extending therethrough, characterized by:

15 at least one first rays generating unit mounted between said backside wall portion and said backrest portion, and disposed to generate infrared rays which pass through said rays passages to reach a user's back for infrared sauna therapy.

20 2. The radiation sauna bath apparatus of Claim 1, characterized in that said backrest portion has an abutment surface which confronts forwardly and which is configured to provide an ergonomic support to the user's back when the user leans back thereagainst.

25 3. The radiation sauna bath apparatus of Claim 2, characterized in that said backrest portion includes a plurality of support plates which are spaced apart from each other in a transverse direction, and each of which

has a rear end edge that is secured on said backside wall portion, and a front end edge that extends in an upright direction and that is configured to correspond to said abutment surface, and a plurality of crossbars which are secured on said front end edges of said support plates and which are spaced apart from each other to define said rays passages.

4. The radiation sauna bath apparatus of Claim 3, characterized in that said first rays generating unit is mounted between two adjacent ones of said support plates.

5. The radiation sauna bath apparatus of Claim 4, characterized in that said first rays generating unit includes a ceramic tube which extends in the upright direction for emitting infrared rays, and a grid which is disposed between said crossbars and said ceramic tube to shield said ceramic tube.

6. The radiation sauna bath apparatus of Claim 1, characterized in that said housing further includes a bottom wall which is disposed on an end of said surrounding wall to cooperate with said surrounding wall to define said inner space and which has a floor surface, said seat portion being spaced apart from said floor surface in an upright direction.

7. The radiation sauna bath apparatus of Claim 6, characterized in that said seat portion includes a plurality of bars which are displaced from one another in a longitudinal direction by a plurality of gaps.

8. The radiation sauna bath apparatus of Claim 7, further characterized by a second rays generating device which is mounted on said backside wall portion and under said seat portion so as to generate infrared rays for infrared sauna therapy of the user's legs through said gaps.

9. The radiation sauna bath apparatus of Claim 1, further characterized by a stereo sound system for broadcasting sounds to said inner space.

10. The radiation sauna bath apparatus of Claim 9, characterized in that said stereo sound system includes an audio player which is mounted on an outer surface of said surrounding wall adjacent to said door, and four speakers which are electrically connected to said audio player, which are disposed in said inner space, and which are mounted on an inner surface of said surrounding wall.

11. The radiation sauna bath apparatus of Claim 6, further characterized by a massaging unit disposed in said bottom wall, and having a massaging member for massaging a sole of the user's foot.

12. The radiation sauna bath apparatus of Claim 11, characterized in that said foot massaging unit further includes at least one ceramic tube which is disposed below said massaging member and which generates infrared rays for infrared sauna therapy of the sole of the user's foot.