United States Patent

Durst

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[54] COLLAPSIBLE SAUNA

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[52] **U.S. Cl.** **4/160**
[51] **Int. Cl.** **A61h 33/06**
[58] **Field of Search** 4/160, 164, 163, 162; 52/71; 128/256, 367, 366, 365

[56] **References Cited**

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[57] **ABSTRACT**

The sauna includes a collapsible enclosure having front and rear walls joined by foldable sidewalls with upper and lower walls hingedly affixed to the rear wall for movement into horizontal positions to form a complete enclosure in the extended position. An adjustable heating element and water containing device associated therewith are affixed to the rear wall to provide the desired heat and humidity during operation.

1 Claims, 5 Drawing Figures

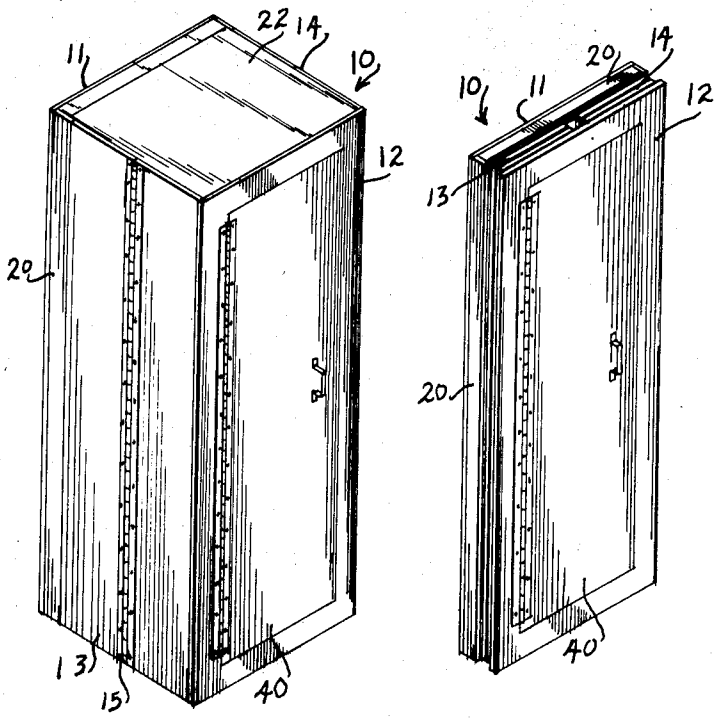


FIG_1

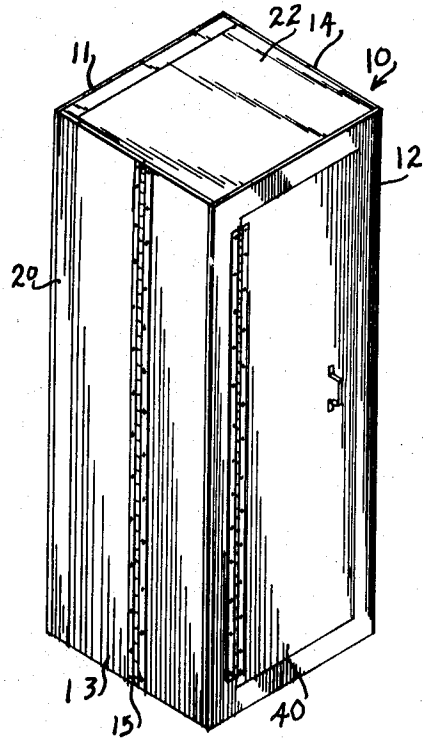


FIG_2

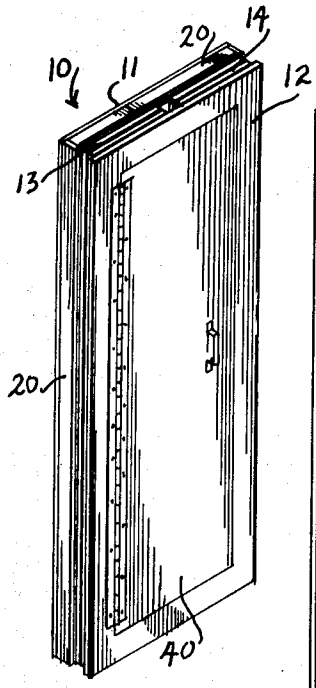


FIG_4

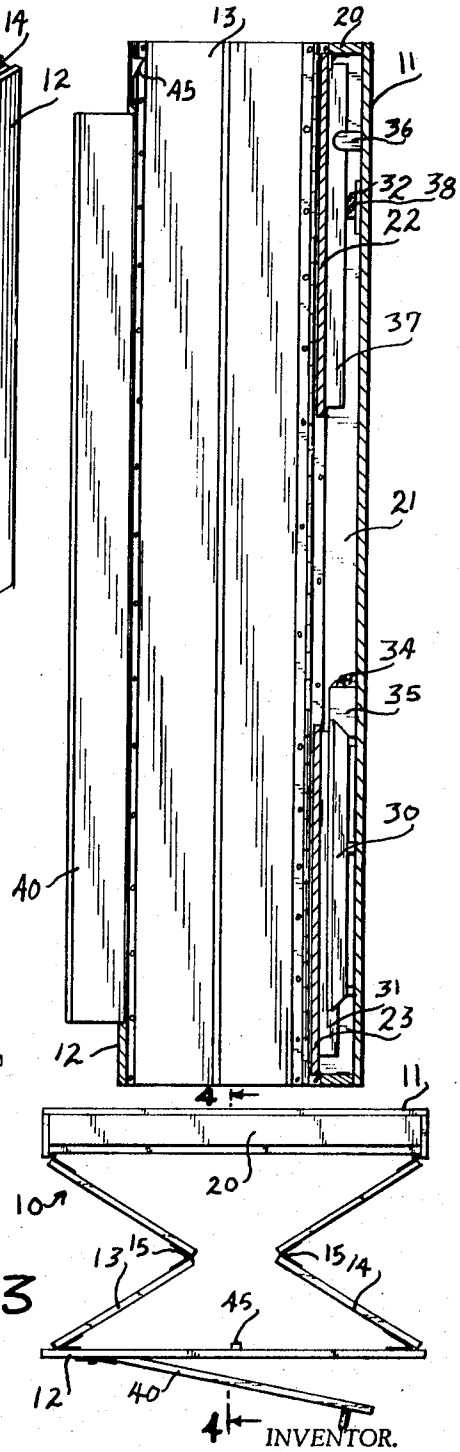


FIG_5

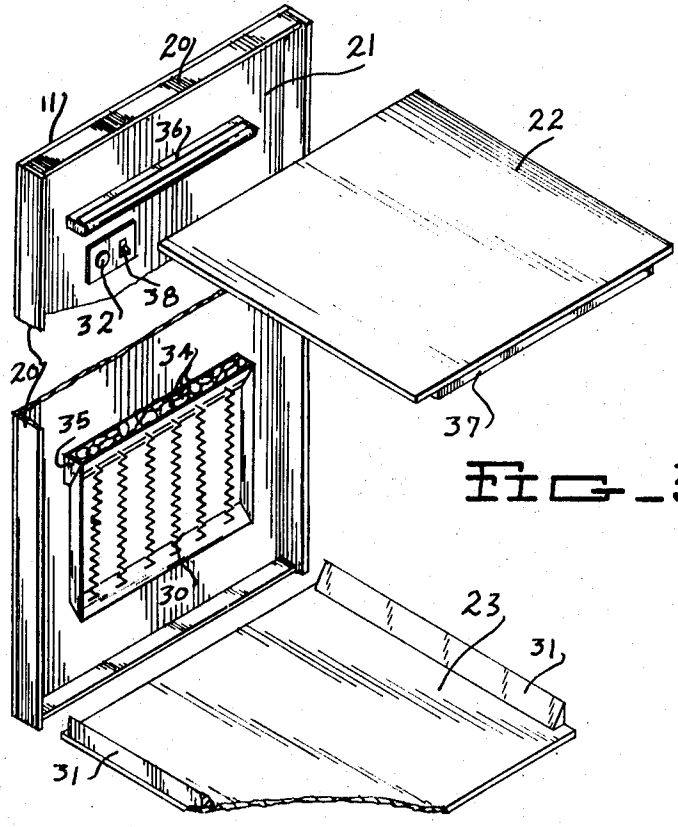


FIG_3

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COLLAPSIBLE SAUNA

BACKGROUND OF THE INVENTION

Field of the Invention

During recent years saunas which are bath houses for relatively low humidity, high heat type of baths, have become increasingly more popular. The sauna is utilized as a relaxing, body conditioning type activity, rather than cleansing.

Description of the Prior Art

All known prior art saunas are constructed as a separate room, useful only as a sauna. Because of the expense of providing a special room for the sauna and the amount of space utilized thereby, it is relatively difficult and expensive to provide a sauna in the average house.

SUMMARY OF THE INVENTION

The present invention pertains to a collapsible sauna including front and rear walls joined by foldable side walls with upper and lower walls hingedly attached thereto for completing an enclosure in an extended position and further including an adjustable heating element mounted within said enclosure and means associated therewith for receiving water to provide the desired humidity and temperature.

It is an object of the present invention to provide a new and improved collapsible sauna.

It is a further object of the present invention to provide a collapsible sauna which is easily installed in substantially any house, or other suitable structure, and which requires substantially no additional room in the collapsed position while providing a highly useful sauna in an extended position.

These and other objects of this invention will become apparent to those skilled in the art upon consideration of the accompanying specification, claims and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Referring to the drawings, wherein like characters indicate like parts throughout the figures:

FIG. 1 is a view in perspective of the collapsible sauna in an extended position;

FIG. 2 is a view in perspective of the collapsible sauna in a collapsed position;

FIG. 3 is an enlarged view in top plan of the collapsible sauna in a partially collapsed position;

FIG. 4 is a sectional view as seen from the line 4—4 in FIG. 3; and

FIG. 5 is a view in exploded perspective of portions of the structure of FIG. 1 illustrating construction details, portions thereof broken away and shown in section.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the figures, the numeral **10** generally designates a collapsible sauna having a rear wall **11**, a front wall **12** and two opposed side walls **13** and **14**. The side walls **13** and **14** are hingedly attached along the rear and front vertical edges thereof to the rear wall **11** and front wall **12**, respectively. Each of the side walls **13** and **14** is formed in two sections hingedly attached together to form a central pivotal joint **15**. The hingedly connected edges of each of the side walls **13** and **14** and the central pivotal joints **15** cooperate to allow the side walls to fold inwardly from an extended or enclosure-defining position to a collapsed position in which the rear and front walls **11** and **12** fold together in an accordionlike fashion. While a specific folding embodiment is illustrated, it should be understood that variations and modifications of this embodiment may be devised by those skilled in the art, such as for example forming a plurality of foldable joints in each of the side walls **13** and **14**.

The rear wall **11** is formed with a flange **20** around the edges thereof which extends inwardly toward the front wall **12** and forms a shallow cavity or depression **21** in the inwardly directed surface of the rear wall **11**. An upper wall **22** is hingedly affixed along the rear edge thereof to the upper edge of

the rear wall **11** for pivotal movement between a generally horizontal or extended position and a downwardly depending or collapsed position. The upper wall **22** is affixed to the rear wall **11** so as to be positioned within the depression **21** in the rear wall **11** when the upper wall **22** is in the collapsed position (as illustrated in FIG. **4**). A lower wall or floor **23** may optionally be included in the sauna **10**. The lower wall **23** is hingedly attached along its rear edge to the lower edge of the rear wall **11** for movements between an extended or generally horizontal position and a collapsed or upwardly folded position. When the lower wall **23** is in its upwardly folded position it lies within the depression **21**, as illustrated in FIG. **4**. Thus, in the collapsed position of the sauna **10** the upper and lower walls **22** and **23** fold into the depression **21** of the rear wall **11** and the two sections of each of the side walls **13** and **14** fold into a flat parallel orientation so that the entire structure requires very little space.

A heating element **30** is fixedly mounted to the inner surface of the rear wall **11** adjacent the lower end thereof. In this embodiment, the lower wall **23** has an outwardly extending stop **31** adjacent each edge thereof to prevent the lower wall **23** from damaging the heating element **30** in the collapsed position. It should be understood that stops might be affixed to the rear wall **11** adjacent the heating element **30** to prevent the lower wall **23** from damaging the heating element **30**. The heating element **30** is adapted to be connected to a suitable source of power, either permanently or through the use of a standard plug arrangement, depending upon the particular way in which the sauna **10** is mounted and used. A rheostat is connected in the energizing circuit of the heating element **30** and controllable through a knob **32**, mounted on the outwardly directed surface of the rear wall **11**, to control the amount of electrical power supplied to the heating element **30** and, thus, the amount of heat produced thereby. It should be understood that other types of heating elements might be utilized and the amount of heat supplied thereby can be varied through a variety of apparatus and methods to control the heat within the sauna **10**.

Mounted directly above the heating element **30** so as to be generally in contact with the frame thereof are water receiving means, which in this embodiment is an elongated trough **35**. The elongated trough **35** extend across the entire width of the heating element **30** and contains a plurality of heat retaining objects **34**, such as rocks, pieces of metal, or the like. The trough **35** may be permanently attached to a source of water or it may simply have a portable container associated therewith which is filled with water externally and brought into the sauna **10** for introducing the water into the trough **35**. A light **36** is mounted to the inwardly directed surface of the rear wall **11** and protected from damage by the upper wall **22** through stops **37**, attached to the lower surface of the upper wall **22**. The light **36** is connected to the suitable source of power through a switch **38**, affixed to the rear wall **11** adjacent the knob **31** for convenience.

A door **40** is hingedly mounted within an opening in the front wall **12** for outwardly opening movements. The door **40** is mounted for outwardly opening movements so that the sauna **10** can be conveniently moved to the extended position. In some instances, the collapsible sauna **10** will be permanently affixed to the wall of a structure, such as a house, and may actually be built into a wall so as to be flush with the surface of the wall in the collapsed position. In other installations, the rear wall **11** of the sauna **10** may simply be affixed to a wall so that the sauna **10** is collapsed to a position adjacent to the wall during non-use. In either case, the sauna **10** is moved to the extended position by opening the door **40** and moving the front wall **12** away from the rear wall **11** until the side walls **13** and **14** are in the extended position. If a lower wall **23** is included, the lower wall **23** is then pivoted downwardly to the horizontal position to provide a floor and aid in maintaining the sauna **10** in the extended position. The upper wall **22** is then pivoted upwardly to the horizontal position and locked in place. In the present embodiment a spring

biased detent **45** is provided in the front wall **12**. The detent **45** normally extends inwardly from the inner surface of the front wall **12** toward the rear wall **11** with the upper edge thereof forming a generally horizontal surface and the lower edge thereof forming a ramp or cam surface. As the upper wall **22** is pivoted upwardly the outermost edge thereof engages the cam surface of the detent **45** and urges the detent **45** into the front wall **12** so that the upper wall **22** can pivot upwardly beyond the detent **45**. As the upper wall **22** passes the detent **45** the spring urges the detent **45** outwardly to prevent the upper wall **22** from swinging downwardly out of the horizontal position.

With the sauna **10** in the extended position, a relatively tight enclosure is defined therein and an occupant simply adjusts the knob **31** to obtain the desired heat within the enclosure from the heating element **30**. During the time the heating element **30** is raising the heat within the sauna **10** or after the objects **34** are sufficiently hot the occupant may pour a small quantity of water over the objects to provide the desired humidity within the sauna **10**. In general, the occupant will only pour small amounts of water over the objects **34** periodically rather than filling the trough **35**.

Upon completing the sauna-type bath the occupant allows the sauna **10** to cool to a safe temperature whereupon he depresses the detent **45** manually and lowers the upper wall **22**. The lower wall **23** is then raised and the front wall **12** is moved toward the rear wall **11** in accordian-like fashion to collapse the entire sauna **10** into a convenient size for storage.

Thus, a collapsible sauna is disclosed which is relatively inexpensive to construct and which requires very little room, since it can be conveniently collapsed and stored. While I have shown and described a specific embodiment of this invention, further modifications and improvements will occur to those skilled in the art. I desire it to be understood, therefore, that this invention is not limited to the particular form shown and I intend in the appended claims to cover all modifications which do not depart from the spirit and scope of this invention.

What is claimed is:

A collapsible sauna comprising:

a. vertically extending, rigid front and rear walls each having an upper, a lower and two side edges, said rear wall having top, bottom and side flanges around the edges thereof extending toward said front wall to form with said rear wall a boxlike structure;

b. oppositely disposed foldable side walls pivotally affixed to the side edges of said front wall and to the edges of said side flanges, said side walls each comprising two hingedly connected portions and being inwardly foldable for allowing movement between an extended position wherein said side walls are each coplanar to define an enclosure and a collapsed position wherein said front and rear walls move adjacent each other;

c. a rigid upper wall hingedly affixed to said top flange for movement between an extended position wherein said upper wall completes the enclosure and a collapsed position within the boxlike structure;

d. a door hingedly attached to an opening in said front wall;

e. an adjustable heating element operatively mounted to said rear wall within said boxlike structure;

f. means associated with said heating element adapted to receive water therein for providing a humid, relatively high temperature within the enclosure; and

g. a rigid lower wall hingedly affixed to said bottom flange for movement between an extended floor position and a collapsed position within the boxlike structure.

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