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AT SEATTLE
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WESTERN DISTRICT OF WASHINGTON
DEPUTY



09-CV-05223-CMP

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON AT SEATTLE

WARM BROTHERS, INC
a Washington Corporation,

Plaintiff,

v.

NORTH EAST HARDWOOD FLOORING, Inc.,
dba NORTH EAST RADIANT TECHNOLOGIES

and

PEXHEAT.COM, L.L.C.

Defendants

CV9 5223 RBL

Case No.

**COMPLAINT FOR PATENT
INFRINGEMENT**

Plaintiff Warm Brothers, Inc (Warm Brothers) alleges for its Complaint as follows:

NATURE OF THE CASE

1. This is an action for patent infringement arising from defendant North East Radiant Technologies' ("North East") unlawful making of thermal heating boards which infringe a United States Patent owned by Warm Brothers, and both defendants' unlawful selling, offering to sell and using such infringing products.

COMPLAINT, PATENT
INFRINGEMENT 1

Law Office of Richard L. Goff
1000 Second Av. Ste. 3310
Seattle WA 98104
Tel. (206)-838-1974

SEA 25503 SALS

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1 2. The allegations of this complaint that are made on “information and belief” are
2 allegations that plaintiff and its counsel are informed and believe, after reasonable
3 investigation, will likely have evidentiary support after reasonable opportunity for further
4 investigation or discovery.
5

6 JURISDICTION AND VENUE

7
8 3. This Court has jurisdiction under 28 U.S.C. § 1338(a) (patent case). The Court has
9 personal jurisdiction over the defendants because, on information and belief, defendants have
10 committed infringing acts in this district which include (without limitation and without
11 prejudice to presenting additional facts that may be ascertained through discovery): acting in
12 consort, North East and PEXHEAT.COM, L.L.C. (“PEXHEAT”), have offered for sale in this
13 district and shipment into this district products that infringe the subject Patent, with North
14 East making such offers, in part, through PEXHEAT as its authorized intermediary, and also,
15 similarly in consort, defendants have used said infringing products by providing samples of
16 them in this district; and this action arises, in part, from such offering to sell and using of
17 infringing products here. Venue is proper under 28 U.S.C. §§ 1391(c) and 1400(b) because
18 defendants are, respectively, a corporation and limited liability company that reside in this
19 district because they are subject to personal jurisdiction here.
20
21

22 THE PARTIES

23 4. Plaintiff Warm Brothers is a Washington Corporation with a corporate business office
24 located on Bainbridge Island, Washington. It owns the patent in suit, U.S. Patent No.
25 6,533,185 (“the Patent”). It has been and continues to be engaged in selling products covered
26 by the Patent and in licensing the Patent to manufacturers who manufacture hydronic radiant
27

1 heating products and systems covered by the Patent, and to distributors who sell such products
2 to purchasers located in various parts of the United States, including in this District.

3 5. On information and belief, Defendant North East is a corporation doing business as
4 North East Radiant Technologies, and is engaged in the manufacture, sale and offering for sale
5 of hydronic radiant heating products and systems; and defendant PEXHEAT is a limited
6 liability company engaged in the sale, offering for sale and distribution of hydronic radiant
7 heating products and systems.
8

9 **ADDITIONAL FACTS**

10 6. On March 18, 2003, United States Patent No. 6, 533,185 (“the ‘185 Patent”) was duly
11 and legally issued to inventor Morgan Muir by the United States Patent and Trademark Office
12 (“USPTO”). The ‘185 Patent was based on Application No. 09/907,013 filed with the USPTO
13 July 17, 2001, which Application was a continuation in part of Application No. 09/451/324,
14 filed November 30, 1999 and eventually abandoned. Application No. 09/451,324 contained
15 specific reference to Provisional Application No. 60/110,693, filed with the USPTO December
16 3, 1998, which also named Morgan Muir as inventor. The invention disclosed in the ‘185
17 Patent was disclosed in the Provisional Application and the ensuing Applications identified
18 above. By an assignment recorded in the USPTO on June 6, 2003, inventor Muir’s interest in
19 the ‘185 patent was assigned to Warm Brothers.
20

21 7. A true and accurate copy of the ‘185 Patent is attached hereto as Exhibit A. In
22 exemplary embodiments, the ‘185 Patent’ is particularly directed to improved thermal heating
23 modules for application of hydronic radiant heating in new and existing construction.
24

25 8. On information and belief, defendant North East has been and is making, using, selling
26 and offering for sale hydronic radiant heating products and systems comprising the elements of
27 one or more claims of the ‘185 Patent; and defendant PEXHEAT has been and is selling,
28

1 offering for sale and using hydronic heating products and systems, made by defendant
2 Northeast, which infringe one or more claims of the Patent.

3 9. On information and belief, North East has continued to make, sell and offer for sale
4 such infringing products with knowledge of the '185 Patent and Warm Brothers' rights therein
5 and after North East was notified by Warm Brothers of such infringement.
6

7 **CLAIM FOR RELIEF**

8 **Infringement of United States Patent No. 6,533,185**

9 10 Warm Brothers realleges paragraphs 1 through 9 as if fully set forth herein.

10 11. Warm Brothers is the owner, including the right to sue for infringement, of United
11 States patent No. 6,533,185 ("the '185 Patent").

12 12. Defendants have infringed, and are infringing, the '185 Patent, and inducing others to
13 infringe the Patent.
14

15 13. On information and belief, North East's infringement of the '185 Patent has been
16 intentional and deliberate, and constitutes willful infringement.

17 14. Warm Brothers has suffered and is suffering significant irreparable injury from such
18 acts of infringement, for which monetary damages are inadequate to compensate, and will
19 continue to suffer such injury unless defendants are enjoined from making, using, selling or
20 offering for sale products and systems infringing the '185 Patent.
21

22 15. Warm Brothers has sustained and will continue to sustain substantial damages caused
23 by such acts of infringement. These damages include, without limitation, royalties and profits
24 lost to Warm Brothers because of (1) loss of and harm to Warm Brothers' licensing
25 opportunities and revenues, (2) lost sales of patented products by Warm Brothers and its
26 licensees and/or lower prices on such sales, and (3) harm to other opportunities of Warm
27

1 Brothers for commercializing the invention of the patent, all resulting from defendants' East's
2 infringements.


3 **PRAYER FOR RELIEF**

4 WHEREFORE, Warm Brothers prays for relief against defendants, as follows:

- 5 1. For a preliminary and permanent injunction prohibiting defendants, including their
- 6 directors, officers, employees, agents, affiliates and/or any others in concert with
- 7 either of them, from infringing the '185 Patent.
- 8
- 9 2. For recovery by Warm Brothers of all damages Warm Brothers has suffered as a
- 10 result of defendants' infringements, in such amounts as may be proved at trial.
- 11
- 12 3. For recovery of prejudgment interest on the monetary damages awarded to Warm
- 13 Brothers, pursuant to 35 U.S.C. § 284, and/or as otherwise permitted by law.
- 14
- 15 4. For recovery of treble damages pursuant to 35 U.S.C. § 284.
- 16
- 17 5. For recovery of Warm Brothers' reasonable attorneys' fees, pursuant to 35 U.S.C. §
- 18 285.
- 19
- 20 6. For such further relief as the Court deems just and equitable.
- 21
- 22 7. That such further relief include an order to defendants to deliver up for destruction
- 23 any and all of its products that infringe any claim of the '185 Patent.

24 DATED this 17th day of April, 2009

25 Respectfully submitted,


26 By 
27 Richard L. Goff, WSBA #23158
28 Attorney for Plaintiff

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2 1000 Second Avenue, Suite 3310
3 Seattle, WA 98104
4 Telephone: (206) 838-1974
5 Facsimile: (206) 621-6443
6 E-mail: rgoff@rgofflaw.com

7 DEMAND FOR JURY TRIAL

8 Plaintiff Warm Brothers, Inc. hereby demands a jury trial of all claims and issues on which
9 it is entitled herein.

10 DATED this 17th day of April, 2009

11 

12 Richard L. Goff, WSBA #23138
13 Attorney for Warm Brothers, Inc.

EXHIBIT A

to Complaint in Warm Brothers, Inc. v. North East Hardwood Flooring, etc.
filed April 17, 2009 in Western District of Washington

(Exhibit is a copy of U.S. Patent No. 6,533,185)



US006533185B1

(12) **United States Patent**
Muir

(10) **Patent No.:** **US 6,533,185 B1**
(45) **Date of Patent:** **Mar. 18, 2003**

(54) **THERMAL HEATING BOARD**

(76) **Inventor:** **Morgan Muir**, 1051 Folger, Berkley, CA (US) 94710

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/907,013**

(22) **Filed:** **Jul. 17, 2001**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/451,324, filed on Nov. 30, 1999, now abandoned.

(60) Provisional application No. 60/110,693, filed on Dec. 3, 1998.

(51) **Int. Cl.⁷** **F24D 5/10**

(52) **U.S. Cl.** **237/69**

(58) **Field of Search** 237/69, 43; 454/185; 165/56, 49, 171

(56) **References Cited**

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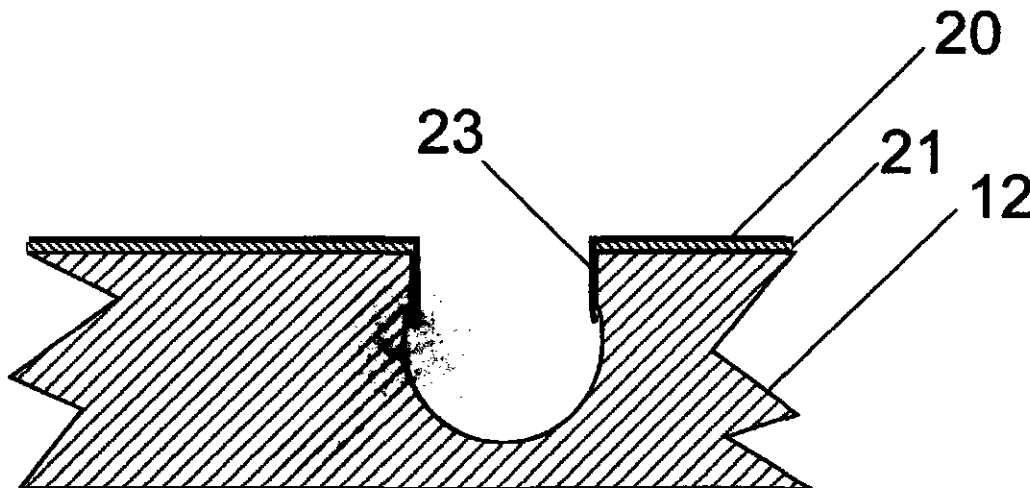
Primary Examiner—Derek Boles

(74) *Attorney, Agent, or Firm*—Graybeal Jackson Haley LLP

(57) **ABSTRACT**

An improved hydronic radiant heating system comprising a nonstructural board having a recess formed in one surface of said board, a pipe located within said recess, and, if desired, a film of metal covering said surface of said board and having a thickness proportional to the thermal properties of said board to provide desired overall thermal characteristics for said heating system.

18 Claims, 4 Drawing Sheets



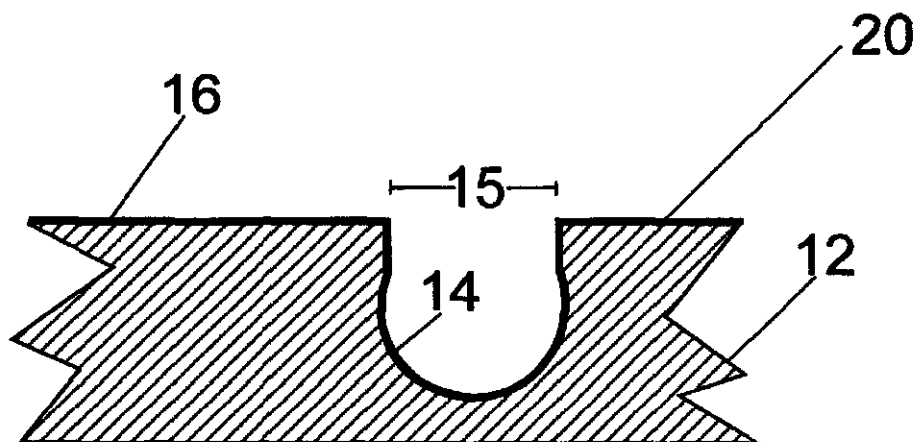


FIG. 1a

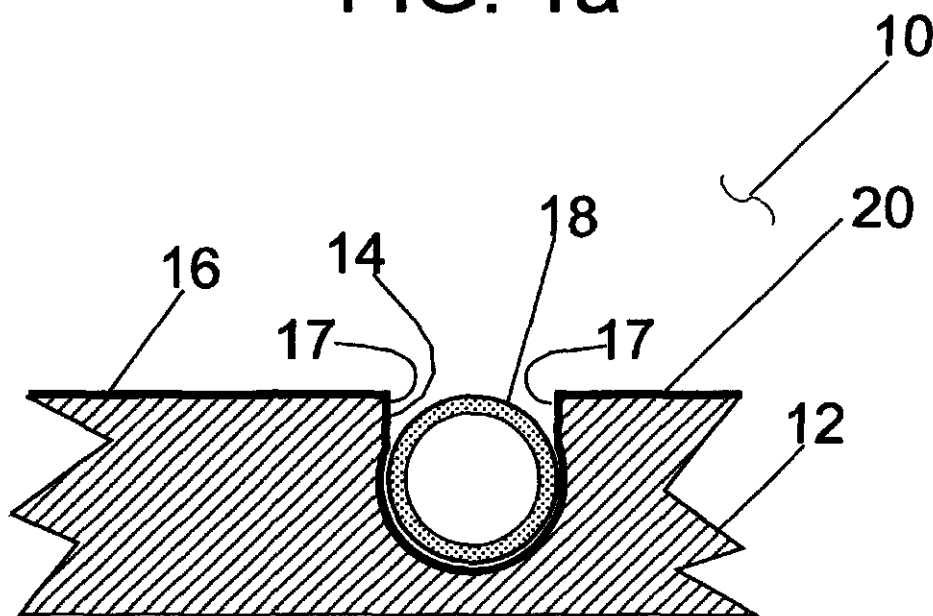


FIG. 1b

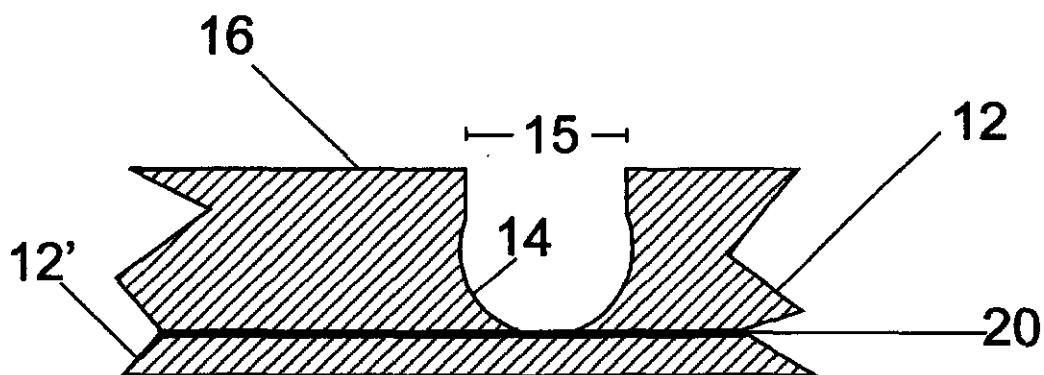


FIG. 2a

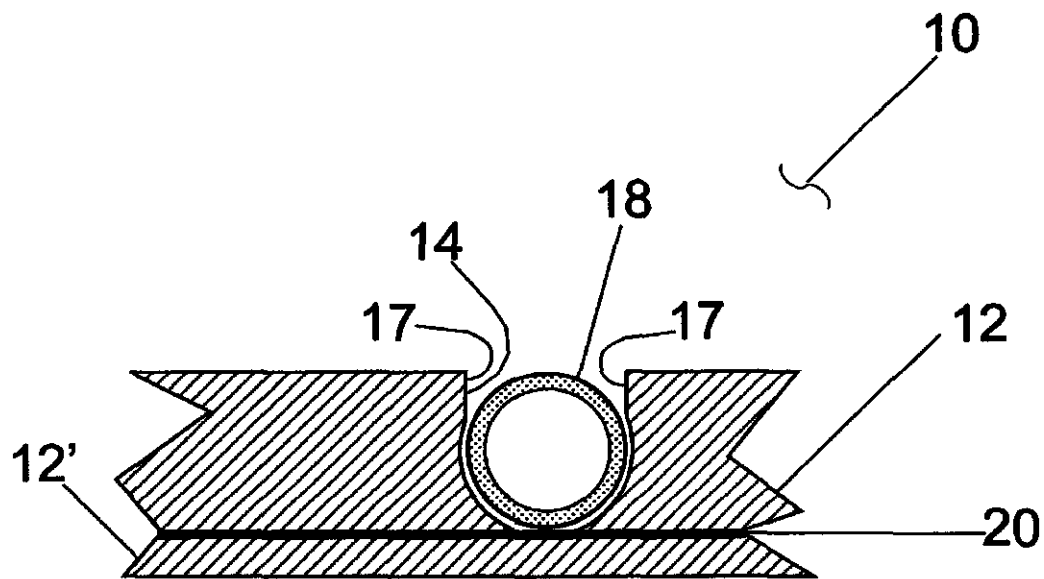


FIG. 2b

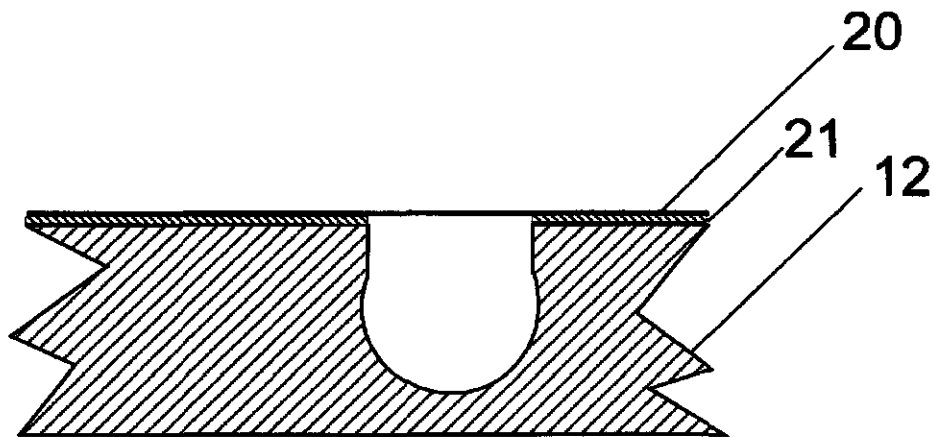


FIG. 3a

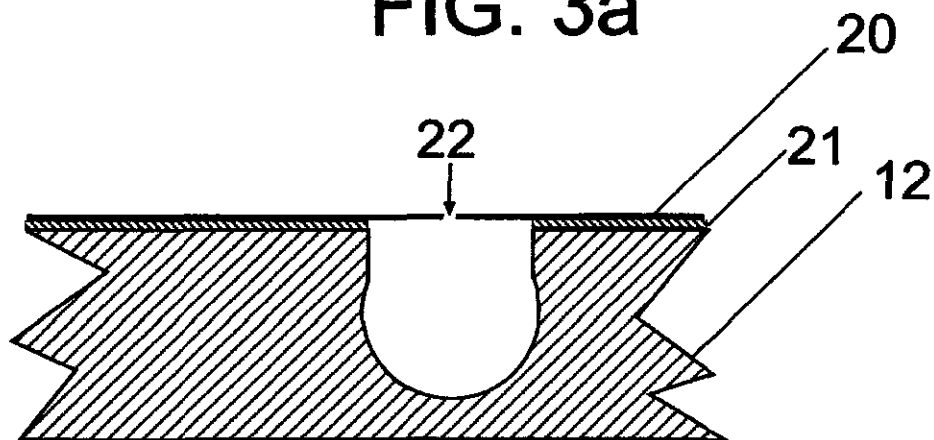


FIG. 3b

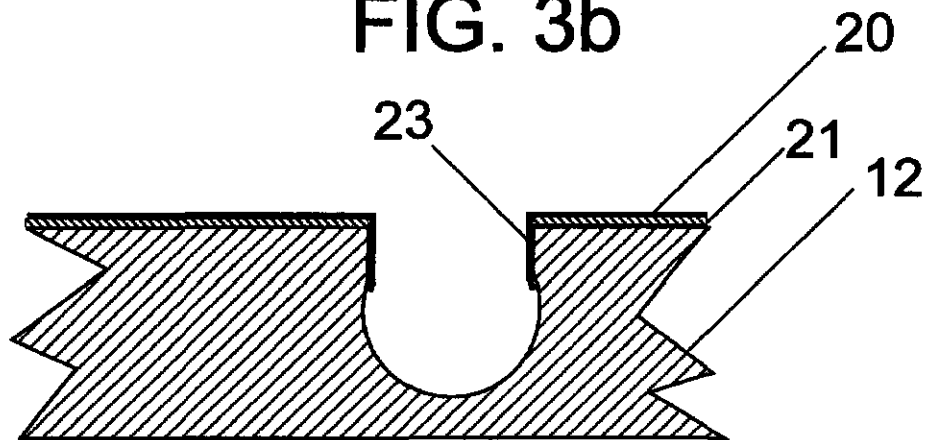


FIG. 3c

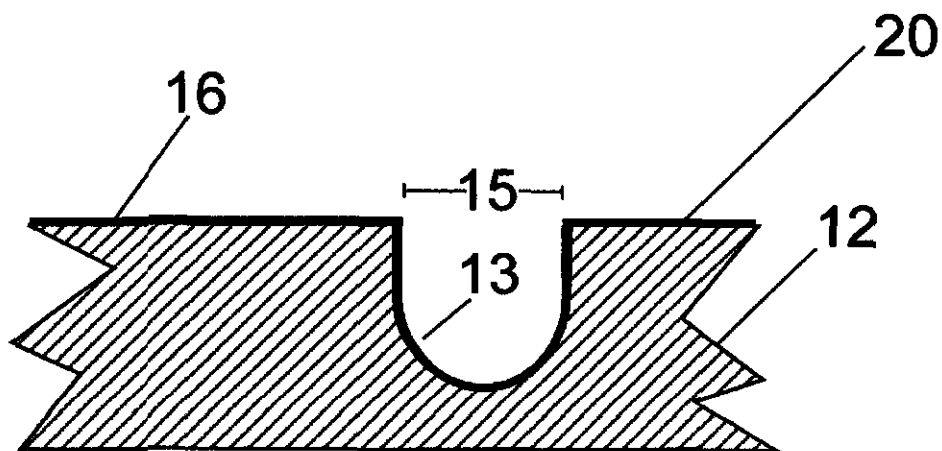


FIG. 4a

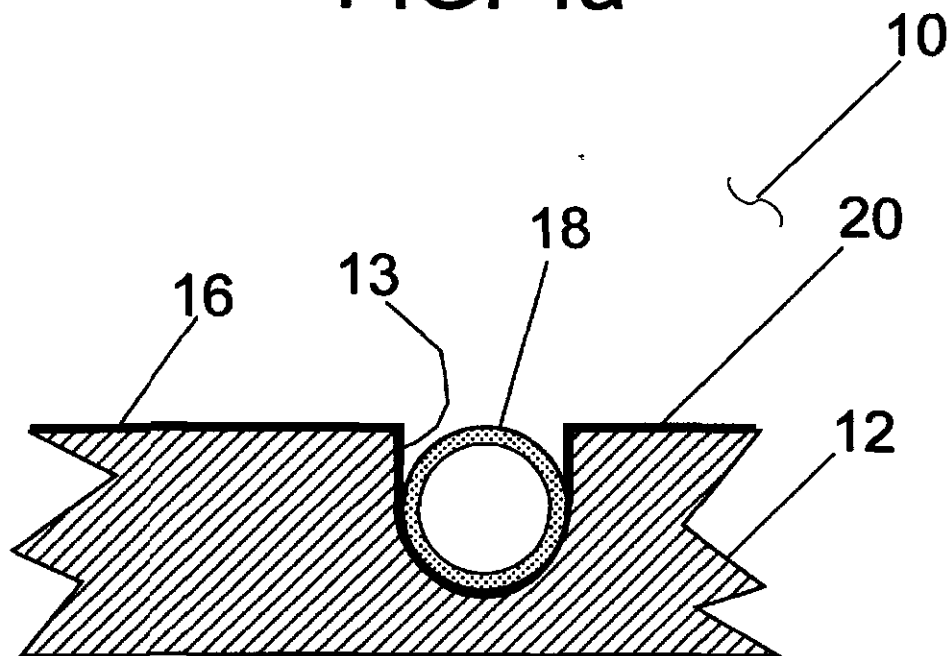


FIG. 4b

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THERMAL HEATING BOARD**RELATED CASES**

This invention is described in my Provisional Patent Application, Ser. No. 60/110,693, filed Dec. 3, 1998 and now expired and is a continuation in part of Utility Patent Application, Ser. No. 09/451,324, filed Nov. 30, 1999 and now abandoned.

FIELD OF INVENTION

This invention relates to construction material and is particularly directed to improved thermal heating modules for application of hydronic radiant heating in new and existing construction.

PRIOR ART

The concept of heating an area by heating the floor surface has been known since Roman times. In more recent times, such systems were formed by metal or plastic pipes embedded in concrete slabs or attached under a subfloor or sandwiched in between layers of flooring thereto by various means and by laying flooring or subflooring on top of these. More recently it has been proposed to have combinations of boards and pipes in various configurations installed either above or below a subfloor as well as integrated structural subfloor systems with an integral metal plate. However, these systems have been found to be relatively inefficient in transferring heat to desired area or have been too expensive to install or have been dimensionally too thick to be useful in retrofit applications or have had sound transmission problems due to thermal contraction and expansion of poorly connected component parts, or use uncommon building practices and sequencing of installation and have been somewhat useful to new construction. Also, inserting the pipe into the grooves of the prior art boards has been unsatisfactory. Frequently, the pipe would come loose and pop out of place, causing problems with laying overflooring and the like. Thus, none of the prior art thermal heating boards have been entirely satisfactory.

BRIEF SUMMARY AND OBJECTS OF INVENTION

These disadvantages of the prior art are overcome with the present invention and an improved hydronic radiant heating system is provided which is simple and inexpensive to install and which can be applied equally well to new or existing construction and to floors, walls or ceilings, while providing efficient heating to the desired area and ensuring that the pipes are retained within the system.

These advantages of the present invention are preferably attained by providing an improved hydronic radiant heating system comprising a non-structural board formed of thermally conductive material and having at least one undercut recess formed in the upper surface of said board, a pipe releasably retained within said undercut recess, and a film of metal covering the upper surface of said board.

Accordingly, it is an object of the present invention to provide an improved hydronic radiant heating system.

Another object of the present invention is to provide an improved hydronic radiant heating system which is simple and inexpensive to install.

An additional object of the present invention is to provide an improved hydronic radiant heating system which can be applied equally well to new or existing construction, while providing efficient heating to the desired area.

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A further object of the present invention is to provide an improved hydronic radiant heating system comprising a simple board rather than a complex assembly of parts.

An additional object of the present invention is to provide an improved hydronic radiant heating system which can be applied to floors, walls and ceilings.

Another object of the present invention is to provide an improved hydronic radiant heating system comprising a board that lends itself to modules which can easily be laid out and installed.

An additional object of the present invention is to provide an improved hydronic radiant heating system that lends itself to mass production with associated cost savings.

A further object of the present invention is to provide an improved hydronic radiant heating system comprising a board having a thermally conductive coating whose thickness can be varied to compensate for the conductivity of the board to achieve a desired overall thermal performance.

An additional object of the present invention is to provide an improved hydronic radiant heating system comprising a board having a groove with undercut grooves for releasably retaining a pipe within said groove.

A specific object of the present invention is to provide an improved hydronic radiant heating system comprising a nonstructural board formed of thermally conductive material having an undercut recess formed in one surface of said board and having a pipe releasably retained within said recess.

Another specific object of the present invention is to provide an improved hydronic radiant heating system comprising a nonstructural board having an undercut recess formed in one surface of said board, a pipe releasably retained within said recess, and a coat of thermally conductive material applied to said surface of said board having a thickness sufficient to compensate for the thermal characteristics of said board to provide desired overall thermal performance for said system.

These and other objects and features of the present invention will be apparent from the following detailed description, taken with reference to the figures of the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1a is a vertical section through a floor heating system embodying the present invention;

FIG. 1b is a view, similar to that of FIG. 1a, showing a pipe inserted into the recess of the heating system of FIG. 1;

FIG. 2a is a view, similar to that of FIG. 1a, showing an alternative form of the floor heating system of FIG. 1;

FIG. 2b is a view, similar to that of FIG. 2a, showing a pipe inserted into the heating system of FIG. 2a;

FIG. 3a is a view, similar to that of FIG. 1a, showing a layer of metal foil attached to the surface of a board similar to that of FIG. 1a;

FIG. 3b is a view, similar to that of FIG. 3a, showing the metal foil having been slit;

FIG. 3c is a view, similar to that of FIG. 3a, showing the metal foil pressed into the recess of the board of FIG. 3a;

FIG. 4a is a view, similar to that of FIG. 1, showing an alternative form of the heating system of FIG. 1; and

FIG. 4b is a view, similar to that of FIG. 4a, showing a pipe installed in the heating system of FIG. 4a.

DETAILED DESCRIPTION OF THE INVENTION

In the form of the present invention chosen for purposes of illustration in the drawing, FIG. 1a shows a hydronic

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radiant heating system, indicated generally at 10, comprising a supporting board 12 having a recess 14 formed in the upper surface 16 of the board 12 and having a pipe 18 located within the recess 14, with a coat 20 of thermally conductive material, such as metal spray, metal foil or the like deposited on the upper surface 16 of the board 12. As seen in FIG. 1b, the recess 14 is undercut, providing an opening 15 with flanges 17 which overlie the pipe 18 after the pipe 18 has been inserted into the recess 14. The pipe 18 sufficiently resilient to allow the pipe 18 to be inserted through the opening 15 and to snap back to overlie the pipe 18, as seen in FIG. 1b. This serves to releasably retain the pipe 18 and ensures that the pipe 18 cannot become dislodged or otherwise displaced. The supporting board 12 may be a wooden board or, if desired, may be plywood, fiberboard, recycled material or other suitable supporting material.

In use, the hydronic radiant heating system 10 is applied over a suitable subfloor over wall framing, under ceiling framing or over a concrete slab or over an existing floor, then the pipe 18 is forced into recess 14 so that flanges 17 overlie and releasably retain the pipe 18 and the finished floor, wall or ceiling goods are installed over the hydronic radiant heating system 10. (In the case of its use for radiant hydronic ceiling heat the finished goods are installed below the board 12) Heated water or the like is circulated through the pipe 18 and transfers heat by conductivity and radiation through the new floor to the desired area. The thermally conductive coat 20 can be varied to compensate for the varying conductive qualities of the supporting board 12. Thus, the thickness of the thermally conductive coat 20 could vary proportionally to the thermal properties of the supporting board 12. (More conductive board would have a thinner coating, while less conductive board would have a thicker coating.) The thermally conductive coat 20 may be applied to the upper surface 16 of the supporting board 12 by spraying or by applying one or more layers of metal foil or the like. Thus, the thickness of the coat 20 can be extremely thin, yet serves to effectively and efficiently transfer heat from the pipe 18 to the coat 20 and, hence, to the desired area.

FIGS. 2a and 2b show an alternative form of the heating system of FIG. 1a wherein two supporting boards 12 and 12' are provided and the conductive coating 20 is applied between the boards 12 and 12'. This would allow the components to be manufactured separately and, subsequently, to be laminated together at a convenient time and location.

FIG. 3a shows the board 12 having a layer of metal foil 20 attached to the board 12 by suitable means, such as adhesive 21, and overlying the recess 14.

Obviously, if desired, the metal layer 20 could be applied by plating or other well known means. After the metal layer 20 has been attached to the board 12, the metal layer is slit, as seen at 22 in FIG. 3b, and the portions of the metal layer 20 are then pressed into the recess 14, as seen at 23 in FIG. 3c. This provides a very simple and inexpensive means of manufacturing the board of FIG. 1a.

FIG. 4a shows an alternative form of the board 12 having the surface 13 of the recess 14 serrated or otherwise prepared to frictionally retain the pipe 18 when the pipe 18 is forcefully inserted into the recess 14.

Obviously, numerous variations and modifications can be made without departing from the spirit of the present invention. Therefore, it should be clearly understood that the form of the present invention described above and shown in the accompanying drawing is illustrative only and is not intended to limit the scope of the present invention.

4

What is claimed is:

1. A board for hydronic radiant heating, comprising a floor supportive board of low elasticity having a surface with at least one groove in the surface for receiving a hydronic pipe, the surface covered, at least in part, by a heat conductive layer of metal foil.

2. The board of claim 1 wherein the layer of metal foil is adhered to the surface with an adhesive.

3. The board of claim 1 wherein the groove has two sides and, at one or both sides of the groove, the layer of metal foil is bent into the groove.

4. The board of claim 1 further comprising a second layer of metal foil adhered to the layer of metal foil.

5. The board of claim 1 wherein the groove has a surface and the layer of metal foil covers substantially all of the surface of the groove.

6. A method for making a set of modular boards having uniform length, width, and edges for assembling edge to edge for hydronic radiant heating, each board having at least one groove for receiving a hydronic pipe, the method comprising cutting into a surface of the board at least one groove which is undercut on at least one side of the groove to releasably retain the pipe, the groove extending continuously from an edge of the board to an edge of the board.

7. The method of claim 6 wherein the groove forms a recess in the surface of the board and a layer of metal is adhered to the surface, extending part way into the recess but not more than about half way into the recess such that the undercut is formed, at least in part, by at least one edge of the layer of metal.

8. The method of claim 7 wherein the layer of metal is adhered to the board, spanning the groove, after the groove is cut, and then the layer is cut along a length of the groove to form two edges of the layer which are then bent into the groove.

9. The method of claim 6 wherein the board is comprised of fiberboard.

10. The method of claim 6 wherein the layer of metal is foil.

11. The board for hydronic radiant heating made by the method of claim 6.

12. The board for hydronic radiant heating made by the method of claim 7.

13. The board for hydronic radiant heating made by the method of claim 8.

14. The board for hydronic radiant heating made by the method of claim 9.

15. A set of modular boards for hydronic radiant heating, comprising a plurality of boards having uniform length, width, and edges for assembling edge to edge, each board made of a continuous material having a thickness and at least one groove in the board for receiving a hydronic pipe, wherein the at least one groove extends through substantially more than half the thickness of the board but not entirely through the board.

16. The set of boards of claim 15 wherein each board is comprised of fiberboard.

17. The set of boards of claim 15 wherein the at least one groove is formed in a surface of the board and a layer of metal foil is adhered to the surface.

18. The set of boards of claim 15 wherein the groove has two sides and at least one side of the groove is serrated to frictionally retain the pipe.

* * * * *

CV9 5223

AO 120 (Rev. 3/04)

<p>TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450</p>	<p>REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK</p>
---	---

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Western District of Washington on the following Patents or Trademarks:

DOCKET NO.	DATE FILED 4/17/2009	U.S. DISTRICT COURT Western District of Washington
PLAINTIFF WARM BROTHERS, INC., a Washington Corporation		DEFENDANT NORTH EAST HARDWOOD FLOORING, INC. dba NORTH EAST RADIANT TECHNOLOGOIES; and PEXHEAT.COM, L.L.C.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 U.S. # 6,533,185		WARM BROTHERS, INC.
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY	<input checked="" type="checkbox"/> Amendment <input checked="" type="checkbox"/> Answer <input checked="" type="checkbox"/> Cross Bill <input checked="" type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy