(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 664 979 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
07.01.1998 Bulletin 1998/02

(51) Int. Cl.[6]: **A47B 63/00**, A47B 96/20

(21) Application number: **95630006.5**

(22) Date of filing: **30.01.1995**

(54) Tall book display rack

Schaugestell für grosse Bücher

Présentoir pour gros livres

(84) Designated Contracting States:
DE FR GB

(30) Priority: **31.01.1994 US 190621**

(43) Date of publication of application:
02.08.1995 Bulletin 1995/31

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Description

Background of the Invention

This invention relates to book racks, and, in particular, book or display racks made of lightweight materials.

Book racks are found in many places, including nurseries. Books found in nurseries typically are tall and have colorful colors. Unlike novels, books meant for toddlers are thin. Thus, book racks for nurseries must be designed to display the front, rather than the side, of the book, so that the toddlers can recognize the books. Further, the book rack should make as much as possible of the book cover visible.

Summary of the Invention

One object of the present invention is to provide a book rack for use in nurseries.

Another object is to provide such a book rack which will display the cover of the books contained therein.

Another object is to provide such a book rack which will display as much as possible of the book cover.

Another object is to provide such a book rack which may readily be used by toddlers.

These and other objects will be come apparent to those skilled in the art in light of the following disclosure and accompanying drawings.

In accordance with the invention, as defined in independent claims 1 and 10 with preferred embodiments defined in dependent claims 2 to 9 and 11 to 17, a book rack for use in nurseries is provided. The book rack has two side walls and a rack extending between the side walls. The side walls each include a core made of a lightweight structural material, coatings covering inner and outer surfaces of the core, and an edge bead covering an edge of the core. The material which makes up the core is preferably styrofoam, foamed urethane, corrugated paperboard, or honeycombed paperboard. Other light weight materials could also be used. The coating is preferably a formica coating, but again, other materials, such as plastics, which are easily washable can also be used.

The rack means is made of a single sheet of material formed generally as a wave defining a plurality of valleys in which books can be placed. The book rack is intended for use in a nursery, and thus the valleys can be narrow, so that the face of the books, rather than the spines, will be visible. Each valley has a forward wall and a rear wall. The sheet is formed such that the a valley is positioned above and behind a preceding valley. The sheet which makes up the rack is preferably clear or substantially transparent. It may be made of a polymer, such as a plastic or acrylic. The side walls have grooves formed therein in which the rack is received. Preferably, the rack is glued into, or otherwise secured in, the grooves. The rack will then be the only piece holding the two side walls together.

The side wall coverings preferably extend beyond the core to define a channel. The edge bead includes a foot portion and an exposed bead portion. The foot portion is received in the channel, for example, by a force fit. The edge bead may be made of extruded plastic or rubber. It is preferably hollow and has an inner wall separating the foot portion from the bead portion.

Brief Description of the Drawings

FIG. 1 is a perspective view of a book rack of the present invention;

FIG. 2 is a top plan view of the book rack;

FIG. 3 is a side elevational view of the book rack;

FIG. 4 is a front elevational view of the book rack;

FIG. 5 is a bottom plan view of the book rack;

FIG. 6 is a rear elevational view of the book rack;

FIG. 7 is a side elevational view of a side wall of the book rack, partly broken away to show the construction of the side wall;

FIG. 8 is an elevational view of the side of the book rack with a rack secured thereto;

FIG. 9 is an enlarged sectional view of the side wall taken along line 9--9 of FIG. 7; and

FIG. 10 is an enlarged sectional view of the wall construction taken along line 10--10 of FIG. 9.

Description of the Preferred Embodiment

Referring now to the Figure 1, reference numeral 1 indicates one illustrative embodiment of a book rack of the present invention. Book rack 1 includes two side walls 3 and a rack 5 extending between the side walls. The side walls have a bottom edge 3a, a front edge 3b, a back edge 3c taller than the front edge, and a sloped top edge 3d. Preferably all the corners of the side walls 3 are rounded off, so that no sharp corners exist. The shape and sizing of the walls give the book rack stability and provide for easy access to books contained therein by toddlers.

As seen in FIGS. 7-10, the side walls 3 include a core 7 made of a light weight structural material. Core 7 is preferably made of a corrugated or honey-combed paperboard which may be resin treated to add further stiffness to the core. The core may also be made of materials such as styrofoam, foamed urethane, or other such materials. Core 7 has inner and outer surfaces 9 and 11, respectively, and an edge surface 13. The inner and outer surfaces 9 and 11 are covered with a coating or liner 15, which is glued or otherwise secured to the surfaces of the core. Coating 15 is preferably a formica coating or some other washable coating which may be easily cleaned. For example, a plastic could be used for the coating.

As seen in FIG. 10, the coating extends beyond the edge 13 of core 7 to define a channel 17. An edge bead 19 is received in the channel to cover the core edge 13. In this manner, the core 7 is completely encased by the

coatings 17 and the edge bead 19. Edge bead 19 includes a foot portion 21 which is received in channel 17 and a head or bead portion 23 which is exposed. The head portion preferably is semi-circular in cross-section, as seen in FIG. 10. The edge bead 19 is preferably hollow and has a wall 25 separating the foot portion from the bead portion. Bead 19 is preferably formed as an extruded plastic polymer, such as vinyl, or a hard or semi-hard rubber.

Rack 5 is formed from a single sheet of material, preferably a plastic or acrylic that is substantially clear. The sheet is formed as a wave, as seen in FIG. 8, which defines a plurality of valleys 31, in which books B can be placed. Each valley 31 has a back wall 33 against which books B can rest, and a front wall 35 which is of a sufficient height to prevent the books from falling forwardly out of the book rack 1. The fronts 33 and backs 31 of each valley are joined by the bottom 37 of the valley. The front 35 of one valley and the back 33 of its preceding valley are joined by the top or crest 39 of each wave. The rack 5 is formed so that each valley 31 is slightly higher and behind its preceding valley so that the books contained in each valley will be readily visible and easily reachable. As noted above, the rack 5 is preferable made of a clear or substantially transparent plastic. This enables the children to better see the front covers of the books B to recognize the books contained in book rack 1.

The side walls 3 each have a groove 41 formed on their inner surfaces. Groove 41 is shaped complementary to rack 5 and receives rack 5. To secure rack 5 to walls 3, a glue is placed in groove 41 and the rack is then inserted into the groove. In this manner, the rack is glued to the walls, to hold the book shelf together.

As can be appreciated, the construction of the book rack of the present invention provides a light weight, yet sturdy, book rack which can hold children's books in such a manner that the books are readily visible and accessible to children. The design of the walls 3 makes the book rack stable, so that it may not be easily overturned by children.

Variations may be apparent to those skilled in the art which are within the scope of the appended claims. The foregoing description is thus intended to be descriptive and not limiting.

Claims

1. A book rack having

   two side walls (3), said side walls each including a core (7) made of a lightweight structural material, inner and outer coatings (15) covering an inner surface (9) and an outer surface (11) of said core, respectively, and an edge bead (19) covering an edge (13) of said core, said lightweight structural material being chosen from the group consisting of styrofoam, foamed urethane, corrugated paperboard, and honeycombed paperboard; and

   a rack means (5) extending between said two side walls, said rack means comprising a single sheet of material formed generally as a wave defining a plurality of valleys (31), each said valley having a forward wall and a rear wall, said sheet being formed such that the a valley is positioned above and behind a preceding valley.

2. The book rack of claim 1 wherein said rack means sheet is made cf plastic or acrylic.

3. The book rack of claim 2 wherein said rack means sheet is substantially transparent.

4. The book rack of claim 1 wherein said coatings comprise formica.

5. The book rack of claim 1 wherein said inner surfaces of said side walls define grooves shaped complementary to said rack means, said rack means being received in said grooves.

6. The book rack of claim 1 wherein said side wall coverings extend beyond said lightweight structural material to define a channel, said edge bead including a foot portion and an exposed bead portion, said foot portion being received in said channel.

7. The book rack of claim 6 wherein said edge bead comprises an extruded plastic or rubber.

8. The book rack of claim 7 wherein said edge bead is hollow.

9. The book rack of claim 8 wherein said edge bead has an inner wall separating said foot portion from said bead portion.

10. A book rack having

    two side walls (3), said side walls each comprising

    a core (7) having an inner surface (9), an outer surface (11), and an edge (13), said core being made of a lightweight structural material;

    inner and outer liners (15) covering said core inner and outer surfaces, said liners being made from a hard washable material; and

    an edge bead (19) covering said edge of said core; and

    a rack means (5) extending between said two

side walls, said rack means comprising a single sheet of a substantially transparent material; said sheet defining a plurality of valleys (31) in which books can be placed, each said valley having a forward wall (35) and a rear wall (33), said sheet being formed such that the a valley is positioned above and behind a preceding valley;

said inner surfaces of said side walls defining a groove (41) shaped complementary to said rack means, said rack means being received in said groove.

11. The book rack of claim 10 wherein said lightweight structural material is chosen from the group consisting of styrofoam, foamed urethane, corrugated paperboard, and honeycombed paperboard.

12. The book rack of claim 10 wherein said rack means sheet is made of plastic or acrylic.

13. The book rack of claim 10 wherein said liners are chosen from a group consisting of formica or plastic.

14. The book rack of claim 10 wherein said side wall liners extend beyond said lightweight structural material to define a channel, said edge bead including a foot portion and an exposed bead portion, said foot portion being received in said channel.

15. The book rack of claim 14 wherein said edge bead comprises an extruded plastic or rubber.

16. The book rack of claim 15 wherein said edge bead is hollow.

17. The book rack of claim 16 wherein said edge bead has an inner wall separating said foot portion from said bead portion.

Patentansprüche

1. Fächergestell für Bücher mit

zwei Seitenwänden (3), wobei jede Seitenwand einen Kern (7) aus leichtem, strukturellen Werkstoff aufweist, innere und äußere Beschichtungen (15) hat, die eine innere Fläche (9) beziehungsweise eine äußere Fläche (11) des Kernes überziehen, und mit einem Kantenband (19) versehen ist, das die Kante (13) des Kernes abdeckt, wobei der leichte, strukturelle Werkstoff ausgewählt ist aus der Gruppe von Styrofoam, geschäumtem Urethan, Wellpappe und Bienenwabenpappe; und mit

einer Fächereinrichtung (5), welche sich zwischen den beiden Seitenwänden erstreckt, wobei die Fächereinrichtung aus einem einzigen Blatt eines im wesentlichen wellenförmig geformten Materials besteht, welches mehrere Wellentäler (31) aufweist, wobei jedes Wellental eine vordere Wand und eine hintere Wand aufweist, und das Blatt so geformt ist, daß jedes der Wellentäler oberhalb und hinter einem vorhergehenden Wellental liegt.

2. Fächergestell für Bücher nach Anspruch 1, wobei das Blatt der Fächereinrichtung aus Kunststoff oder Acrylwerkstoff besteht.

3. Fächergestell für Bücher nach Anspruch 2, wobei das Blatt der Fächereinrichtung im wesentlichen transparent ist.

4. Fächergestell für Bücher nach Anspruch 1, wobei die Beschichtungen aus Formica bestehen.

5. Fächergestell für Bücher nach Anspruch 1, wobei die inneren Flächen der Seitenwände Nuten aufweisen, die komplementar zu der Fächereinrichtung geformt sind, und die Fächereinrichtung in den Nuten aufgenommen ist.

6. Fächergestell für Bücher nach Anspruch 1, wobei die Seitenwandbeschichtungen sich bis über das leichte strukturelle Material hinaus erstrecken zur Bildung eines Kanals, und das Kantenband einen Fußteil und einen freiliegenden Kopfteil aufweist, wobei der Fußteil in dem Kanal aufgenommen ist.

7. Fächergestell für Bücher nach Anspruch 6, wobei das Kantenband aus extrudiertem Kunststoff oder Gummi besteht.

8. Fächergestell für Bücher nach Anspruch 7, wobei das Kantenband hohl ist.

9. Fächergestell für Bücher nach Anspruch 8, wobei das Kantenband eine innere Wand hat, welche den Fußteil und den Kopfteil voneinander trennt.

10. Fächergestell für Bücher mit

zwei Seitenwänden (3), wobei jede Seitenwand einen Kern (7) mit einer inneren Fläche (9), einer äußeren Fläche (11) und einem Rand (13) aufweist, und der Kern aus einem leichten, strukturellen Material hergestellt ist;

einer inneren und einer äußeren Beschichtung (15), welche die innere und die äußere Fläche des Kernes abdecken, wobei die Beschichtungen aus einem harten, abwaschbaren Material

bestehen; und

einem Kantenband (19) zur Andeckung der Kante des Kernes; und

einer Fächereinrichtung (5), die sich zwischen den beiden Seitenwänden erstreckt, wobei die Fächereinrichtung aus einem einzigen Blatt eines im wesentlichen durchsichtigen Materials besteht; wobei das Blatt mehrere Wellentäler (31) bildet, in welche Bücher ausgestellt werden können, wobei jedes Wellental eine vordere Wand (35) und eine hintere Wand (33) aufweist, und das Blatt so geformt ist, daß jedes der Wellentäler oberhalb und hinter einem vorhergehenden Wellental liegt;

wobei die inneren Flächen der Seitenwände Nuten (41) aufweisen, die komplementar zu der Fächereinrichtung geformt sind und die Fächereinrichtung in den Nuten aufgenommen ist.

11. Fächergestell für Bücher nach Anspruch 10, wobei das leichte, strukturelle Material ausgewählt ist aus der Gruppe von Styrofoam, geschäumtem Urethan, Wellpappe und Bienenwabenpappe.

12. Fächergestell für Bücher nach Anspruch 10, wobei das Blatt der Fächereinrichtung aus Kunststoff oder Acrylwerkstoff hergestellt ist.

13. Fächergestell für Bücher nach Anspruch 10, wobei die Beschichtungen hergestellt sind aus Formica oder Kunststoff.

14. Fächergestell für Bücher nach Anspruch 10, wobei die Seitenwandbeschichtungen sich bis über das leichte, strukturelle Material hinaus erstrecken zur Bildung eines Kanals und das Kantenband einen Fußteil und einen freiliegenden Kopfteil aufweist, wobei der Fußteil in dem Kanal aufgenommen ist.

15. Fächergestell für Bücher nach Anspruch 14, wobei das Kantenband aus extrudiertem Kunststoff oder Gummi besteht.

16. Fächergestell für Bücher nach Anspruch 15, wobei das Kantenband hohl ist.

17. Fächergestell für Bücher nach Anspruch 16, wobei das Kantenband eine innere Wand aufweist, die den Fußteil von dem Kopfteil trennt.

Revendications

1. Présentoir pour livres ayant

deux parois de côté (3), ces parois de côté comportant chacune un noyau (7) fabriqué d'une matière légère structurale, des revêtements interne et externe (15) couvrant une surface interne (9) respectivement une surface externe (11) du noyau, et une bande de chant (19) couvrant le bord (13) de ce noyau, la matière légère structurale étant choisie du groupe comportant le styrofoam, l'uréthane moussé, le carton ondulé, et le carton alvéolé; et

un moyen d'étagère (5) s'étendant entre les deux parois de côté, ce moyen d'étagère comportant une seule feuille de matière ayant une forme globale ondulée formant plusieurs vallées (31), chacune de ces vallées ayant une paroi avant et une paroi arrière, ladite feuille étant formée de sorte que chacune de ces vallées soit disposée au-dessus et derrière une vallée précédente.

2. Présentoir pour livres selon la revendication 1, dans lequel la feuille formant le moyen d'étagère est fabriquée de matière plastique ou acrylique.

3. Présentoir pour livres selon la revendication 2, dans lequel la feuille formant le moyen d'étagère est sensiblement transparente.

4. Présentoir pour livres selon la revendication 1, dans lequel les revêtements consistent en Formica.

5. Présentoir pour livres selon la revendication 1, dans lequel les surfaces internes des parois de côté sont pourvues de rainures formées de façon complémentaire au moyen d'étagère, ce moyen d'étagère étant reçu dans ces rainures.

6. Présentoir pour livres selon la revendication 1 dans lequel les revêtements des parois de côté s'étendent au-delà de la matière légère structurale en vue de former un canal, la bande de chant comportant une partie de talon, et une partie de bande exposée, la partie de talon étant reçu dans le canal.

7. Présentoir pour livres selon la revendication 6 dans lequel la bande de chant consiste en matière plastique ou en caoutchouc extrudé.

8. Présentoir pour livres selon la revendication 7 dans lequel la bande de chant est creuse.

9. Présentoir pour livres selon la revendication 8, dans lequel la bande de chant a une paroi interne séparant la partie de talon de ladite partie de bande exposée.

10. Présentoir pour livres ayant:

deux parois de côté (3), ces paroi de côté comportant chacune un noyau (7) ayant une surface interne (9), une surface externe (11), et un bord (13), ce noyau étant fabriqué d'une matière légère structurale;

des revêtements interne et externe (15) couvrant les surfaces interne et externe du noyau, ces revêtements étant fabriqués d'une manière dure lavable;

et une bande de chant (19) couvrant le bord de ce noyau; et

un moyen d'étagère (5) s'étendant entre les deux parois de côté, ce moyen d'étagère comportant une seule feuille d'une matière sensiblement transparente; cette feuille formant une pluralité de vallées (31) dans lesquelles les livres peuvent être placés, chacune de ces vallées ayant une paroi avant (35) et une paroi arrière (33), la feuille étant formée de sorte que chacune de ces vallées soit disposée au-dessus et derrière une vallée précédente;

lesdites surfaces internes des parois de côté étant pourvues d'une rainure (41) formée de façon complémentaire du moyen d'étagère, le moyen d'étagère étant reçu dans cette rainure.

11. Présentoir pour livres selon la revendication 10, dans lequel la matière légère, structurale est choisie du groupe comportant le styrofoam, l'uréthane moussé, le carton ondulé, et le carton alvéolé.

12. Présentoir pour livres selon la revendication 10, dans lequel la feuille formant le moyen d'étagère est fabriqué en matière plastique ou acrylique.

13. Présentoir pour livres selon la revendication 10, dans lequel les revêtements sont choisis du groupe comportant le Formica ou la matière plastique.

14. Présentoir pour livres selon la revendication 10, dans lequel les revêtements des parois de côté s'étendent au-delà de la matière légère structurale en vue de former un canal, la bande de chant comportant une partie de talon et une partie de bande exposée, la partie de talon étant reçue dans le canal.

15. Présentoir pour livres selon la revendication 14 dans lequel la bande de chant est en matière plastique ou en caoutchouc extrudé.

16. Présentoir pour livres selon la revendication 15, dans lequel la bande de chant est creuse.

17. Présentoir pour livres selon la revendication 16, caractérisé en ce que la bande de chant a une paroi interne séparant la partie de talon de la partie de bande exposée.

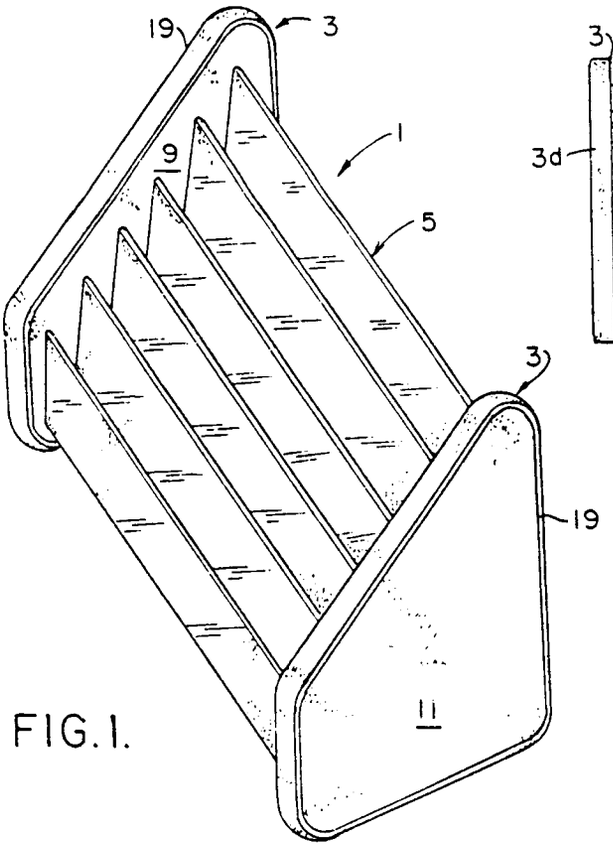

FIG. 1.

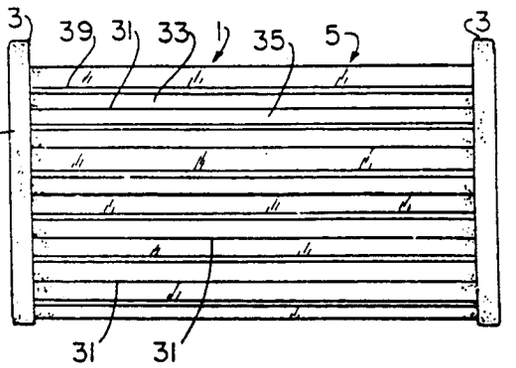

FIG. 2.

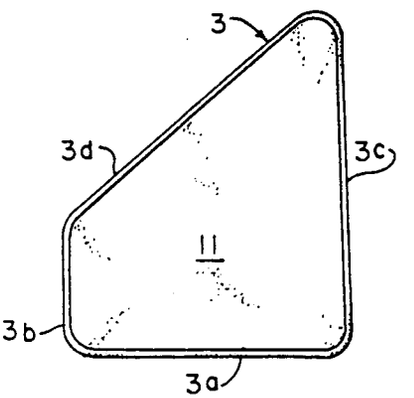

FIG. 3.

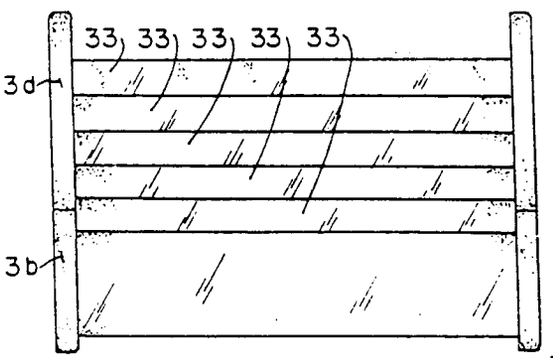

FIG. 4.

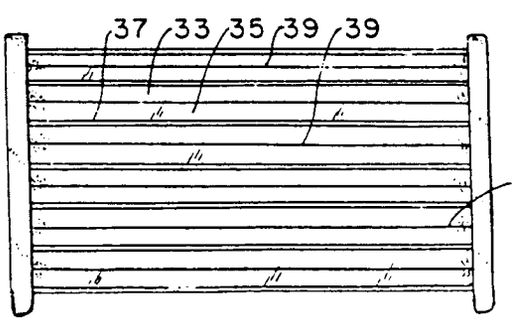

FIG. 5.

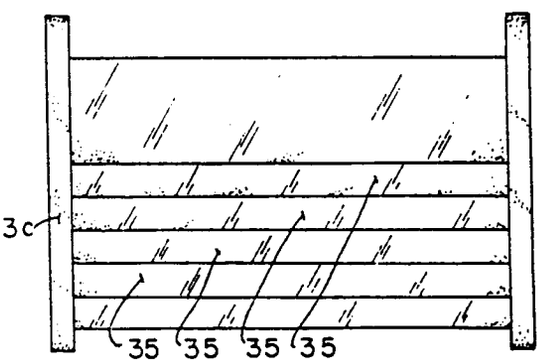

FIG. 6.

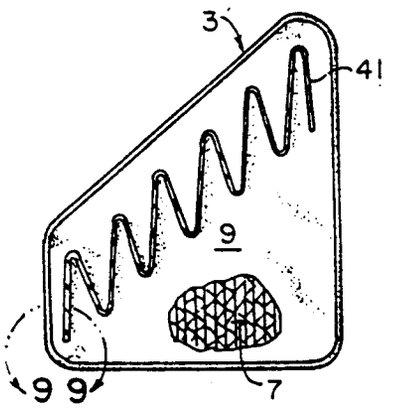

FIG. 7.

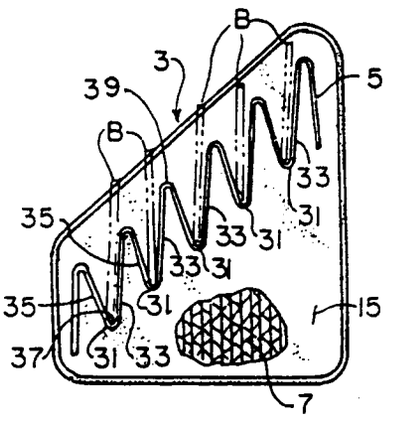

FIG.8.

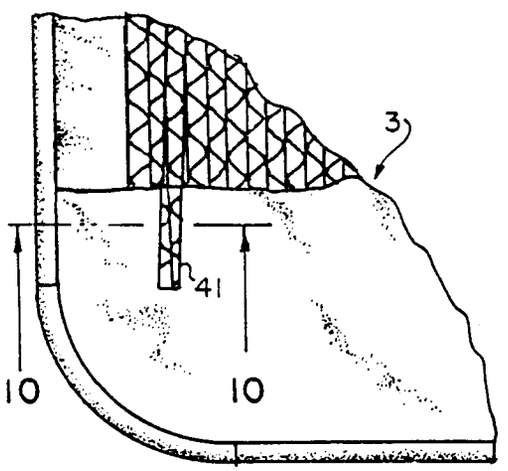

FIG. 9.

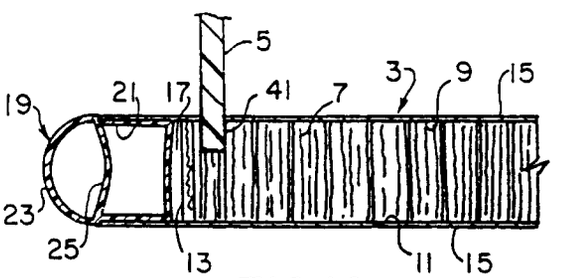

FIG.10.