United States Patent

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[54] **BODY SUPPORTER**
9 Claims, 3 Drawing Figs.

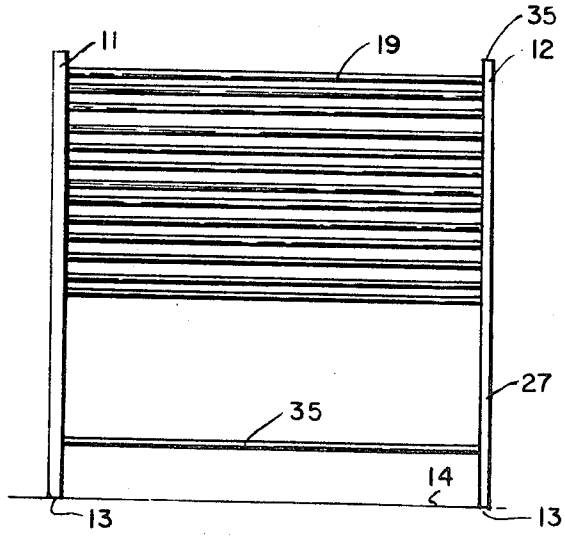
[52] **U.S. Cl.** **297/440, 108/64**
[51] **Int. Cl.** **A47c 4/02,** A47c 7/00
[50] **Field of Search** 297/1, 3, 87, 440, 239, 445, 450, 451, 452; 108/59, 64

[56] **References Cited**
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Primary Examiner—Casmir A. Nunberg

ABSTRACT: A pair of horizontally spaced rectangular members of plastic impregnated wood has a plurality of identical apertures in parallel horizontal and vertical rows and columns receiving dowel rods in apertures selected to form a seat and foot rest of desired size, location, and configuration.



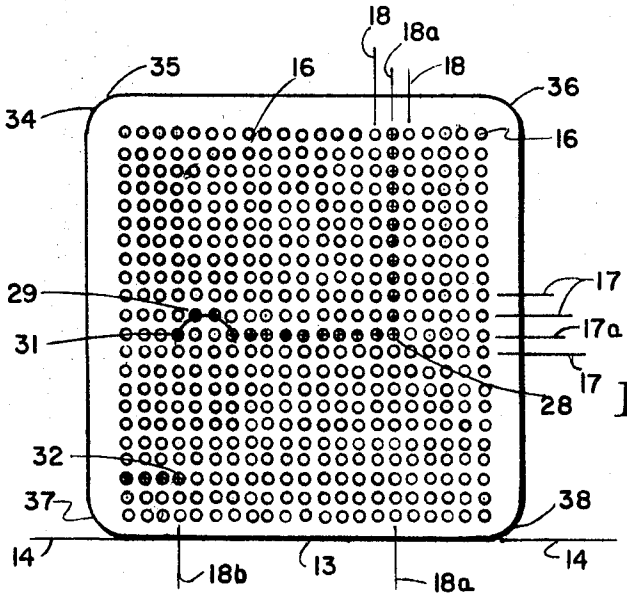


Fig. 1

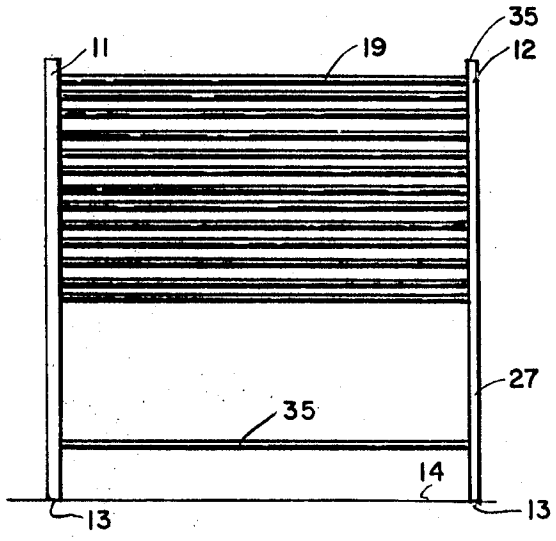


Fig 2

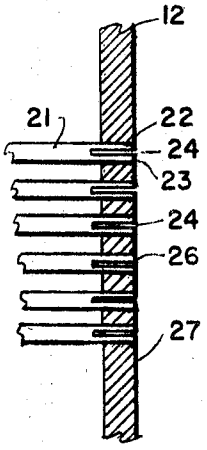


Fig. 3

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BODY SUPPORTER

BACKGROUND OF THE INVENTION

1. **Field of the Invention**

This invention relates generally to furniture and more particularly to a body supporter useful, for example, as a chair for children afflicted with cerebral palsy.

2. Description of the Prior Art

Cerebral palsy can affect children in various ways and to various degrees. In those afflicted children who are capable of being educated and capable of learning to use their arms and legs, it is important that they have the opportunity to learn and train insofar as possible. Therefore it is important for these children that they have an opportunity to work and study in a sitting position as contrasted to lying on their backs. It has been found that the nature of the seating is important. For example, some children afflicted with the "extension" syndrome must be seated such that body angles are established within certain limits otherwise the body will not remain in a sitting position, but will immediately straighten.

Various efforts have been made to provide equipment suitable for cerebral palsied children. One example is shown in U.S. Pat. No. 2,630,160 issued to Friedman. Such equipment is typically expensive, heavy, so that it is not entirely satisfactory either for the homes, institutions, or personnel who care for these children. The present invention provides a chair meeting the needs and overcoming the shortcomings of prior art efforts in this area.

SUMMARY OF THE INVENTION

Described briefly, in a typical embodiment of the present invention, a pair of horizontally spaced wall members is provided with a plurality of dowel rods received in selected apertures of the wall members to provide a seat of the desired configuration and size to the person who will be using it, the arrangement being adjustable periodically to accommodate varying needs of the individual.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a side elevational view of a chair according to a typical embodiment of the present invention.

FIG. **2** is a front elevational view thereof.

FIG. **3** is an enlarged fragmentary section through some of the rod-mounting apertures showing the rod received therein.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail, two wall members **11** and **12** preferably made of plastic impregnated wood, three-quarter inches thick and 2 feet square, are disposed with the lower straight marginal edges **13** thereof resting upon a floor surface **14**. Each of these is provided with a plurality of circular apertures such as **16**, arranged in horizontal rows along horizontal lines such as **17**, for example, and vertical rows or columns such as along lines **18**, for example. The spacing between successive rows is preferably 1 inch. and the spacing between adjacent columns is likewise preferably 1 inch.

A plurality of dowel rods is shown bridging the space **19** between the wall members **11** and **12**, each of the dowel rods having an end thereof received in an aperture of one of the wall members. For example as shown in FIG. **3**, the dowel rod **21** has end portion **22** thereof received in an aperture **23** in the member **12**. The dowel rod is cross slotted as at **24** so that ⅝-inch diameter dowel rod can be inserted in a ⅝-inch diameter aperture and remain securely in position therein by a friction fit. A typical length of each of the dowel rods is 18 inches so that if the outer ends **26** of the dowel rods are flush with the outer faces such as **27** of the walls **11** and **12**, the width of the chair between the walls is 16½ inches. This can be varied by moving the sides **11** and **12** toward each other, depending upon the size of the child who will use the chair.

As best shown in FIG. **1**, one group of the dowel rods **21** is received in apertures along the vertical line **18***a* from the uppermost aperture in the column to the aperture **28** at an elevation selected according to the size of the child. Another row of dowel rods is provided along the row of apertures **17***a*. This column and row of dowel rods provides a seat back and seat bottom, respectively. At the front end of the seat near area **29**, a slight roll at the bend of the knees of the child is provided by locating the end dowels generally in a semicircle designated by the line **31**, using not only the apertures in row **17***a* but also in the row immediately above it.

In the column **18***b* of apertures, the forwardmost end dowel of the seat is located in row **17***a*. In this same column a rearwardmost dowel **32** of a footrest **33** is provided, three additional dowels in the next adjacent columns serving to complete the footrest. This is generally provided in a row 1 or 2 inches above the floor **14**. Again, the height of the foot rest and the height of the seat with respect to the footrest can be determined according to the size of the child to be seated.

In the illustrated example, the seat bottom is approximately midway between the lower and upper margins **13** and **35** of the chair sides. The sides thereby serve as integral side supports for the child. In addition, the rounded corners at **34** and **36** provide safety factors, and the rounded corners at **37** and **38** avoid damage to flooring surfaces and yet facilitate movement of the chair by a person attending the child. Because of the fact that the apertures are spaced ban the dowels are of the same size as the apertures, air spaces are provided between the various dowels and each adjacent dowel, assuring adequate ventilation and yet the spaces are narrow enough that firm seating support for the child is provided. The chair can be made to weigh approximately 30 pounds and can be readily disassembled for transporting. As the child grows or as his needs in seating may change, the size and configuration of the seat can easily be changed by rearranging the dowel rods. The chair sides and the dowels can be provided in a variety of colors and finishes and make an attractive addition to any setting.

While the invention has been disclosed and described in some detail in the drawings and foregoing description, they are to be considered as illustrative and not restrictive in character, as other modifications may readily suggest themselves to persons skilled in this art and within the broad scope of the invention, reference being made to the appended claims.

The invention I claim is:

1. A Body Supporter comprising:

first and second parallel upstanding, horizontally spaced walls, each of said walls having a plurality of apertures therein, the apertures in one of said walls being aligned with the apertures in the other of said walls, a first plurality of dowel rods bridging the space between said walls, each of said dowel rods having opposite ends thereof received in selected aligned apertures of said walls, said rods arranged to form a support between said walls, the selected aligned apertures of the walls being selected such that the individual rods inserted therein define a surface capable of supporting a body.

2. The supporter of claim **1** wherein:

said rod ends are received in apertures selected according to a pattern of apertures lying in two intersecting straight lines for a seat back and seat bottom, and terminated by apertures lying in a semicircle for the edge of the seat bottom.

3. The supporter of claim **1** and further comprising:

a second plurality of rods having opposite ends received in aligned apertures of said walls,

said second plurality being spaced below said first plurality to provide a footrest.

4. The supporter of claim **3** wherein:

said apertures are aligned in rows parallel to floor-engaging lower margins of said walls, and the apertures receiving said rods of said second plurality are in one of said rows near said lower margin.

5. The supporter of claim 1 wherein:
said dowel rods are removable individually from said walls for rearrangement to form seats of various configurations.

6. The supporter of claim 1 wherein:
said dowel rods are spaced apart a distance equal to the spacing between the apertures in which they are received.

7. The supporter of claim 1 wherein the apertures in the walls are arranged in horizontal and vertical rows, the corresponding apertures in each horizontal row of each wall forming the vertical rows of apertures of that same wall.

8. The supporter of claim 7 wherein the spacing between adjacent vertical rows of apertures is 1 inch and the spacing between adjacent horizontal rows of apertures is likewise 1 inch.

9. The supporter of claim 1 wherein the dowels may be inserted in selected apertures of the end walls and the end walls moved toward each other to adjust the configuration to the desired width.