United States Patent

Carr

[15] 3,703,734

[45] Nov. 28, 1972

[54] **ELEVATED AND CONFINED FLOOR AREA APPARATUS FOR THE CARE OF INVALIDS AND SMALL CHILDREN**

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[22] Filed: **March 26, 1971**

[21] Appl. No.: **128,261**

[52] **U.S. Cl.** ..... **5/99 R**, 5/92

[51] **Int. Cl.** **A47s 9/00**, A47c 27/08

[58] **Field of Search** 5/2, 90, 99, 100; 182/82, 128, 152, 179; 108/60, 114; 52/27, 173, 236–239; 256/26; 211/123

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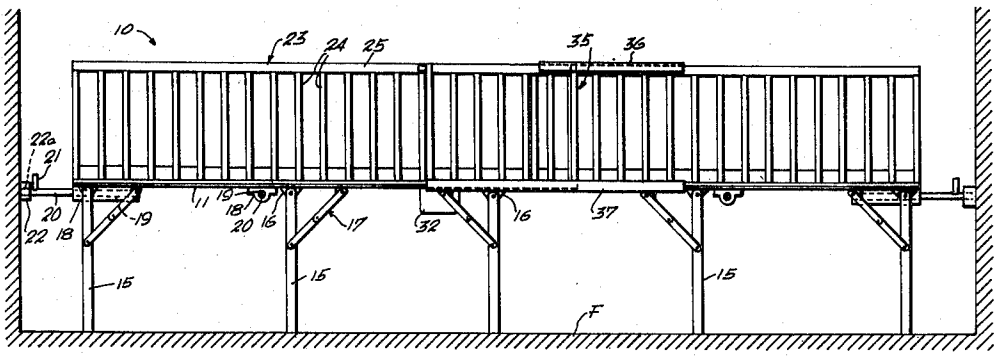
Primary Examiner—Casmir A. Nunberg

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[57] **ABSTRACT**

A modulate elevated floor apparatus for erection is any size room with a peripheral walkway for the purpose of attending infants, small children or invalids without ending over to room floor level, is described. A peripheral guard fence and rail confines children or invalids being cared for to the elevated floor area. Trap door means is provided in the elevated flooring to permit an attendant access to a central zone of the elevated flooring to attend to matters that cannor be reached from the peripheral walkway. Means is also provided for sub-dividing the elevated floor area into crib-like compartments for separately confining infants or small children whenever necessary or desirable.

5 Claims, 5 Drawing Figures



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SHEET 1 OF 2

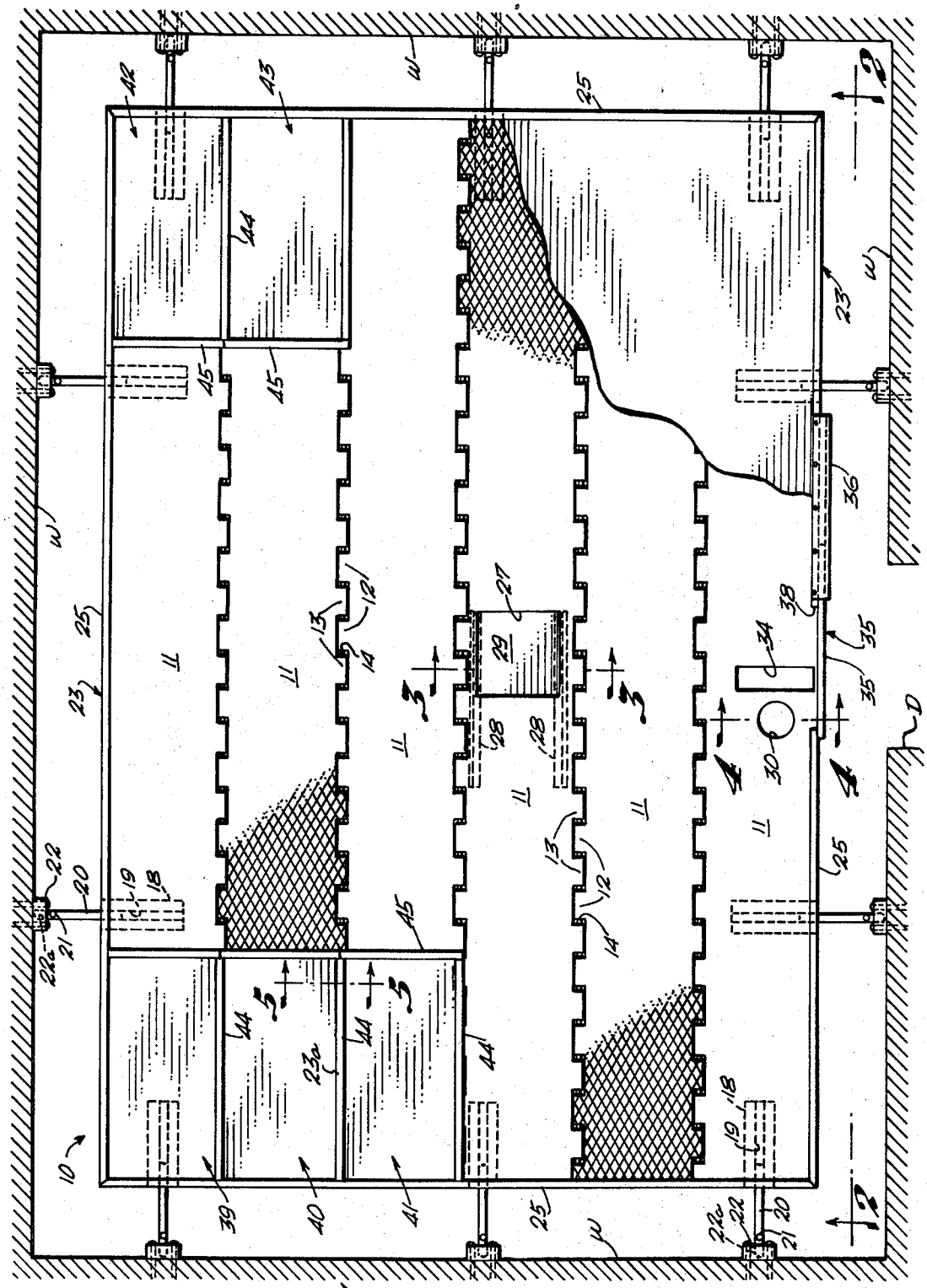


Fig. 1

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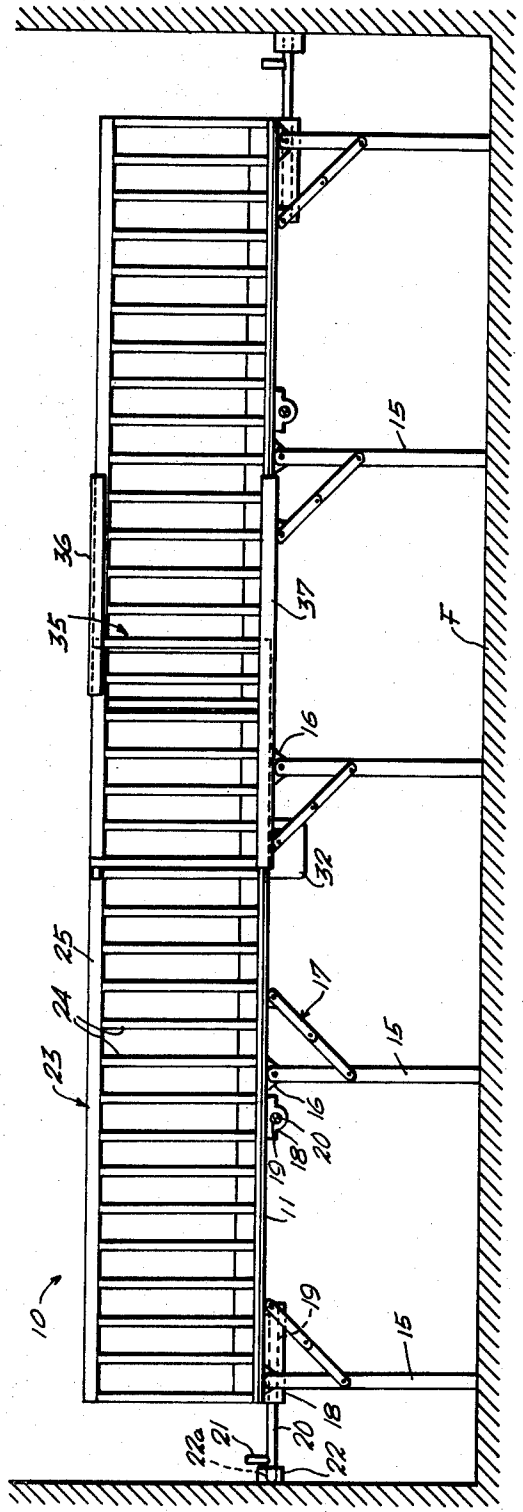


Fig. 2

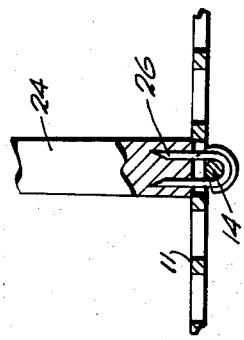


Fig. 5

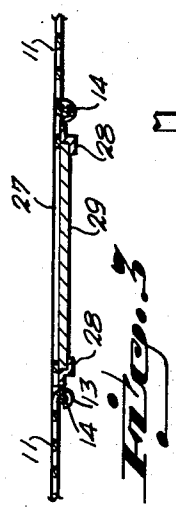


Fig. 3

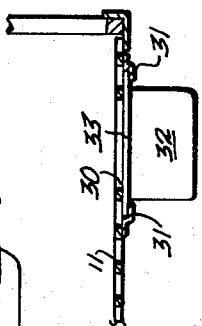


Fig. 4

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ELEVATED AND CONFINED FLOOR AREA APPARATUS FOR THE CARE OF INVALIDS AND SMALL CHILDREN

This invention relates to nursery and child care equipment and is directed particularly to an elevated and peripherally confined floor structure of adjustable size to fit, with a surrounding walkway, into any size room to permit attendants to conveniently walk around the device in caring for small children or invalids without fatigue due to excessive bending at the waist.

The principal object of this invention is to provide a device of the character described that is of modular construction so as to be readily adaptable for installation in any size room.

A more particular object of the invention is to provide an elevated floor device of the above nature the elevated floor area of which can readily be sub-divided into crib-sized compartments for the individual care of a plurality of small children or invalids.

A more particular object of the invention is to provide an elevated floor device of the above nature wherein the flooring or base comprises a plurality of elongated members of expanded metal hinged together along their lengths, the number thereof being determined by the size of the room in which the device is to be installed.

Yet another object of the invention is to provide an elevated floor device of the above nature including trap door means in the center of the flooring permitting an attendant to take a position substantially at the center for attending small children or invalids not reachable from the outer periphery or walkway around the device, and for caring for the floor area, such as cleaning etc., as may be necessary from time to time.

Still another object of the invention is to provide an elevated floor device of the above nature, which besides being well suited for home use, is well adapted to use in the larger sizes in children's nurseries, in churches, hospitals, day care centers and the like.

Other objects, features and advantages of the invention will be apparent from the following description when read with reference to the accompanying drawings. In the drawings, wherein like reference numerals denote corresponding parts throughout the several views:

FIG. 1 is a top plan view, with a portion of the floor mat broken away to reveal constructional details, of an elevated and confined floor area apparatus embodying the invention;

FIG. 2 is an elevational view as seen from the front of the apparatus, taken along the line 2—2 of FIG. 1 in the direction of the arrows;

FIG. 3 is a transverse cross-sectional view taken along the line 3—3 of FIG. 1 in the direction of the arrows and illustrating details of the trap door mechanism;

FIG. 4 is a transverse cross-sectional view taken along the line 4—4 of FIG. 1, in the direction of the arrows and illustrating details of the toilet chamber mechanism; and

FIG. 5 is a transverse cross-sectional view taken along the line 5—5 of FIG. 1, in the direction of the arrows and illustrating, typically, how the expanded metal flooring connects with the upright posts comprising the confining fence walls.

Referring now in detail to the drawings, reference numeral 10 designates, generally, an elevated and confined floor apparatus embodying the invention, the same comprising a plurality of floor strip members 11, preferably fabricated of expanded sheet metal for strength with lightness in weight. The expanded metal floor strip members 11, because of their multiplicity of through openings, provide for the free flow of ventilating air.

Means is provided for hingingly interconnecting the floor strip members 11 along their lengths. To this end, they are each formed with downwardly directed, spaced hinge loops 12 along one side and longitudinally off-set downwardly directed, spaced hinge loop 13 at the other side. The facing hinge loops 12, 13 of adjacent pairs of the floor strip members 11 are intermeshed to receive elongated hinge rods 14 upon assembly of the flooring. It will be understood that the number of floor strip members 11 used in the assembly, and their length, will be chosen to fit centrally within the room in which the device is to be installed with peripheral spacing from the room walls of about 18 to 24 inches to provide a walkway for attendants or nurses taking care of young children placed within the confines of the elevated flooring.

As means for supporting the flooring of assembled floor strip members 11 above the room floor F, peripheral edge zones thereof are provided with a plurality of spaced folding legs 15 pivotally supported at their upper end with respect to brackets 16. Each of the folding legs 15 is provided with a collapsable link brace mechanism 17 for foldably retaining the legs 15 in downwardly extending support relation. Additional legs 15 (not illustrated) could also be fitted inwardly of the peripheral edges for additional floor support if necessary.

As additional sideward support means for the flooring, the underside thereof, about the periphery, is fitted with a plurality of spaced socket members 18 having perpendicularly outwardly extending through openings 19 slidably received within which are lateral support rods or braces 20. The wall support rods or braces 20, near their outer ends, are fitted with sidewardly outwardly extending handles 21 facilitating manual in and out movement of said braces with respect to their socket members 18. A plurality of wall sockets 22, one for each of the slide support braces 20, are affixed against side wall portions of the room walls W in which the apparatus is installed in register, one each, with the support braces 20. The wall sockets 22 are provided with outwardly extending bores 22*a* adapted to receive outer end portions of their respective support braces 20 when moved to their outermost positions by means of the brace handles 21, as best illustrated in FIG. 1. In order for an attendant entering the room through a doorway D in which the apparatus is installed to freely make his way around the elevated floor apparatus, it is only necessary to manually move the support braces outwardly away from the wall sufficiently to allow passage, whereupon said braces can be moved back into the wall supporting position again, as illustrated. Since the wall support braces 20 will be opened only one at a time the overall support of the elevated floor apparatus provided by the remainder of the support braces 20 and the folding legs 15 will be substantially unimpaired.

As a confining means for the above described flooring, a peripheral fence wall **23** is provided, said wall comprising spaced vertical posts **24** the upper ends of which are connected by a top rail **25**. As best illustrated in FIG. **5**, by way of example, the lower ends of the posts **24** are affixed in upstanding relation with respect to the flooring such as by means of large staples **26**. Whereas FIG. **5** illustrates a wall section through a wall partition **23a** running along a hinged portion of the flooring, so that the staple **26** as illustrated in FIG. **5** can pass in hooking engagement over the associated hinge rod **14**, it will be understood that in other zones of interconnection the legs of staples **26** can readily be passed through adjacent openings in the expanded metal floor strip members for anchoring posts **24** in place.

Means is provided for enabling an attendant to station herself centrally within the elevated floor apparatus **10** for attending children or otherwise performing tasks which cannot be readily accomplished from the peripheral walkway surrounding the apparatus. To this end, a rectangular opening **27** is provided in one of the central floor strip members **11**, centrally along its length. Angular guide channel members **28** at each side of the rectangular opening **27** and affixed against the underside of the associated floor strip member **11** slidingly support therebetween a trap door **29** movable between open and closed positions with respect to said rectangular opening.

The outside floor strip member **11** adjacent the room for opening D is provided with a circular toilet chamber opening **30**. Guide channel members **31** fixed against the underside of the floor strip member **11** at each side of the chamber opening **30** provide means for slidingly receiving a chamber pot **32** normally to be disposed directly below said chamber opening. As best illustrated in FIG. **4** the guide channel members **31** provide opposed support ledge means for slidably supporting opposite zones of an outwardly extending peripheral flange **33** at the upper end of the chamber pot **32**. A transverse rectangular leg opening **34** is provided in the front floor strip member **11** in slightly spaced relation with respect to the chamber opening **30** for the through passage of a child's legs when using the toilet chamber pot **32**. Floor opening cover members, not illustrated, are provided for closing off the openings **30** and **34** when not in use.

A wall fence gate section **35** is provided in the front section of the peripheral fence **23** to permit ready access of an attendant to the toilet facilities provided by the above described toilet chamber opening **30** and leg opening **34**. Preferably, the wall fence gate section **35** will be located near the doorway D of the room in which the apparatus is installed, as is best illustrated in FIG. **1**. As illustrated in FIGS. **1**, **2** and **4**, angular upper and lower guide channel members **36** and **37** are provided which slidingly support the wall gate section **35** for movement between open and closed relation with respect to a gate opening **38** provided in the front section of the peripheral fence wall **23**.

As illustrated in FIG. **3**, means is provided for fencing off one or more crib sections within the confines of the peripheral fence wall **23** to separately accommodate infants or small children for sleeping, for example. Five such crib-like compartments are illustrated in FIG. **1**, designated by reference numerals **39** through **43**. To this end, longitudinal and transverse fence sections **44** and **45**, respectively, are provided for connection at their lower ends to the floor strip members **11** in the same manner as the peripheral fence wall **23** as described above and as illustrated in FIG. **5**, for example. Any convenient manner can be used to join the fence wall compartment sections **44** and **45** in abutting relation.

As partially illustrated in FIG. **1**, the flooring comprising the floor strip members **11** will be fitted with a resilient mat, preferably of foam rubber, which mat will be covered by a water-proof material. Cut out mat sections will be provided for the trap door, toilet chamber and leg openings, (not illustrated), which will be retained in place such as by the use of snap fasteners when said openings are not in use. Individual mats will also be provided for the crib compartments **39** through **43**. Preferably, the size of the crib compartments **39** through **43** will be $2' \times 4'$ and the overall width and length of the apparatus will be in multiples of said crib compartment widths and lengths to accommodate the greatest number thereof.

It is to be understood that while my invention is particularly well suited for the care of invalids, particularly small child invalids in the home, it is also well suited to use, in larger sizes, as a nursery for babies or infants and thus has particular application for use in child care centers, hospitals, churches during services, and the like.

A salient feature of my invention resides in the fact that its modular construction permits ready adaptability to a wide variety of rectangular shapes and sizes of rooms, whether in the home or in public institutions or facilities.

Another important advantage of the invention is that it enables a mother, nurse or attendant to take care of invalids, small children or infants with a minimum of effort and fatigue due to bending over.

Another advantage resides in the fact that, even with the use of a large elevated floor area, an attendant can readily position herself upwardly through the trap door opening at a position near the center of the floor to take care of any matters that need attention.

While I have illustrated and described herein only one form in which my invention can conveniently be embodied in practice, it is to be understood that this form is given by way of example only, and not in a limiting sense. The invention, in brief, comprises all the embodiments and modifications coming within the scope and spirit of the following claims.

What I claim as new and desire to secure by Letters Patent is:

1. An elevated and confined floor apparatus for the care of invalids and small children comprising, in combination, a rectangular floor structure, means for supporting said floor structure in spaced, parallel, elevated relation with respect to a room floor, a fence wall extending upwardly about the periphery of said floor structure, gate means in said fence wall providing access through said fence wall for attending children confined on said floor structure, said rectangular floor structure comprising a plurality of rectangular expanded sheet metal floor strip members, means for disconnectably connecting said floor members along longitudinal abutting edge portions thereof, said con-

necting means comprising a plurality of spaced hinged loops formed along longitudinal edge portions of said floor strip members, elongated hinge rods receivable through interfittingly engaged hinge loops of adjacent ones of said floor strip members, said floor structure supporting means comprising a plurality of folding legs peripherally spaced about and extending downwardly with respect to said rectangular floor structure, and means for sidewardly supporting said flooring when erected in elevated relation with respect to the floor of a rectangular room, said means for sidewardly supporting said flooring comprising a plurality of brace rods peripherally arranged about the underside of said floor structure, and a telescoping socket member for each of said brace rods affixed to the underside of said floor structure and constraining their respective brace rods to sidewardly perpendicular in and out movement.

2. An elevated and confined floor apparatus for the care of invalids and small children as defined in claim 1, wherein said means for sidewardly supporting said flooring further comprises a wall socket for each of said brace rods adapted to be secured against side wall portion of the room in which the apparatus is to be installed, said wall sockets each comprising sidewardly outwardly extending recesses operative to receive one each of the outer ends of said brace rods.

3. An elevated and confined floor apparatus for the care of invalids and small children as defined in claim 2, including an opening in one of said floor strip members of sufficient size to permit passage therethrough of the upper portion of a human attendant, and sliding trap door means for closing said opening.

4. An elevated and confined floor apparatus for the care of invalids and small children as defined in claim 3, including a second opening in one of said floor strip members, means for removably attaching a chamber pot under said second opening, and a third opening in said last mentioned floor strip member in closely spaced relation with respect to said second opening for the through passage of the legs of a child using said chamber pot, and a resilient mat covering said floor structure.

5. An elevated and confined floor apparatus for the care of invalids and small children as defined in claim 4, including a plurality of longitudinal fence sections and a plurality of transverse fence sections, and means for affixing said longitudinal and transverse fence sections in upstanding relation with respect to said floor structure for sub-dividing the confined area of said floor structure into a plurality of crib-like compartments.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,703,734 Dated November 28, 1972

Inventor(s) Lottie Mae Carr

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

The address of the inventor "Lottie Mae Carr" should read -- P. O. Box 41362, BenHill Station, Atlanta, Georgia 30331 --.

Signed and sealed this 8th day of May 1973.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

FORM PO-1050 (10-69)

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