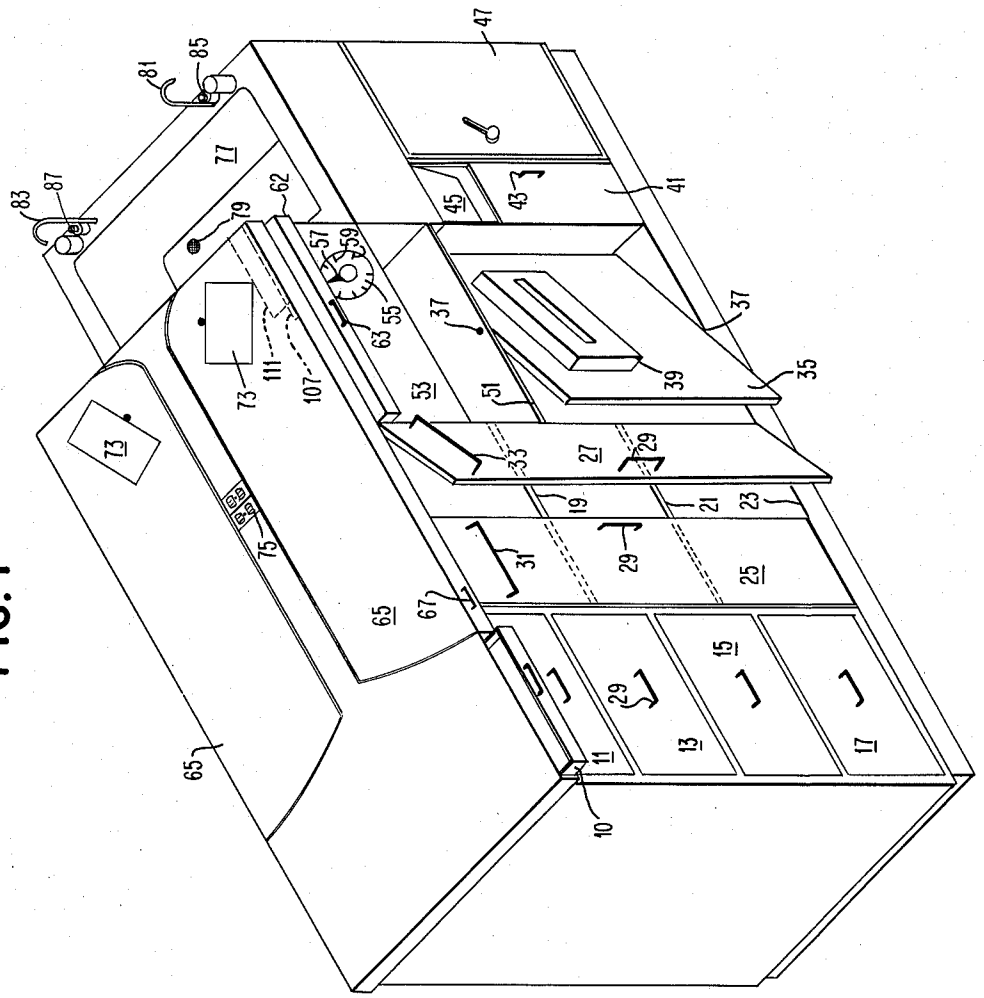
June 21, 1966 J. D. WORLEY, JR 3,257,155

THERAPEUTIC DEVICE

Filed June 9, 1964 2 Sheets-Sheet 1

FIG. 1



INVENTOR
JOHN D. WORLEY JR.

June 21, 1966 J. D. WORLEY, JR 3,257,155

THERAPEUTIC DEVICE

Filed June 9, 1964 2 Sheets-Sheet 2

FIG. 2

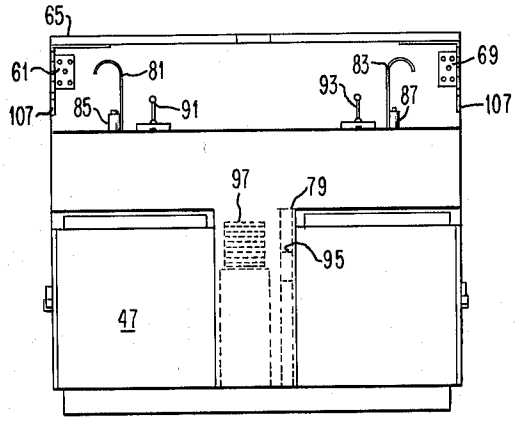


FIG. 3

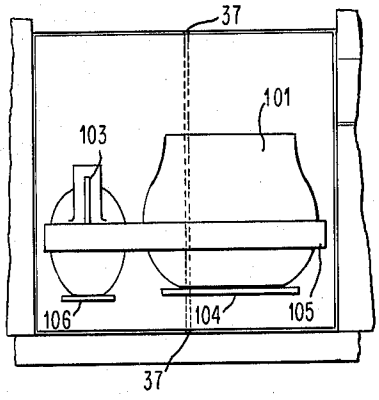


FIG. 4

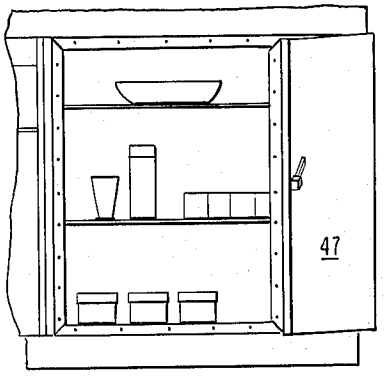


FIG. 5

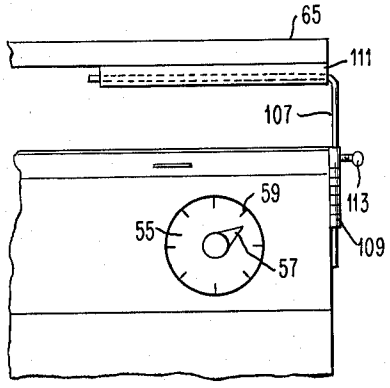
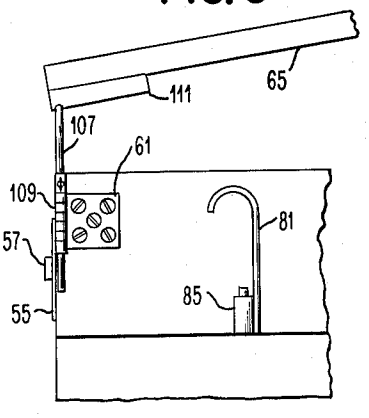


FIG. 6



United States Patent Office 3,257,155 Patented June 21, 1966

3,257,155

THERAPEUTIC DEVICE

John D. Worley, Jr., West Hurley, N.Y.
(3652 Alexander Court, Indianapolis, Ind.)

Filed June 9, 1964, Ser. No. 373,660
6 Claims. (Cl. 312—209)

The present invention relates to a therapy device and more particularly to a therapeutic device for use in a convalescent rehabilitation program.

In hospitals, public and private nursing and convalescent homes, a current rehabilitation trend which is receiving considerable attention and holds substantial promise is directed toward retraining patients in the performance of simple activities of daily living and encouragement of participation in a normal routine to the maximum possible extent. Such a program generally involves self-care by the patient in such activities as dressing, bed activities, hygiene or toilet activities, eating activities, etc. It has been demonstrated that such rehabilitation programs of terminal or convalescent patients can produce results in terms of more rapid restoration of function and improved morale with a corresponding change in the patient's outlook. To a patient who has been flat in bed and unable to do anything for himself, even simple functions involved in self-care constitutes stimulating activity. However, present hospital facilities are generally unsuitable for such rehabilitation programs. Generally, hospital facilities are geared to a convalescence program utilizing a high degree of nursing care and discouraging active participation by the patient. Conventional hospital or nursing equipment is generally limited to hospital carts or trays which function merely for transportation of various forms of medication or meals to the patient, and storage facilities such as a conventional cabinet for storage of personal belongings or hygienic facilities during the patient's recuperation. Neither facility is adaptable to a self-care rehabilitation program.

In accordance with the present invention, there is provided a therapeutic unit adapted to assist and encourage the patient in maximum participation in a normal living routine. The unit basically comprises a cabinet structure designed for placement near the patient's bed, which in its preferred embodiment comprises a dual cabinet arrangement adapted for placement between two hospital beds thereby enabling two patients to be served. Basically, the therapeutic unit provides storage facilities, santiary facilities, washing and drinking facilities, refrigeration, and disposal facilities, electrical outlets and control facilities. Refrigeration is provided to preserve refrigerated foods and drinks thus encouraging self-service by the patient. The control panel provides immediate access to items such as a nurse's call, an overbed light, radio and TV plug-in speakers, etc. Washing facilities comprise a sink having hot and cold water inlets and a drain. The unit includes a facial tissue dispenser mounted on a rotating board having a bed pan and urinal on its opposite side. The cabinet structure includes pass-through openings through which items such as a telephone could be passed between the patients. The cabinet top includes individual rotatable surfaces which rotate to form overbed tables which can be used for eating or may be tilted for reading. Each table top includes a mirror mounted thereon permitting the cabinet to function as a dresser for makeup, etc. The entire unit is compact in design, efficient and reliable in use, attractive in appearance and adapted to provide all essential facilities to enable the patient to participate to the fullest extent in a self-aid rehabilitation program.

Accordingly, a primary object of the present invention is to provide a self-aid therapeutic device.

Another object of the present invention is to provide a cabinet structure for use as a therapeutic device in a hospital or nursing home.

Still another object of the present invention is to provide a cabinet structure embodying storage, sanitary, washing, refrigeration, and disposal facilities.

Another object of the present invention is to provide a therapeutic device which is efficient and reliable in use, attractive in appearance and adapted to provide self-assistance facilities to participants in a rehabilitation program.

A further object of the present invention is to provide a dual cabinet therapeutic device enabling two patients to participate to a maximum extent in a self-assistance therapeutic process.

The foregoing and other objects, features and advantages of the invention will be apparent from the following more particular description of preferred embodiments of the invention, as illustrated in the accompanying drawings in which:

FIGURE 1 is a general perspective view of a preferred embodiment of the instant invention illustrating details of one of the dual cabinet arrangements.

FIGURE 2 is a side view of the instant invention illustrating details of the sink and refrigerator unit.

FIGURE 3 is a perspective view of the opposite side of the tissue dispensing rotating board illustrated in FIGURE 1.

FIGURE 4 is a front view of one of the refrigerator units illustrated in FIGURE 2.

FIGURE 5 is an enlarged perspective view of the overbed table and control unit illustrating details of the table adjustment.

FIGURE 6 is a side view of the overbed table illustrating the table tilting adjustment.

Referring now to the drawings and more particularly to FIGURE 1 thereof, the unit is provided with a plurality of cabinet storage compartments in the form of drawers **10**, **11**, **13**, **15**, **17**, and shelves **19**, **21**, and **23**. Drawer **10** as shown, is a shallow drawer designed to accommodate such items as medications, medication instruments such as thermometer, etc., while the remaining drawers **11**, **13**, **15**, **17** are adapted for general purpose storage requirements such as clothing, personal possessions, etc. Shelves **19**, **21**, **23** are pass-through shelves connecting one side of the compartment to the other, and are adapted for storage of such items as linens, towels, etc. Doors **25**, **27** on each side of the cabinet serve to close the compartments defined between shelves **19**, **23**, **25**. Handles **29** are provided for convenience in opening the drawers and doors, which rails **31**, **33** mounted on doors **25**, **29** function as towel racks. Alternately, paper towel rolls and associated holders could be substituted for towel racks **31**, **33**. Mounted adjacent to door **27** is a rotating board **35** pivoting horizontally about center points **37** having a tissue dispenser **39** mounted on one surface thereof. As more fully described hereinafter, the opposite side of rotating board **35** contains a bedpan and urinal. Door **41** and its associated handle **43** house a waste disposal unit into which litter is deposited through opening **45**. Door **47** serves to close the compartment in which is disposed the refrigerating unit more fully described hereinafter.

An open shelf or pass-through **51** is mounted directly over rotating board **35**. On the front panel **53** above shelf **51** is mounted electronic control unit **55** having an indicator **57**, the contacts **59** of which control various facilities such as the nurses' call button, an overbed light, radio and television plug-ins, etc., or any related facility over which it is desired to have the patient exercise control. A pull-out slab **62** having a handle **63** is mounted directly above panel **53** and would be used by the patient

for writing. An overbed table **65** having a handle or groove **67** constitutes a portion of the normally flush top of the cabinet. Each overbed table is designed to rotate over the bed of the patient and, as more fully described hereinafter, may be adjusted and tilted, if desired, to function as an eating or reading table. The table is secured to the cabinet frame by a plate **111** and rod **107** shown in dotted form in FIGURE 1 and more clearly shown in FIGURE 5. On each table is a flush-mounted folding mirror **73**, which may be raised and rotated to any desired angle for use in shaving or cosmetic aid, thereby enabling the cabinet to function as a vanity. A dual electrical outlet **75** is mounted on top intermediate the tables **65** and may be used for small appliances or fixtures such as a coffeemaker, toaster, shaver, lamp, etc. The sink **77** includes an outlet or drain plug **79** and conventional gooseneck type ice water outlets **81**, **83** controlled by associated buttons **85**, **87**.

Referring now to FIGURE 2 for additional details of the sink arrangement, the sink **77** may be comprised of porcelain or alternatively may be made of metal such as stainless steel or aluminum. The cabinet fixture includes individual hot and cold water outlets on each side activated by handles **91** and **93**. The drain **79** is connected to a drain pipe **95**, which will be connected to a waste outlet in a conventional manner. Mounted adjacent to the drain pipe **95** is compressor **97**. In the preferred embodiment herein described, a single compressor **97** is employed to service both refrigerators, although it will be understood that each refrigerator might employ its own compressor. Additional details of the refrigerator are described with reference to FIGURE 4.

Referring now to FIGURE 3, the rotating board **35** is shown on its opposite side with the tissue dispenser on the inside surface of the cabinet. A bedpan **101** and urinal **103** are mounted on shelves **104** and **106** and secured in position by a flexible strap **105**. Merely rotating the board through its pivot points **37** makes these sanitary facilities immediately available. It will be understood that obviously all patients would not require these facilities, but they are provided for those patients unable to use the regular bathroom facilities.

Referring now to FIGURE 4, there is illustrated a front view of one of the refrigerator units with door **47** open. The refrigerator includes a conventional shelf arrangement having available food, beverages, and ice cubes as may be desired by the patient. Since the refrigerator unit is not designed for general food storage but only as a supplement to provide certain refreshments such as fruit juice or beverages, a small, low cost unit will be adequate for this purpose. The refrigerator would be preferably coated with enamel in a color designed to match that of the cabinet, or alternatively the exterior portions could be covered with the same material used in the overall cabinet structure.

Referring now to FIGURE 5, the details of the overbed table **65** are illustrated in a front view of the table adjusted to a raised position. A support member **111** is firmly attached to the bottom surface of the table member by any conventional means. A tubular support receptacle **109** is attached to the frame of the cabinet. Connecting these support members is a reinforcing rod **107** having a 90° bend at its upper extremity where it connects to support member **111** through an opening therein. Adjustment to any desired height is provided by raising rod **107** vertically through tubular member **109** to the desired height, then rotating it over the bed where it is clamped into position by screw **113**.

A side view illustrating the overbed table adjusted to a tilted position is shown in FIGURE 6. Tilting could be provided by a tight frictional fit between rod **107** and the opening in support member **11** or by any suitable means known in the art.

In the invention heretofore described, it is contemplated that the therapeutic unit would be located approximately

10 to 12 inches from the beds on either side to enable the patients to utilize the self-help unit in either the prone or a sitting position. It is obvious, however, that a similar one-sided unit constructed in accordance with the present invention could be employed in private rooms or with single patients. The unit would be approximately 32 inches in height, with the swing-out table adjustable to any desired height. While the unit can obviously be fabricated of any suitable material such as wood or metal, a preferred construction which provides an attractive appearance to the overall cabinet structure is Formica.

Summarizing the foregoing, the present invention provides a therapeutic device for use in a rehabilitation program directed to self help. Through use of the invention, the nursing demands of a patient can be virtually eliminated or substantially reduced. The importance of such a reduction in requirement of skilled personnel and resultant lower cost are self evident. The results of a rehabilitation program made possible by use of the present invention in terms of restoration of function and improved morale of the patient are immeasurable.

While the present invention is primarly intended for use in a rehabilitation program for terminal or long-term patients, the advantages of the invention are further applicable to short-term patients, since the convenience of having such facilities available assists in preserving the patient's self identity. Finally, use of the subject invention permits a much smaller room than would be required for corresponding facilities. A dual saving in floor space and cost of corresponding conventional equipment providing the same service is thus afforded.

While the invention has been particularly shown and described with reference to a preferred embodiment thereof, it will be understood by those skilled in the art that the foregoing and other changes in form and details may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. A therapeutic device adapted to provide self-help service to a patient in a convalescent rehabilitation program comprising in combination a cabinet structure, said cabinet structure being positioned adjacent the bed of the patient being serviced, said cabinet structure generally rectangular and including a plurality of compartments, said compartments including storage units, a disposal facility mounted in one of said compartments, washing facilities including a sink and controlled temperature water supply, said sink being mounted on the upper surface and at one end of said cabinet structure, a table connected to said cabinet and mounted flush with the upper surface thereof, said table being rotatable and adjustable about a fixed point on said cabinet over the bed of the patient serviced thereby, and a control and signal device mounted on the exterior surface of said cabinet.

2. A device of the character claimed in claim **1** wherein one of said storage units is refrigerated.

3. A device of the character claimed in claim **1** further including a rotatable closure member for one of said compartments, tissue dispensing facilities and hygienic facilities being mounted on opposite side of said closure member.

4. A therapeutic device adapted to service a patient in a convalescent rehabilitation program, said device comprising a relatively rectangular cabinet structure mounted adjacent the bed of the patient serviced thereby, a washing facility mounted in said structure, a plurality of storage compartments, one of said storage compartments being refrigerated, a waste disposal unit, a rotatable closure member for one of said compartments, a tissue dispensing unit mounted on one side of said closure member, hygienic facilities mounted on the opposite side of said closure member, a table connected to said cabinet structure, said table having its upper surface flush with the upper surface of said cabinet structure and adapted to fit within a recess in the top of said cabinet structure, said table

being rotatable about a fixed point on said cabinet over the bed of the patient serviced thereby, means for adjusting the height and position of said table, electrical outlets mounted on the exterior surface of said cabinet structure for the use of small appliances by said patient and an electronic control and communication unit mounted on the exterior surface of said cabinet structure, said unit providing signal communication between the patient and members of the medical staff.

5. A device of the character claimed in claim 4 adapted to service a pair of patients, said device being adapted for positioning between the beds of the patients serviced thereby and the facilities thereon being duplicated on opposite sides of said cabinet structure for each patient.

6. A device of the character claimed in claim 4 further including a plurality of pass-through shelves interconnecting opposite sides of said cabinet structure.

References Cited by the Examiner

UNITED STATES PATENTS

745,574	12/1903	Craig	312—282 X
948,728	2/1910	Hendricks	312—286 X
951,247	3/1910	Kane	108—94
1,452,117	4/1923	Holmes	312—286
1,453,121	4/1923	Benner	312—286
1,463,701	7/1923	Holton	108—65 X
1,786,823	12/1930	Carrington	312—194
2,000,981	6/1935	Parsons	312—236 X
2,690,372	9/1954	Kelly	312—286
2,894,794	7/1959	Mays	312—209 X

CLAUDE A. LE ROY, *Primary Examiner.*

CHANCELLOR E. HARRIS, FRANK B. SHERRY, *Examiners.*