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HOLDER FOR CLIPBOARD MOUNTED HOSPITAL CHARTS

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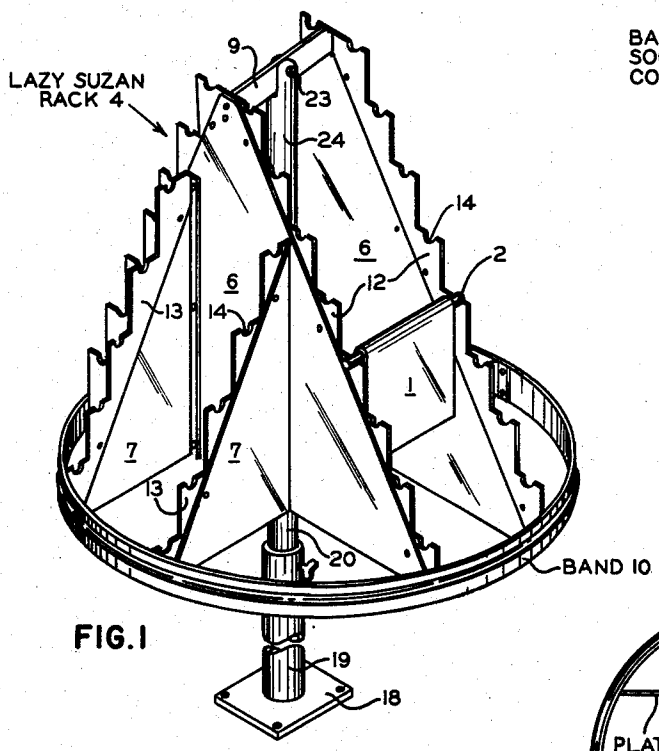


FIG. 1

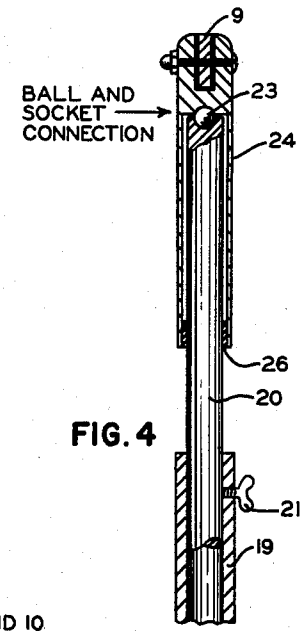


FIG. 4

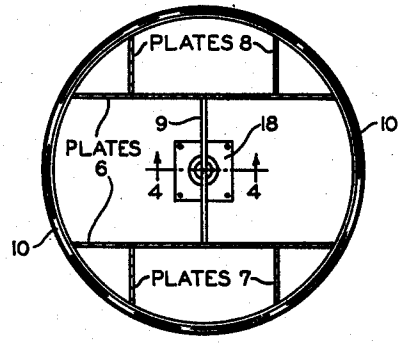


FIG. 3

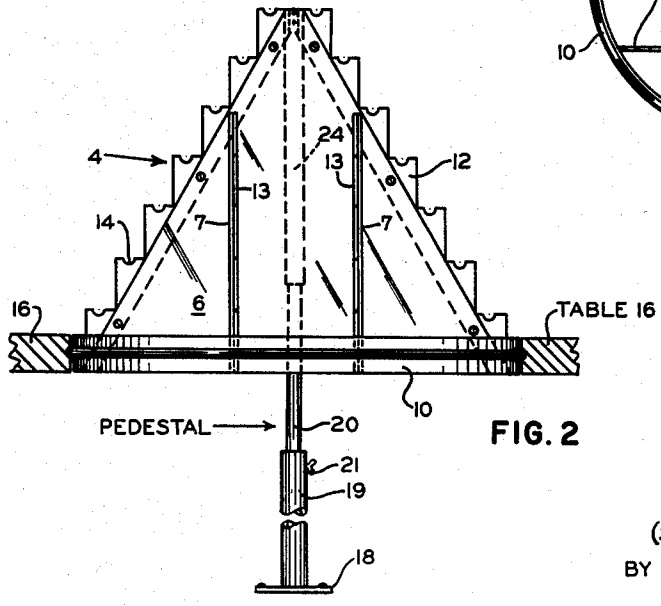


FIG. 2

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HOLDER FOR CLIPBOARD MOUNTED HOSPITAL CHARTS

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8 Claims. (Cl. 40—68)

This invention relates to an improved holder for clipboard-mounted hospital charts.

Most hospitals record the hour-by-hour and day-by-day treatment, condition and progress of each patient on a chart which is individually allotted to that particular patient. Each of these charts is normally mounted on a metal clipboard having trunnions projecting from opposite ends of its top margins. All charts, for a given section of a hospital, which may include all or part of an entire floor, are kept in a chart room which is conveniently accessible to doctors and nurses. Here they are hung on a rack-like holder. Usually there are three or four of such holders serially arranged one after another in side-by-side relationship to form a bank.

The conventional holder comprises: a frame; and a spaced pair of step-forming members, each having an upper edge which is forwardly declined or rearwardly inclined at a steep angle and stepped to support, in cooperation with the other step-forming member of the same pair, a sloped or terraced row of clipboard-mounted charts. With this arrangement, each clipboard has its upper front margin, which displays the patient's name, exposed to view over the upper end of the next lower clipboard. A nurse, who must make entries in one or more charts, normally stands in front of the rack-like holder, selects and removes the appropriate chart, sits down to make her entries and then rises to return the chart. These movements may be repeated by that particular nurse many times a day for each of many different patients. The necessity of rising and sitting down, repeatedly during the day for chart entry purposes is very fatiguing. The fatigue attending this operation is necessarily increased when, as is often the case, two or more nurses are simultaneously working in front of a bank of rack-like holders where they are bound to get into each other's way from time to time. It is additionally increased by the presence of one or more doctors who, in trying to select and examine one or more charts, are also bound, from time to time, to interfere with the work of the nurses.

The principal object of this invention is to provide an improved holder or rack which substantially lessens the work and interference normally involved in working on hospital charts and the fatigue caused thereby.

Another important object is to provide a rack-like holder which permits several people to work from it without serious interference even when one or more doctors are also present.

Another important object is to provide a simple and sturdily constructed rack for holding three or four rows of charts in a manner permitting the nurses to select the charts and make entries without moving from a sitting down position which also enables other nurses to operate in the same way at the same time and which additionally enables one or more dictors to select charts without causing substantial interference.

I have found that it is possible to mount at least four rows of charts on a rotating "lazy susan" type of structure

and to place these charts at an elevation which permits each of several nurses, simultaneously working on the rack, to remove and replace each individual chart of the entire assembly of racks either without the necessity of rising even for the uppermost charts or with the necessity of rising only for a relatively small percentage of the total number of charts which are racked. With a "lazy susan" arrangement of appropriate size at, what may be termed a "sit-down" elevation, it is not only possible for several nurses to work before the rack with a minimum of fatigue but it is also possible for one or more doctors to select, remove and replace charts while occasioning little or no interference with the work of the nurses.

The invention is illustrated in the accompanying drawings wherein:

Fig. 1 is a perspective view of the novel rack with a hospital chart clipboard hanging on it;

Fig. 2 is an elevational view of the rack;

Fig. 3 is a plan view of the rack; and

Fig. 4 is a vertical section taken on line 4—4 of Fig. 3.

The all metal structure illustrated in the drawings includes: a hospital chart clipboard; a lazy susan rack for holding a plurality of clipboards; and a pedestal for rotationally supporting the rack.

Clipboard

The conventional hospital chart clipboard **1**, shown in the drawings, includes a pair of outwardly-stretched horizontally-aligned trunnion-like arms **2** extending from opposite ends of the top margin of the clipboard **1**. The remaining structure of the conventional clipboard **1**, such as the means for mounting a hospital chart on it, is not shown or described since it is not necessary for an understanding of the invention.

The clipboard **1** is conventionally supported by resting its outwardly-stretched arms **2** on the horizontally-spaced supports of the hospital rack.

Lazy susan rack

The lazy susan rack **4** is in the form of a 4-sided "lazy susan" having means, on each side, for supporting one terraced row of clipboards **1**. However, it will be understood that a lazy susan type of rack may well have a different number of sides, this being a matter of choice or selection. The lazy susan rack **4** illustrated, comprises: a frame; and spaced pairs of step-forming means.

The frame includes 3 pairs of vertically-arranged horizontally-spaced triangular plates; and means uniting these plates into a rigid structure having four outwardly declined or inwardly inclined sides, each side being characterized by a pair of horizontally-spaced upwardly-inclined edges which slope from a broad base area upwardly and inwardly toward a relatively small top area.

The 3 pairs of triangular plates, included in the frame, are respectively designated by the numerals **6**, **7** and **8**. Each of the vertically-arranged horizontally-spaced plates **6** of one pair is in the form of an isosceles triangle having inner and outer faces. They are vertically-arranged in horizontally-spaced parallel relationship with their bases horizontal and their inner vertical faces opposed to each other. Since each plate **6** is in the form of an isosceles triangle, it may be viewed as being composed of two back-to-back right angle triangles, each having its "sine" side upright, its "cosine" side horizontal and its hypotenuse side upwardly inclined.

The vertically-arranged horizontally-spaced triangular plates of both of the remaining pairs **7**, **8** are also in the shape of right angle triangles. They also have their sine sides upright, their cosine sides horizontal and their hypotenuse sides upwardly inclined. The sine sides of one pair of plates **7** is rigidly secured to the outer face of one of the plates **6** while the sine sides of the other pair

8 is rigidly secured to the outer face of the other plate 6. Each of the plates 7 and 8 may be as tall as the plates 6 but preferably its sine and hypotenuse sides terminate adjacent the point where its hypotenuse side intersects the adjacent plate 6.

It will thus be seen that the four hypotenuse sides of the two plates 6 provide two oppositely disposed upwardly sloping sides of the rack, each side being characterized by one pair of horizontally-spaced upwardly sloped edges, while the four hypotenuse sides of the four plates 7 and 8 cooperatively provide the other two oppositely disposed upwardly inclined sides of the rack. These plates are united into a rigid structure by means of a cross bar 9 rigidly interconnecting the tops of the plates 6 and an encircling band 10 rigidly interconnecting the outer lower ends of all plates.

The step-forming means comprises: four long stepped or stair-forming serrated strips, one for each of the four hypotenuse edges provided by the two plates 6, each strip 12 being positioned to extend along one hypotenuse edge and being rigidly secured to the adjacent plate; and four short step-forming strips 13, one for each of the four hypotenuse edges collectively provided by the four plates 7 and 8, each being positioned to extend along one such hypotenuse edge and being rigidly secured to the adjacent plate. Each step, of each of these strips, is provided with a notch 14 to receive one arm 2 of a clipboard.

Rotational support of lazy susan rack

The lazy susan rack may be rotationally supported in any suitable way. For example, it may be conveniently supported in a rotational manner on the table 16 at which the nurses sit in making their entries on the hospital charts. As will be seen in Fig. 2, this table is circularly cut out to receive the frame band 10 and, as will be obvious, such band could readily be rotationally supported for easy rotation thereon through suitable bearings. Preferably, however, the table is rotationally supported on a centrally disposed upright pedestal for rotation about the vertical axis thereof.

The pedestal comprises: a base plate 18 rigidly secured to the floor; a vertically adjustable upright having a lower pipe 19 rigidly secured to the base plate, an upper rod 20 telescopically mounted in pipe 19 for vertical adjustment to a desired elevation and a screw 21 for setting the rod 20 in any vertical position to which it may be adjusted; and means rotationally supporting the rack on the upper end of the pedestal.

While any means may be utilized to support the rack on the upper end of the pedestal, a simpler structure results when the upper end portion of the rack is supported on the upper end of the pedestal. I prefer to effect this support through a ball and socket joint comprising: a ball 23 at the upper end of the rod 20 and a socket 24 inverted over the ball with its upper end secured to the cross bar 9 by means of pin 25. While the ball 23 may be an integral part of the rod 20, it preferably is the form of a separate ball bearing resting in a semi-spherical depression in the upper end face of rod 20. The socket 24 preferably is in the form of an elongate cylinder closed at its upper end to provide an end face, which is also semi-circularly notched to receive the ball 23, and open at its lower end to fit snugly around the rod 20 for the purpose of preventing the rack from wobbling on the rod, spacers 26 being provided at the lower open end of sleeve 24 for close fitting purposes.

Before passing, it may be noted that the pedestal preferably supports the lazy susan rack at an elevation such that the upper end of the bottom clipboard of each row is positioned adjacent the top of the table at which the nurses sit in making entries on the charts of this rack. Using this arrangement with a circular or a square table, which is accessible throughout its periphery, four nurses can sit at 90° intervals around this table without interfering with each other or with any of as many as four doctors who may be sandwiched therebetween. All of the clipboards, in any row immediately in front of any of those four nurses, can be removed from and replaced on the rack by that particular nurse without requiring her to rise at any time. Furthermore, little effort is required of any one nurse to rotate the lazy susan rack in order to place any one of the four rows before her. It will be appreciated that the foregoing remains true when more than four nurses simultaneously sit at the table although naturally the number that can sit there without crowding each other is at best limited to 8. However, the occasion seldom arises which requires more than four nurses to work on the chart rack at any one time.

Where the chart rack is used in connection with a rectangular table having provisions for seating three nurses along any one accessible straight side, the center nurse may reach all clipboards in any row placed immediately in front of her without rising. This will also normally be true for each of the other two adjacent nurses although, in some cases, one or the other may have to rise to remove or replace the clipboards supported on the uppermost portion of the rows provided by the large plates 6.

Having described my invention, I claim:

1. A holder for clipboard-mounted hospital charts comprising: a multi-sided lazy susan rack for supporting a terraced row of clipboards on each of two or more sides, said rack including a frame formed by at least two pairs of vertically arranged horizontally spaced triangular plates, each pair of said plates being parallel to each other, each plate having an outwardly declined serrated upper edge to provide, in cooperation with the other plate of the same pair, a stepped or terraced support for the clipboards for one of said terraced rows, each plate of one pair of plates being in the form of an isosceles triangle having inner and outer faces, and means uniting these plates into a rigid structure having at least two outwardly declined sides, each characterized by a pair of horizontally spaced upwardly inclined serrated edges; and means supporting said rack for rotational movement about a vertical axis.

2. The holder of claim 1 wherein: each plate of a second pair of said triangular plates is in the form of a right angle triangle having sine, cosine and hypotenuse sides and is arranged with its sine side upright and secured to the outer face of one of said pair of plates which is in the form of an isosceles triangle.

3. The holder of claim 2 wherein: each plate of a third pair of said triangular plates is in the form of a right angle triangle having sine, cosine and hypotenuse sides and is arranged with its sine side upright and secured to the outer face of the other of said pair of plates which is in the form of an isosceles triangle.

4. The holder of claim 3 wherein said frame includes: a cross member interconnecting the upper ends of said isosceles plates; and an encircling band interconnecting the outer lower ends of all plates.

5. A holder for clipboard-mounted hospital charts comprising: a multi-sided lazy susan rack for supporting a terraced row of clipboards on each of two or more sides, said rack including a frame having at least two pairs of step-forming means, each pair being composed at spaced parallel step-forming members, and each member having an outwardly declined upper edge stepped to provide, in cooperation with the other step-forming member of the same pair, a terraced support for the clipboards of one of said terraced rows; an upright extending centrally upward into said lazy susan rack; and thrust bearing means rotationally connecting the upper end portion of said rack to the upper end portion of said upright for supporting said rack on said upright for rotational movement about a vertical axis.

6. The holder of claim 5 wherein: said thrust bearing

means comprises a ball and socket connection between the upper ends of the upright and the rack.

7. A clipboard-mounted hospital-chart holder adapted to be mounted on a base, comprising: a multi-sided lazy susan rack for supporting a terraced row of clipboards on each of two or more sides, said rack having a vertical axis and including a frame having at least two pairs of step-forming means, each pair being composed of spaced parallel step-forming members, and each member having an outwardly declined upper edge stepped to provide, in cooperation with the other step-forming member of the same pair, a terraced support for the clipboards of one of said terraced rows; and means centered on the vertical axis of said rack to support said rack on said base for rotational movement about said axis, and bearing means interposed between said rack and said supporting means.

8. The holder of claim 7 wherein: said supporting

means includes an upright extending centrally upward into said rack and means connecting the rack to the upright in such manner as to cause a weight-load of the rack to be transmitted through the upright to said base, said interposed bearing means being operative between the upright and the rack so that said weight-load also passes through said bearing means.

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