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Damico

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[54] **LIGHTING ARRANGEMENT**

[75] Inventor: **Frank M. Damico,** Hull, Wis.

[73] Assignee: **Joerns Furniture Company,** Stevens Point, Wis.

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[52] **U.S. Cl.** ..... **240/2 R,** 240/52 BL, 240/2 W

[51] **Int. Cl.** **F21v 33/00**

[58] **Field of Search** ..... 240/1.4, 2 R, 2 W, 41.15, 240/52 BL, 73 BC, 103 R

[56] **References Cited**

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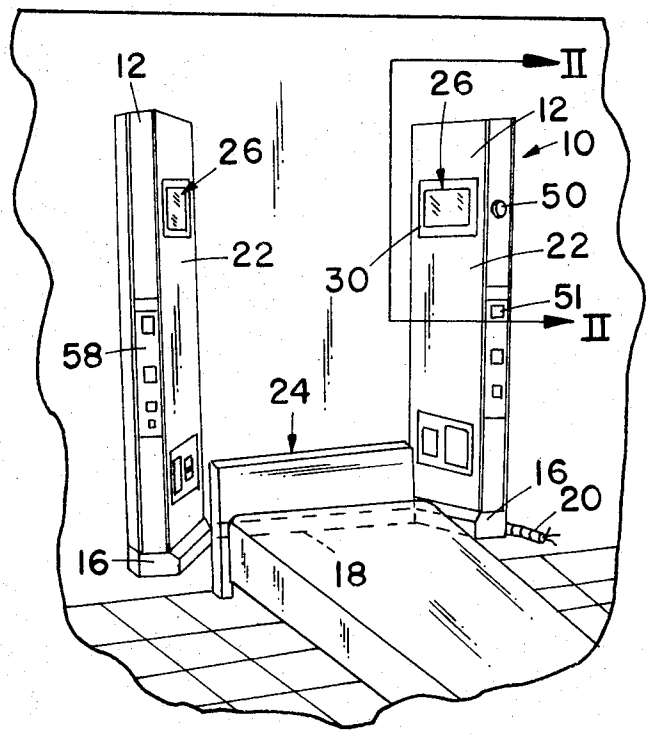
Primary Examiner—Richard M. Sheer

Attorney, Agent, or Firm—Price, Heneveld, Huizenga & Cooper

[57] **ABSTRACT**

A lighting arrangement in a hospital bed service unit. The service unit is adapted for hanging on the wall in the hospital room and includes a window in the upper portion through which light from a light source is projected. A pair of lamps are mounted in the service unit one of which is arranged to direct light upwardly through the window toward the ceiling to indirectly illuminate the room. The other lamp is arranged to direct the light through the window downwardly toward a bed for examination and reading purposes. Intensity control switches are mounted on the service unit and are connected to the downwardly directed lamp to vary the intensity of the light therefrom so that it may be adjusted from a full high intensity light for examination purposes to a variable desired intensity light for reading and other purposes.

6 Claims, 4 Drawing Figures



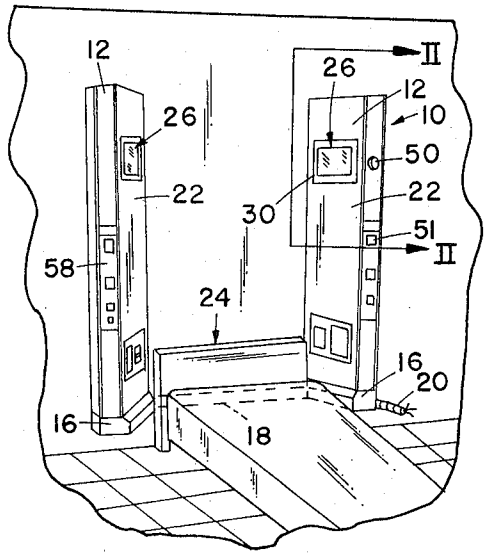


FIG 1

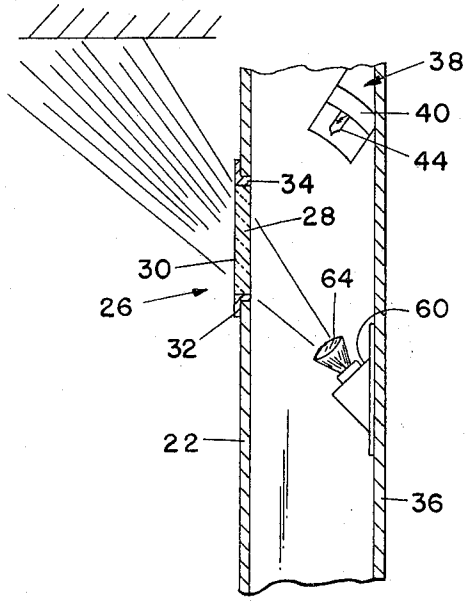


FIG 4

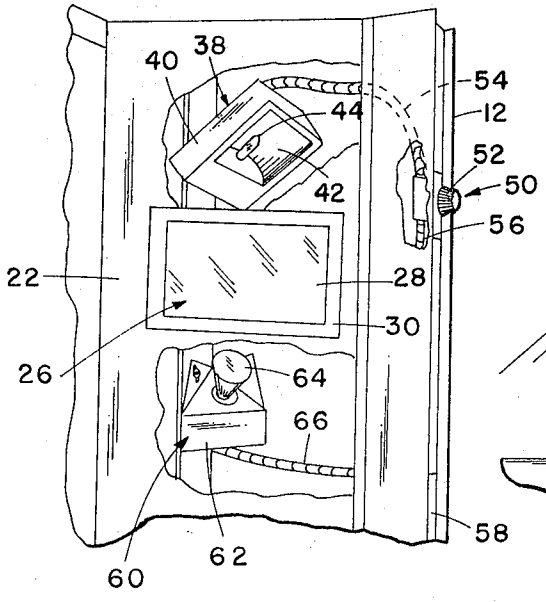


FIG 2

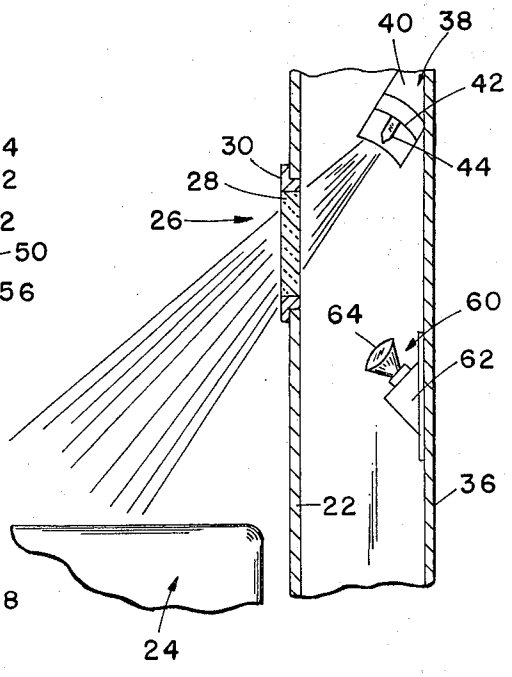


FIG 3

LIGHTING ARRANGEMENT

BACKGROUND OF THE INVENTION

Hospital beed service units mountable on a wall in a hospital room proximate a bed are used to provide technical facilities such as electrical outlets and lighting to the bed location. Typically, the service unit includes a pair of pylons and a wall module support bracket having shelves for supporting the pylons. The pylons contain electrical outlets and observation, examination, reading, indirect and night-light lighting facilities. The pylons rest on a support bracket extending upwardly adjacent each side of the bed headboard. One system of this type is disclosed in a commonly assigned copending application Ser. No. 380,356 entitled HOSPITAL BED SERVICE UNIT, filed on the same date as this application and incorporated herein by reference.

In some prior art service units, separate light sources are provided for examination, indirect lighting and reading lighting. Such separate facilities, however, add not only to the total cost of the service unit, but also increase its total weight, thereby making its mounting difficult and requiring heavy duty mounting brackets and the like therefor. In addition, the additional components required for the separate lighting, are additional possible areas for failures to occur thereby significantly adding to the overall maintenance costs.

SUMMARY OF THE INVENTION

The combination lighting assembly of the present invention improves upon the lighting systems of the prior art and is specifically adapted for use in a hospital bed service unit of the type described in the above-identified, commonly assigned, copending application. The lighting unit of the present invention fits in such a service unit, the service unit including a window in one wall thereof, having a lens thereover, wherein the improved lighting means includes a pair of lamps fixed in the service unit. One of the pair of lamps is adapted to direct light through the lens generally upwardly toward the ceiling to indirectly illuminate the room. The other of the pair is adapted to direct light through the lens generally downwardly toward the bed which is positioned adjacent the service unit. Intensity control switches are mounted on the service unit and are operatively connected to the downwardly directed light to vary the intensity of the light from a high intensity, for examination purposes, to a variable desired intensity for reading and like purposes.

The many objects and advantages of the present invention will be readily appreciated by those skilled in the art as the invention becomes better understood by reference to the following detailed description and the accompanying drawings illustrating a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a fragmentary perspective view illustrating a typical hospital bed and service unit arrangement in which the present invention is utilized;

FIG. 2 is a fragmentary perspective view partially broken away illustrating the lamps mounted in the service unit;

FIG. 3 is a somewhat schematic cross-sectional view showing the arrangement of the examination and reading lamps; and

FIG. 4 is a somewhat schematic cross-sectional view illustrating the lamp directed upwardly for indirectly lighting the room.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, FIG. 1 is a perspective view of a hospital bed service unit incorporating the lighting system of the present invention. The service unit **10** is of the type described in the above-mentioned commonly assigned copending application entitled HOSPITAL BED SERVICE UNIT. As therein described, the service unit includes a pair of spaced substantially identical pylons **12** supported on the horizontal shelf portion **16** of a wall-mounted support bracket **18.** Pylons **12** each carry electrical outlets, suitable switches therefor, speakers, night lights, and the like all as described in the above-identified application. The pylons are adapted for connection by means of an electrical supply line **20** to an external electrical source. The pylons are electrically connected to each other through suitable hidden wiring passing through the mounting bracket **18** so that either one of the pylons may be connected to the supply source.

Pylons **12** are elongated and have inwardly facing wall surfaces **22** arranged either side of a bed **24** in the hospital room. The headboard of the bed is positioned between a pair of adjacent pylons. A rectangular window **26** is formed in wall **22** in the upper portion of each pylon. The window opening is covered by a lens **28** of glass, plastic, or the like. The lens is held in position in the window opening by means of a rectangular frame **30.** The frame includes an outer flange **32** which abuts wall **22** and an inwardly directed flange **34** having spring clips or the like thereon to hold the frame and lens in the window opening. A pair of lamps are positioned within the generally hollow interior of pylons **12** adjacent a back wall **36** spaced from wall **22** having the window openings therein.

A high-intensity lamp assembly **38** is positioned adjacent back wall **36** near the top extremity of the pylons. The high-intensity lamp includes a housing **40** mounted in the pylon at an angle with respect to walls **22** and **36.** The housing includes a reflector surface **42** for directing the light rays from a light element **44** through lens **28** and downwardly toward the bed.

An intensity control element **50** of conventional solid state construction is mounted on one of the pylons at an outer edge thereof and includes a knob **52** which may be rotated to vary the intensity of the output of high-intensity lamp assembly **38.** Suitable electrical wiring **54** is provided to operatively connect lamp **38** to intensity control **50.** Intensity control switches **50** comprising switches **51** and **52** is in turn connected via wiring **56** through a switch panel **58** and to supply line **20** to an external power source.

As shown in FIG. **3,** lamp assembly **38** is positioned within pylon **12** such that the light rays emitted therefrom are directed through the window opening generally downwardly onto the surface of a bed. Preferably, each pylon includes a similar high-intensity light **38** and wiring means (not shown) are provided between the pylons to interconnect the two lamps. Intensity control switches **51** and **52** are connected to each of the lamps

and therefore adjust the intensity thereof. Intensity control switch **52** is a solid state rheostat type control. Switch **51** bypasses switch **52**. When intensity control switch **52** is bypassed, highest illumination of the lamps is provided, in which event the lamps are generally used for examination purposes since the light brightly illuminates the bed area. Lower intensity adjustments of lamps **38** are used for reading and like purposes. This is accomplished by simply rotating knob of switch **52** on intensity control **50.** It should be noted that switch panel **58** includes a number of switches and suitable wiring is provided from these switches to the lamps and the intensity control such that one or the other of the lamps may be turned off if desired. The switch **51** is used to bypass the intensity control and obtain examination lighting.

A second lamp assembly **60** is positioned adjacent back wall **38** below the window opening **26** and includes a housing **62.** The housing carries conventional base elements to receive a second light element **64** which is preferably a spot or flood-light type of lamp. As shown in FIG. **4,** lower lamp assembly **60** is positioned so as to direct light rays emitted therefrom upwardly through lens **28** toward the ceiling of the room to thereby provide indirect lighting of the room. Lamp assemblies **60** are provided in each pylon **12** and may be connected by suitable wiring **66** to switches in panels **58** for selective operation thereby.

It may therefore readily be seen by those skilled in the art that the combination lighting assembly in the present invention provides an improved lighting system for use in a hospital bed service unit. Lamps in each pylon service unit are adapted to project light therefrom to provide both indirect lighting for the room and additionally light for examination, reading, and other purposes on the bed. The lighting assembly of the invention, because of its minimal number of component parts, reduces the total weight of the service unit and in addition great savings are realized in the cost of manufacturing and in the costs of operation of the service unit. Other modifications and variations will be suggested to those skilled in the art without departing from the scope of the invention as defined by the following claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows.

1. In a hospital bed service unit adapted for positioning on the wall of a hospital room proximate a hospital bed and having lighting means for illuminating the room and the bed for examination and reading purposes, said service unit including opposing walls defining a generally hollow interior, at least one of said walls having a window opening therein, a lens within said window opening and means for connecting said lighting means to a source of power, the improvement in said lighting means comprising: at least two light means and means for mounting the same within the hollow interior of said service unit, one of said light means being mounted in a position to direct light through said lens and generally upwardly to indirectly illuminate the room; the other of said light means being mounted in a position to direct light through said lens generally downwardly toward a bed positioned proximate said service unit.

2. The service unit of claim **1** and further including intensity control means mounted on said service unit; and means operatively connecting said intensity control means to said other of said light means, said intensity control means being operable to vary the intensity of the light directed downwardly from a high intensity for examination purposes to a low intensity for reading and like purposes.

3. The improvement of claim **2** wherein said service unit is elongated and wherein said window is located adjacent the upper extremity thereof.

4. The improvement of claim **3** wherein said window opening is rectangular in shape, the longer dimension of said window extending transverse to the elongated length of said service unit.

5. The service unit of claim **2** and further including switching means mounted on said service unit and means operatively connecting said switching means to each of said light means whereby each said light means may be independently controlled.

6. The improvement of claim **2** in which the intensity control means includes a rheostat type control switch for varying the intensity of the light for reading and a bypass switch for bypassing said rheostat type switch to give maximum illumination for examintion purposes.

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