

May 1, 1962

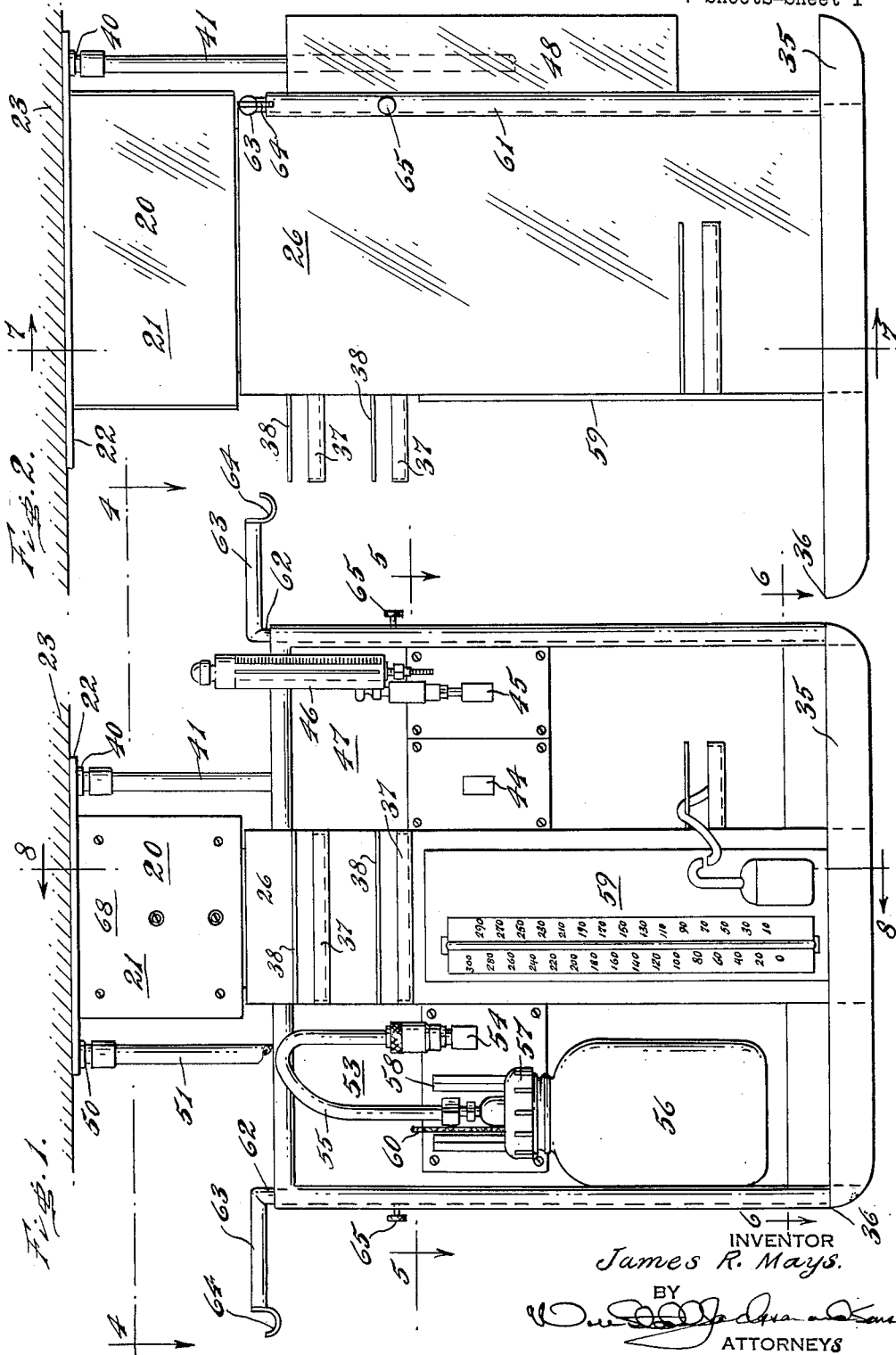
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HOSPITAL RECOVERY SERVICE UNIT

Filed May 8, 1959

7 Sheets-Sheet 1



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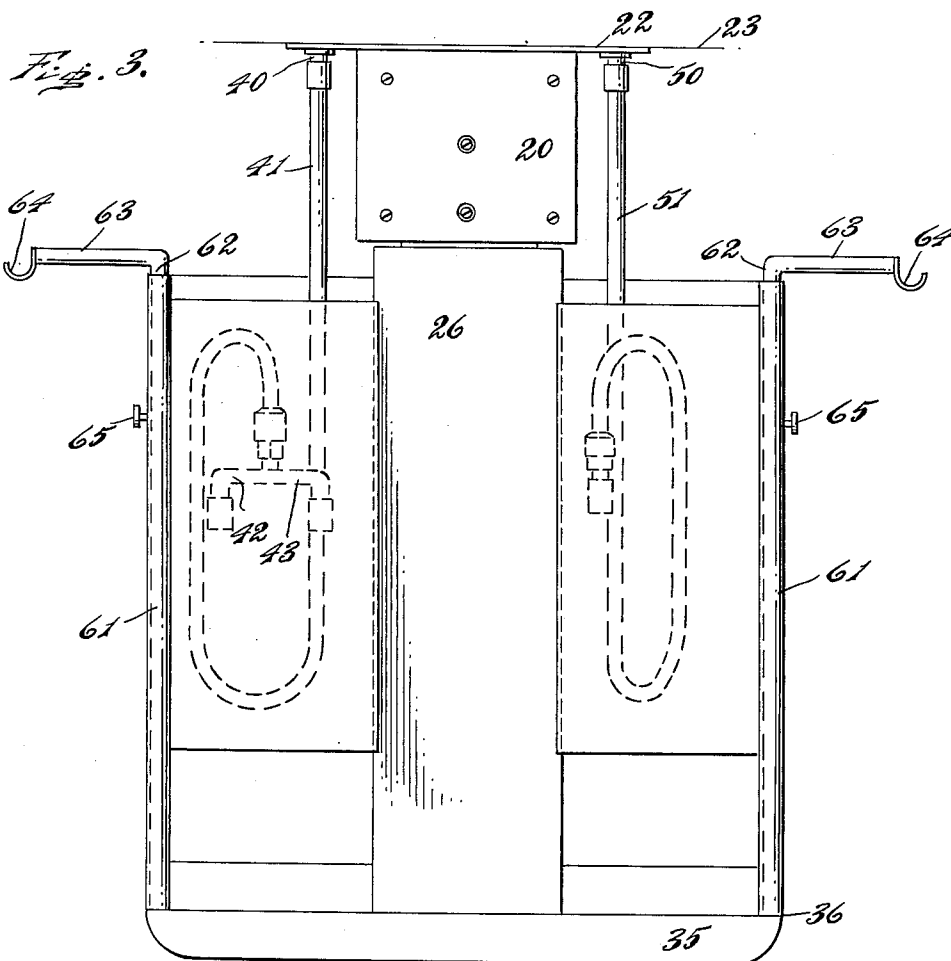
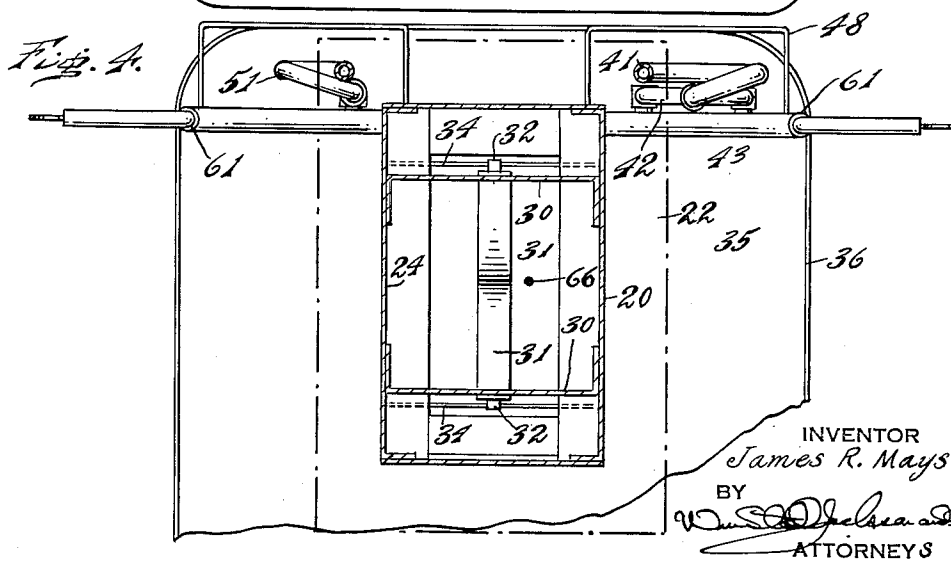
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HOSPITAL RECOVERY SERVICE UNIT

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7 Sheets-Sheet 2



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HOSPITAL RECOVERY SERVICE UNIT

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Fig. 5.

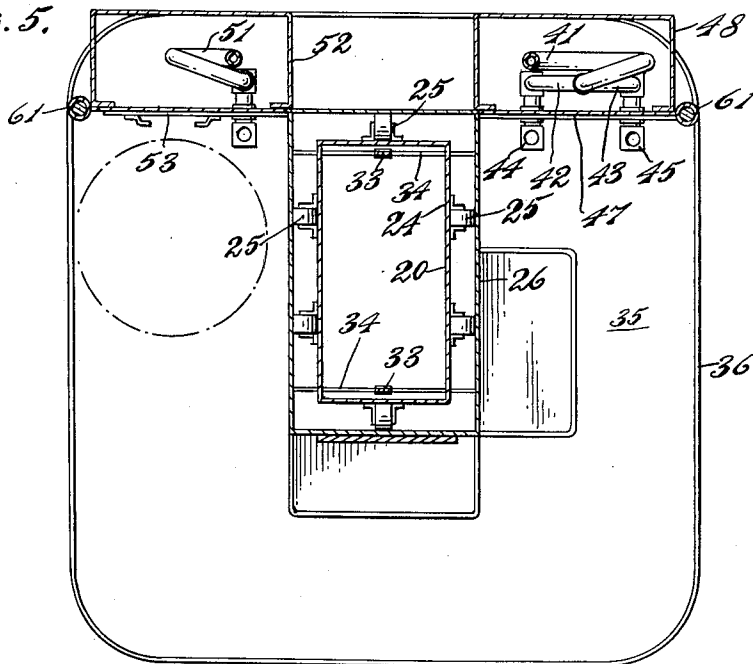
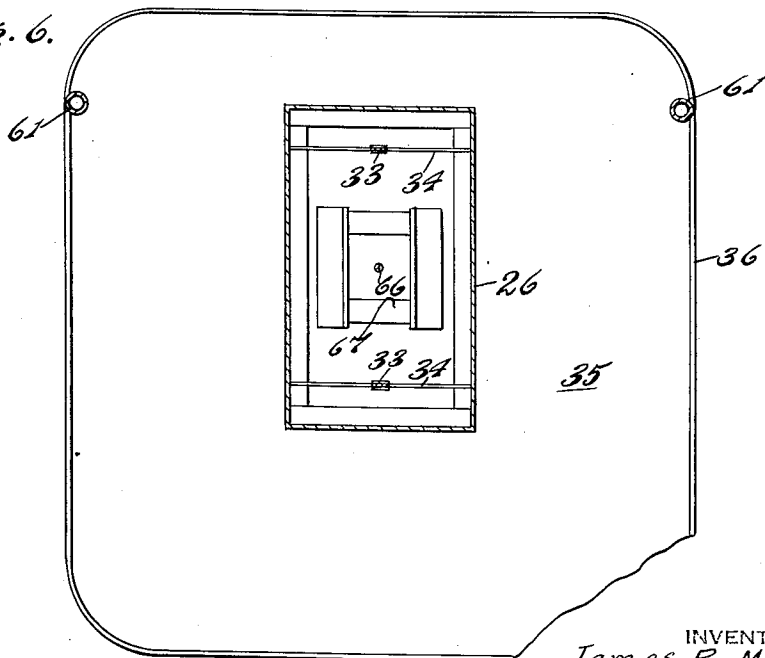


Fig. 6.



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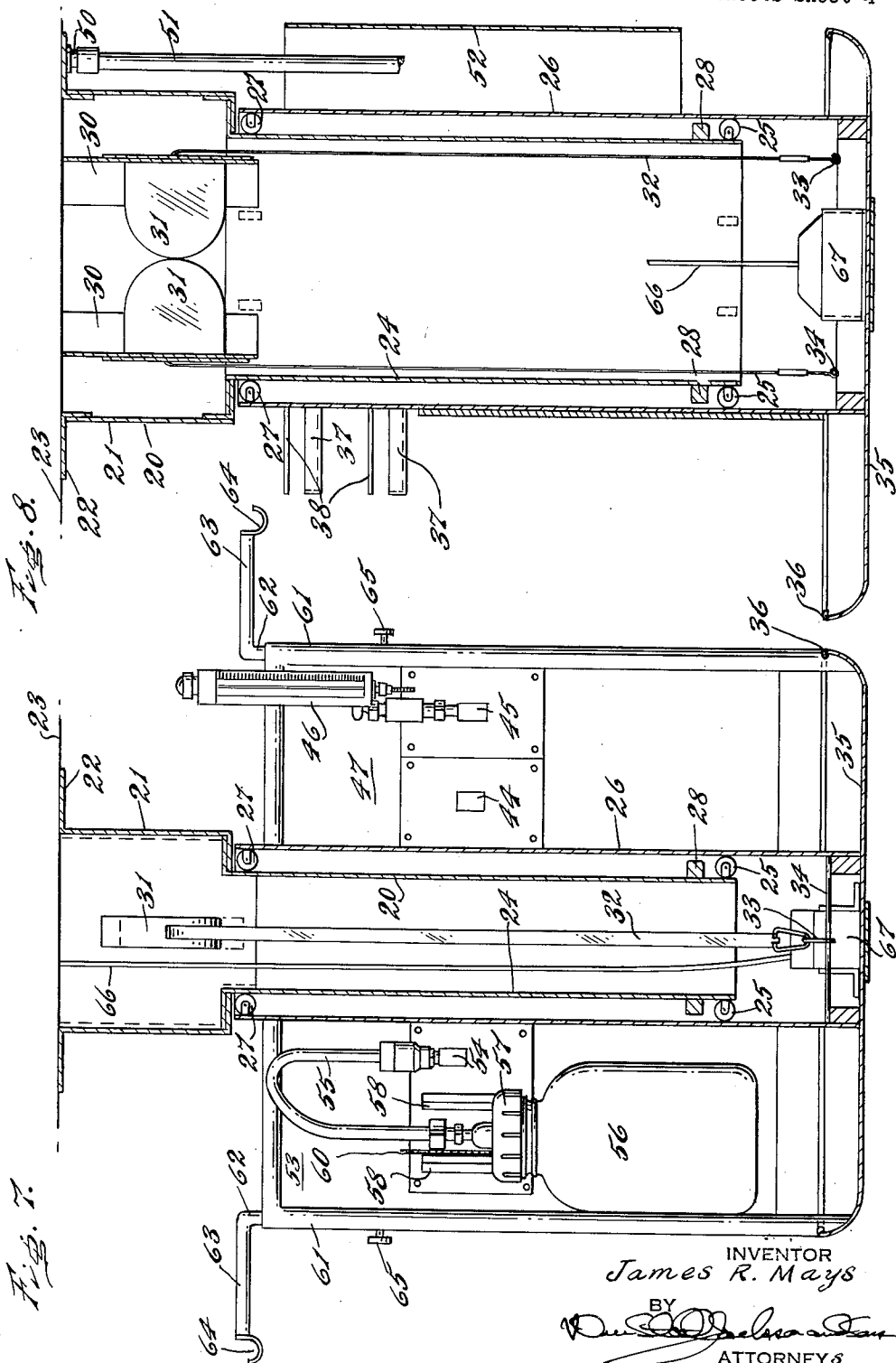
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HOSPITAL RECOVERY SERVICE UNIT

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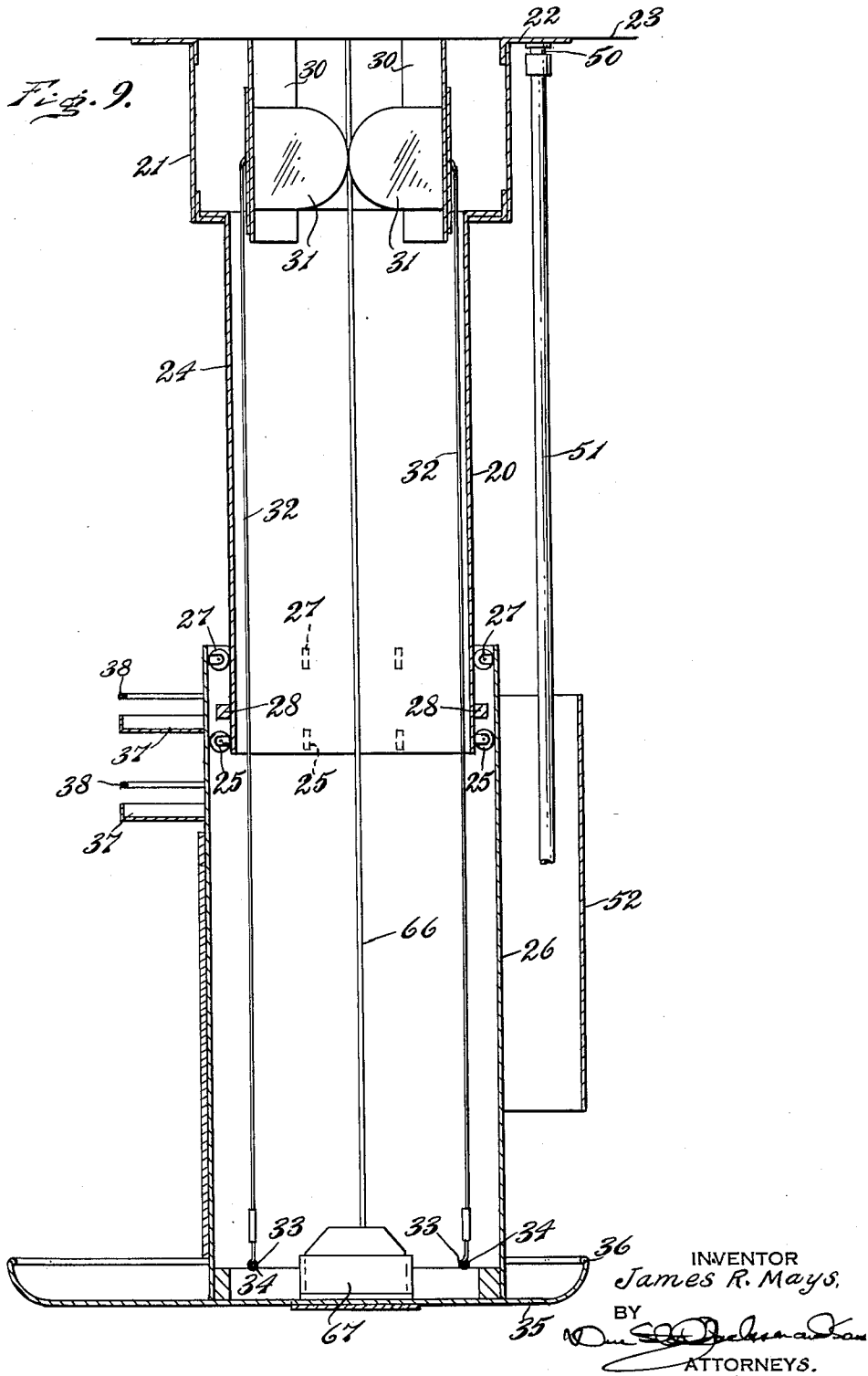
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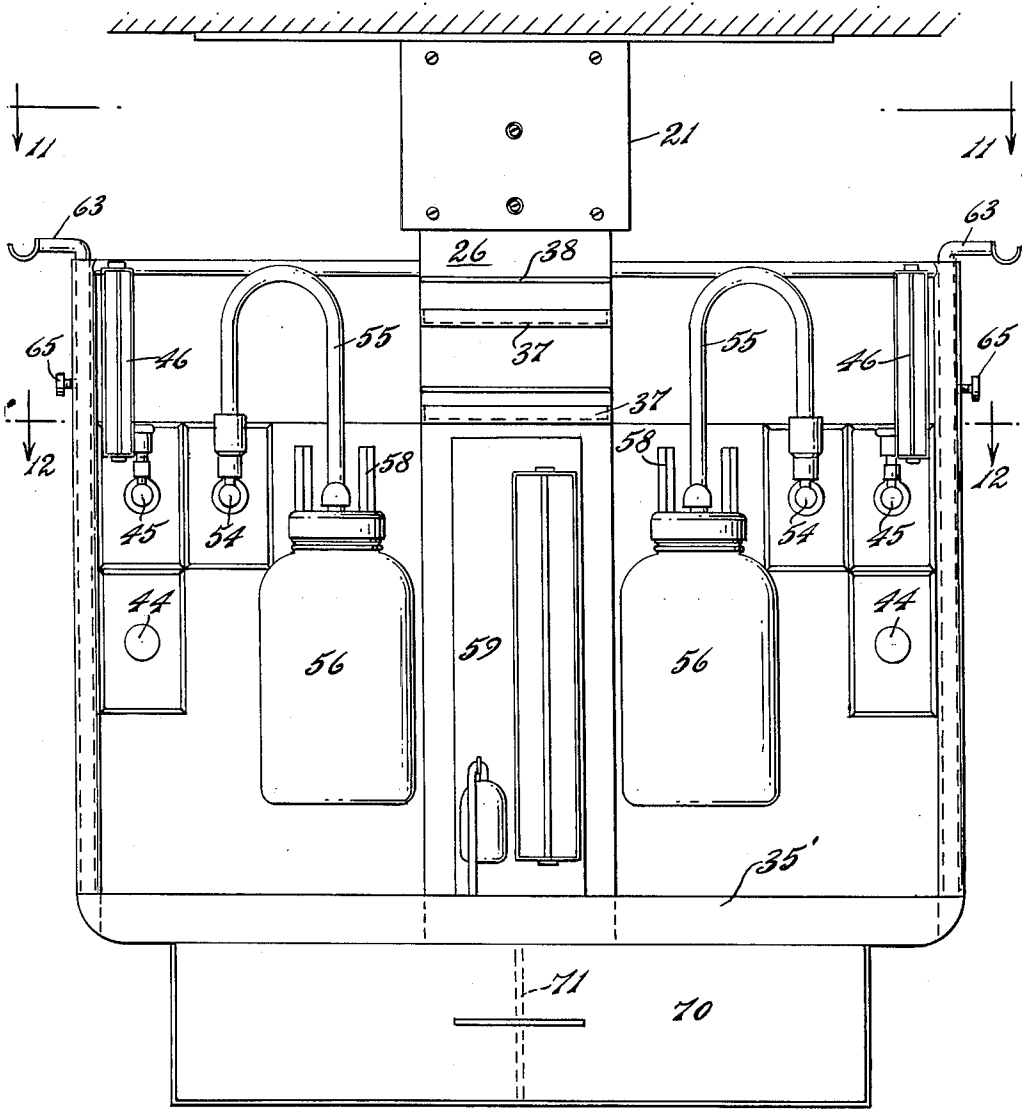


Fig. 10.

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Fig. 11.

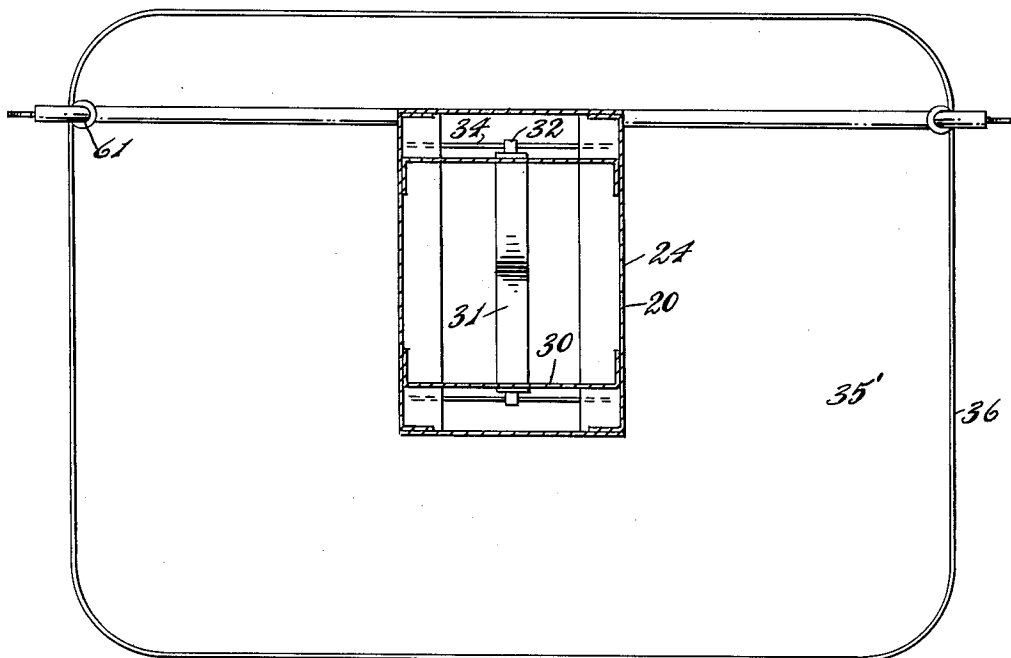
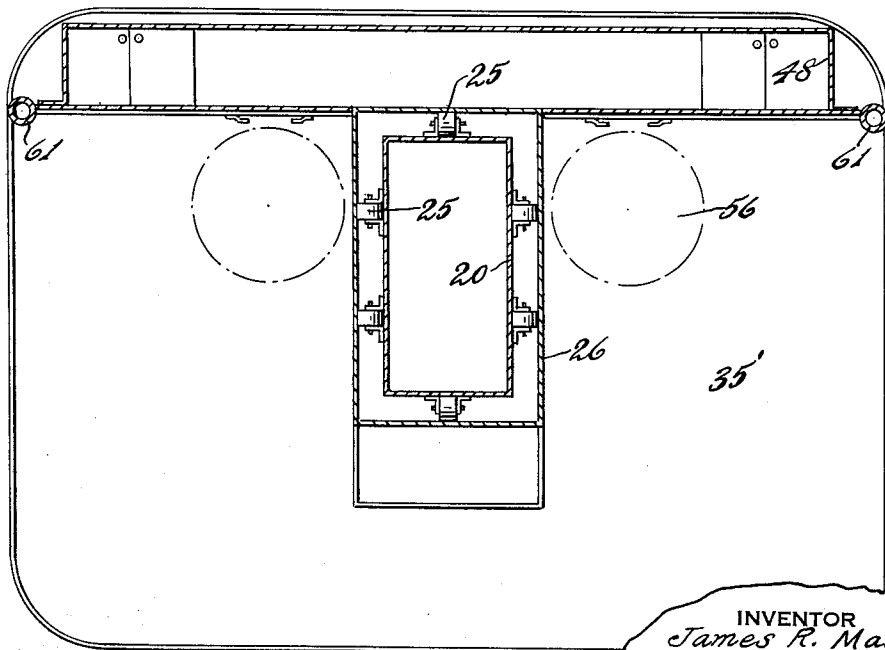


Fig. 12.

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HOSPITAL RECOVERY SERVICE UNIT

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1 Claim. (Cl. 137—355.16)

The present invention relates to medical recovery service units of the character which are especially adapted for use in recovery rooms of hospitals, and the like.

A purpose of the invention is to reduce the time required to permit medical personnel to gain access to facilities necessary for post-operative treatment of critically ill patients, including oxygen, vacuum, intravenous injection, medication and electrical equipment, while at the same time permitting such facilities and equipment to be placed beyond the normal reach of the patient and out of the way of the medical personnel.

A further purpose is to support the body of a medical recovery service unit on a vertical guide which permits vertical adjustment in telescoping relation to the guide, desirably placing rollers between the guide and the body, and counterweighting the body so that it can be held in any adjusted position.

A further purpose is to make the guide and the telescoping portion rectangular so that guiding can be obtained in the four horizontal directions without difficulty.

A further purpose is to permit flexible electrical connections to pass through the guide to receptacles at the bottom of the recovery unit body.

A further purpose is to mount medical equipment such as a vacuum bottle and an oxygen dispensing connection on the recovery unit body, and to provide flexible connections to the proper fittings on the guide.

A further purpose is to mount on the body hook arms which will support a receptacle for intravenous injection and the like and to make the height of the hook arm independently adjustable with respect to the height of the body.

A further purpose is to mount a shelf on the bottom of the recovery unit body and desirably provide additional shelves on the telescoping portion of the recovery unit body.

Further purposes appear in the specification and in the claim.

In the drawings I have chosen to illustrate one only of the numerous embodiments in which the invention may appear, selecting the form shown from the standpoints of convenience in illustration, satisfactory operation and clear demonstration of the principles involved.

FIGURE 1 is a front elevation of one embodiment of the service unit of the invention in retracted position.

FIGURE 2 is a side elevation of the device of FIGURE 1.

FIGURE 3 is a rear elevation of the device of FIGURES 1 and 2.

FIGURE 4 is a section on the line 4—4 of FIGURE 1.

FIGURE 5 is a section on the line 5—5 of FIGURE 1.

FIGURE 6 is a section on the line 6—6 of FIGURE 1.

FIGURE 7 is a section on the line 7—7 of FIGURE 2.

FIGURE 8 is a section on the line 8—8 of FIGURE 1.

FIGURE 9 is a view similar to FIGURE 8 showing the service unit extended.

FIGURES 10 to 12 are views showing a variant of the form of FIGURES 1 to 9, which is preferred in that it offers increased service facilities.

FIGURE 10 is a front elevation of the variant form of service unit.

FIGURE 11 is a section on the line 11—11 of FIGURE 10.

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FIGURE 12 is a section on the line 12—12 of FIGURE 10.

Describing in illustration but not in limitation and referring to the drawings:

In modern hospital practice, it is usual to concentrate nursing and medical attention of patients immediately after leaving the operating room and before complete recovery from the anesthetic and from the immediate reaction to the operation which has taken place, by placing such patients in a recovery room under the care of specially qualified medical and nursing personnel. One of the great advantages of the recovery room is that special equipment is made available and emergencies can be handled with great speed and assurance.

The practice followed in most recovery rooms is to place the patients' beds at the walls, often in cubicles, so that they can be accessible to connections for oxygen, vacuum, and the like which are provided along the walls. This is subject to the disadvantage that the nurse must walk around the foot of the bed and can only give immediate attention to two patients at a time.

Furthermore, since emergency medication is frequently of a character which must not be left accessible to the patient, it is frequently necessary to provide emergency medication and the like in cabinets which are not as accessible to the physician and nurse as would otherwise be desirable.

The present invention is concerned with the improvement of the recovery room facilities and particularly with the provision of a medical recovery service unit which can be placed in retracted position above each bed or above the space adjoining each bed, out of normal reach of the patient, but which can be drawn down by the physician or nurse by extending the unit downward to a position at which the various items of medical equipment on the service unit are readily available. In the preferred embodiment, the unit may be mounted above the foot of the bed, or above a point central to a group of beds.

The use of the service unit of the present invention permits the placement of the beds away from the walls near the center of the recovery room, in an arrangement such that a single nurse or physician can gain access immediately to any one of four patients of a group. It is no longer necessary for a nurse to make a circuit around the foot of the bed, since access to any bed can be had by direct approach from the nursing center.

The device of the invention permits placing of alkaloids and other medicines likely to be used under emergency conditions on the service unit, while at the same time assuring that the patient could not reach any such medicine without attracting the attention of the nurse.

Considering now the drawings in detail, I provide a vertically downwardly extending guide 20 which includes a guide housing 21 at the top, which is connected to a supporting flange 22 mounted on the ceiling 23.

The guide housing has extending downwardly from it a guide track 24 which is of rectangular cross section and has side walls which are adapted to act as guiding track surfaces for rollers to be described.

The guide track 24 has mounted on each of its side surfaces at the lower end rollers 25 which extend out and engage cooperating inner rectangular walls of a downwardly extending service unit body 26 which surrounds and telescopes with respect to the guide track.

The service unit body 26 on all four sides at the top has guide rollers 27 which ride on the guide track, and move up and down with the service unit body. Stops 28 are mounted on the guide track near the bottom as best seen in FIGURE 9, and engage the rollers 27 and prevent the service unit from being pulled down too far so that it might leave the guide track.

Mounted on brackets 30 in the guide housing 21 are spiral spring sash counterbalances 31 on each side of a character well known in the art, and from the counterbalances suitable metallic tapes 32 extend downward and are anchored to the bottom of the service unit body by eyes 33 secured by pins 34.

Thus it will be evident that the service units can be moved up or down with very little force, and will remain in any adjusted position under action of the counterbalances.

On the bottom of the service unit body a shelf 35 is mounted which extends out preferably in all directions and has an outer upwardly directed rim 36.

The shelf will conveniently support basins, bottles and the like of large size.

On one or more walls of the service unit body I provide a series of shelves 37 and guard rings 38 for medication bottles and other receptacles.

At one side of the unit, desirably on the mounting flange 22, I place an oxygen fitting 40 which connects by a flexible tube 41 with Y tubes 42 and 43 which respectively connect to an oxygen fitting 44 to a resuscitator and to an oxygen fitting 45 to a flow meter 46 which is adapted to be connected to an oxygen tent or the like. The fittings 44 and 45 are mounted on the front of a face plate 47 which extends out from one side of the unit body and the Y connection at the back is enclosed by a housing 48 secured to the body and to the face plate.

At the opposite side of the equipment, a vacuum fitting 50 is provided in the mounting flange 22 and this connects to a flexible hose 51 which leads down inside a housing 52 which is anchored to a face plate 53 on the opposite side of the service unit from the oxygen supply, the face plate being connected to the unit body. The hose 51 connects to a vacuum fitting 54 which interconnects by a hose 55 to a vacuum bottle 56 having a cap 57 which is suitably hung from brackets 58 on the face plate. From the bottle comes a connection 60 which suitably extends to a mouth tube or the like for applying vacuum to the patient. At the center on the front of the movable portion of the device I provide a blood pressure measuring apparatus 59.

To opposite sides of the face plates 47 and 53 are secured vertical tubes 61 through which extend rods 62 which at the upper ends are bent out at right angles to form arms 63 on which are secured hooks 64 for hanging a receptacle for intravenous injection or the like. The height of the hook 64 is adjusted by loosening set screws 65 threaded in the tubes 61 and then tightening the set screws after the adjustment has been made.

For the purpose of making electrical connection, cable 66 from a suitable junction box in the ceiling passes down through the interior of the guide track and the interior of the body of the service unit and connects with the receptacles 67 placed in the bottom of the shelf to permit electrical connection. For electrical connection purposes, access can be made by removing plate 68 on guide housing 21.

It will be evident that the device of the invention permits carrying overhead or on the ceiling all of the supply lines which must service the individual bed, thus keeping them out of the walkway and protecting them from dust and sources of infection. The unit can be moved completely out of the way when the bed is being moved in or out of the recovery room. Also, when the service unit

is not necessary, it can be placed completely out of the way.

On the other hand, when the service unit is needed it is merely necessary for the nurse or doctor to reach up and pull it down to a suitable level above the bed. In operation, when the service unit is required, it can be pulled down for the purpose of making electrical connections to pumps, fans, lights, bed operating motors, and any desired medical appliance.

The shelves 37 will be equipped with required emergency medication. Items likely to be used, such as basins, surgical cotton and gauze, suitably wrapped, may be placed on the shelf 35.

Oxygen is available at outlets 44 and 45 and vacuum is available at outlet 60.

The form of the invention which appears in FIGURES 10 to 12 embodies the same general form of support and the same general construction of the main elements, as shown in FIGURES 1 to 9. However, it has been designed so that it can serve two patients and it includes duplication of facilities such as the fittings 44 and 45 and the vacuum bottle 56. The shelf 35' is somewhat more ample in space than in the other form.

A utility drawer 70 is provided below the shelf, suitably separated by an interior partition 71, and permitting maintenance of reserve equipment for use in the treatment of each of the patients concerned.

In view of my invention and disclosure variations and modifications to meet individual whim or particular need will doubtless become evident to others skilled in the art, to obtain all or part of the benefits of my invention without copying the structure shown, and I, therefore, claim all such insofar as they fall within the reasonable spirit and scope of my claim.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

In a medical service unit adapted to be suspended from the ceiling of a room beneath a fluid feed fitting on the ceiling, said unit comprising a vertical guide having a downwardly extending portion of generally rectangular cross section, means for securing the guide to the ceiling, a recovery service unit body having a portion of rectangular cross section which telescopes with respect to the portion of the guide which is of rectangular cross section, fluid operated medical equipment mounted on the body, roller means acting between the body and the guide in all four lateral directions and positioning the body with respect to the guide in any relative adjusting position, a housing on the body, a flexible tube extending from the fitting on the ceiling into the housing and interconnecting with the fluid operated medical equipment on the service unit for fluid to be fed through said flexible tube between the fitting and said medical equipment, stop means limiting downward movement of the body with respect to the guide, and counterweight means acting between the body and the guide and holding the body in any adjustable position.

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