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TREATMENT CARRIER AND BRAKE MEANS THEREFOR

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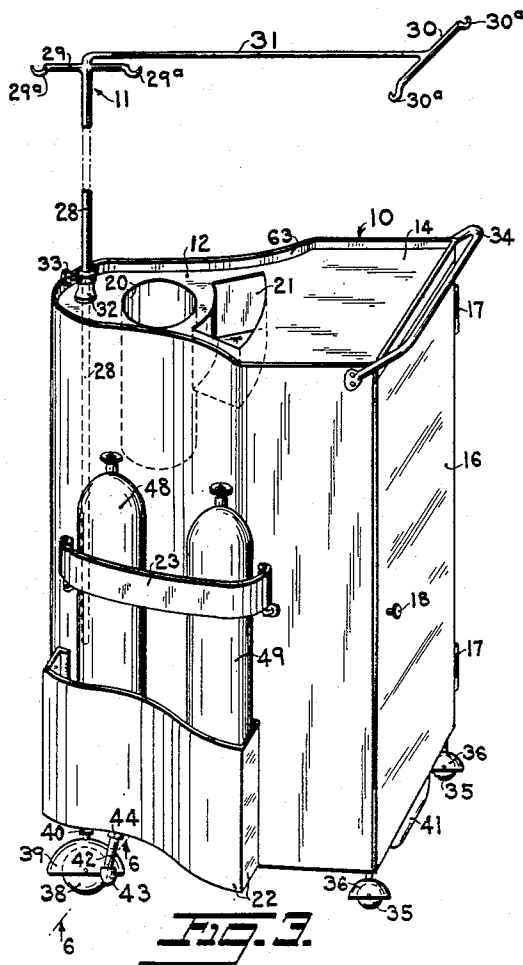


FIG. 3

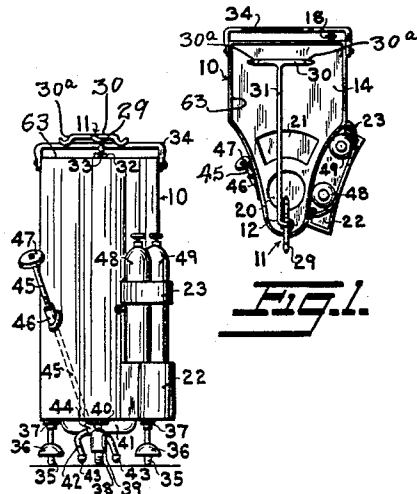


FIG. 1

FIG. 2

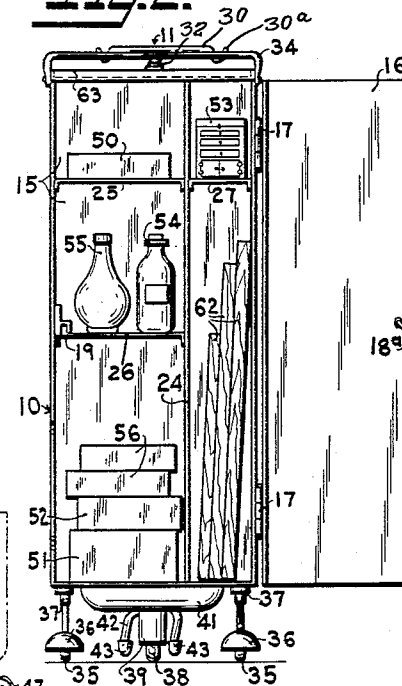


FIG. 4

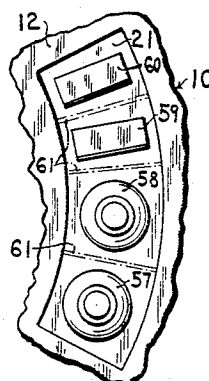


FIG. 5

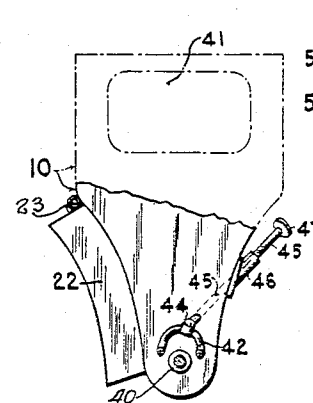


FIG. 6

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TREATMENT CARRIER AND BRAKE MEANS THEREFOR

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1 Claim. (Cl. 188—5)

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This invention relates to new and useful improvements in hospital equipment, and, more particularly, the aim is to provide a novel and valuable wheeled unit, which is easily manually dirigible while being wheeled toward the bedside of a patient but which is, nevertheless, so shaped and contoured as preferably to have an expanse horizontally which is elongated in a direction predeterminedly related to the direction of rollably supported advance of the unit, thereby to permit arranging the unit properly adjacent to a patient's bed, even when there are beds on both sides of the first-named bed and very little space therebetween (as is the situation frequently encountered even in hospital semi-private rooms, due to the crowded condition of so many hospitals today); which wheeled unit, further, has, as one of its main elements, a post-like means constituting a columnar component, of special design, and with hooks for therapeutic solution containers and, as another of its main elements, a basal component constituting (1) a compartmented work table for the physician, nurse or medical attendant, (2) a compartmented cabinet-including carrier for auxiliary appliances and for therapeutic, pharmaceutical, antiseptic, anaesthetic and various emergency and otherwise needful substances, liquids and gases, (3) a master support for said columnar component and in regard to which the latter preferably is readily raisable, lowerable, swingable and securable at a desired upward extension and at a desired angular position, and (4) a chassis mounting the floor-contacting wheels.

By the present invention there is provided, for the first time so far as I am aware, what may be called a movable omnibus-treatment structure, characterized particularly and fundamentally by the coactive incorporation in one unit structure of a treatment table and the columnar component aforesaid; the latter for use in an improved way and with advantages inclusive of and additional to those of the familiar piece of hospital equipment commonly referred to as the "gravity" pole or "standard."

A sharp distinction between the present invention and poles of the kind last described is that according to the present invention the post-like columnar component thereof is carried on and supported by a sturdy and rigid structure having an extended bottom portion carrying the wheels and incorporating the table aforesaid, whereas in the previously used poles the tray is an offset and instability-augmenting addition to the pole.

For further comprehension of the invention,

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and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a top plan view of a now favored embodiment of the invention.

Fig. 2 is an end elevation thereof.

Fig. 3 is an enlarged perspective view thereof.

Fig. 4 is an end elevation, looking toward the cabinet carrying end of the assembly, with the cabinet door shown open.

Fig. 5 is an enlarged detail view, this being a fragmentary top plan showing a portion of the table.

Fig. 6 is, on a scale somewhat reduced over that of Fig. 3, a detail sectional view taken on the line 6—6 of Fig. 3 and therefore partially being a bottom plan view of the cabinet-including carrier.

Referring to the drawing more in detail, the illustrative embodiment of the invention here shown includes a carrier 10 and a post-like columnar component 11. The carrier 10 is, as indicated, preferably a hollow body, and, also preferably, is elongated in horizontal section and of like section substantially from top to bottom, and further preferably is substantially truncated pear-shaped as shown so as to include a forward section 12 of ogival outline and a rear section 14 of substantially rectangular outline in the main. The top of the carrier 10 provides, particularly at its section 12, the work-space already mentioned. The space below said section 14 is utilized for the incorporation of a suitably shelved and/or vertically or otherwise partitioned cabinet 15, as one closable by a swing door 16, hinged as at 17, and having a manipulable knob 18 carrying a latch member 18^a for snap-latching coaction with a suitably fixed keeper 19.

Variations may occur in the material or materials used in the construction of the carrier 10. Aluminum, stainless steel or an alloy sheet material would be preferable. However, wood, or any other suitable material might be used. Also, while the now preferred top plan and horizontal sectional aspects of the carrier have been expressly pointed out, the carrier within the invention may be otherwise shaped, as, for example, to have the same incorporate a circular, square, triangular, oblong, oblongovate or other outline at top and/or at various levels heightwisely thereof. Variations may also occur in regard to the

equipment to be carried by the apparatus, and in regard to the spatial provisions and accommodations therefor.

However, as herein shown, the section 14 of the table is provided with a well-like recess 20 and a longitudinally curved recess 21 elongated laterally of the carrier 10. Also at one side of the carrier, toward the bottom of its forward section 12, a side-walled exterior shelf 22 is suitably affixed, and also, somewhat above the top of the latter, is a suitably attached holder element, as a strap 23 of leather, canvas, webbing or the like. Again, the cabinet 15 is shown as having a vertical partition 24, and two shelves 25 and 26 on one side of said partition, and a shelf 27 on the other side of said partition.

At the same time the post-like columnar component 11, below called the post, may well have a length of 33" at its main or staff portion 28. At its upper portion the staff 28 may be provided with a hook or several variously offset hooks for the suspension of solution bottles or the like. Where such hooks are plurally present, they may be at different heights, especially if the post 11 be mounted on the carrier 10 so as to be fixed relative to its upward extent or projection from the table atop the carrier. However, as here shown, the post 11 is illustrated as having two horizontal arms, 29 and 30, both at or near the top of said staff 28; with these arms perpendicular to each other; with one alongside said staff and the other well spaced from said staff; with both having terminal hook portions 29^a, 29^b and 30^a, 30^b; and with the said spaced arm at the end of a horizontal main arm 31 of considerable length.

Also, as here shown, the staff 28 is raisable and lowerable, through a sleeve 32 basally affixed to the table and having an upper rim radially drilled and tapped for taking a handscrew 33 turnable in one direction to release the staff for raising and lowering, and turnable in the opposite direction for clamping the said staff to hold its top at any desired elevation above the table and with its long arm 31 swung at any angle desired.

The apparatus is shown as trundlable as by way of a handle-bar 34, and dirigible because rollably supported on a pair of rear smaller rollers 35 hooded as at 36 and suitably swivelly mounted on the bottom of the carrier 10 as at 37, and on a larger front wheel 38 hooded as at 39 and swivelly mounted on the bottom of the carrier 10 as at 40.

As will become clear, particularly when there is considered the weight of the equipment carried, this equipment in a now preferred and illustrative array thereof to be described in a moment, and the fact is recognized that the resulting location of the center of gravity of the entire combination will be well in rear of the wheel 38, there can be no tipping over of the apparatus in a forward direction, even with the post 11 much elevated and with one or more units of considerable weight suspended from its hooks, and this despite the preferred shape of the carrier as illustrated. However, a counterweight member 41 is illustrated as conveniently to be carried, if desired, at the bottom of the carrier and adjacent to its smaller wheels 35.

For locking the apparatus immovable in its selected position, as alongside the bed of a patient to receive a treatment, desirably some suitable braking means will be employed. Such means may be applied at one, two or all three

of the wheel elements of the undercarriage; and such means may be a manually effectuated wheel jamming instrumentality tightened up as by turning a hand-screw. However, to avoid stooping, a feature of the invention which may be employed, is such as that exemplified by the construction best shown in Figs. 2 and 6 when taken with other views, as will now be described.

A forked member 42, with its two tines downwardly directed and with these latter at their lower ends carrying friction-grip elements such as rubber knobs or cups 43, straddles the wheel 38; and at its upper end is swivelly connected as indicated at 44 to the lower end of an upwardly compoundedly inclined rod 45. The connection at 44 is a conventional swivel which rotatably mounts the bight portion of the member 42 to the lower end of the rod 45 for rotation about the axis of the rod 45. Rod 45 is threaded along its upper length and there passes through the matchingly threaded bore of a collar 46 forming part of a fitment suitably secured to the side of the carrier 10 which is opposite to the side carrying the exterior shelf 22; said rod at its upper end fixedly carries a readily accessible hand-wheel 47. For freely rolling the apparatus along the floor, the parts will be arranged as illustrated; and for forcing the cups 43 or equivalents down tight against the floor, to anchor the apparatus against any slightest shift from its finally adjusted position, it is merely necessary to turn said hand-wheel 47 in the required direction the required number of turns.

Rotation of the hand-wheel 47 and rod 45 in a given direction causes the rod to be lowered, in the manner of a lead screw, by virtue of the threaded mounting of the rod 45 in the collar 46. This lowers the forked member 42 into braking engagement with the floor on which the apparatus rests. During such rotation of rod 45, the member 42 does not rotate, because it is swivelly mounted to the end of the rod 45. Any frictional tendency for the member 42 to rotate is blocked either by the arms of the member abutting the hood 39; or, since the rod 45 is set at an angle, by one of the arms abutting the floor. Rotation of the hand-wheel 47 and rod 45 in the opposite direction causes the rod to be raised, thereby freeing the forked member 42 from braking engagement with the floor.

Referring now to the equipment of the carrier 10, variations in such equipment may, as already stated, occur. The type of treatment to be given the patient will be the main consideration. The material used will vary with the specific ailment and these medicines can be interchangeably placed in the device.

Occasionally, it has happened that an intravenous solution bottle containing precious blood was accidentally knocked over, since it was not properly supported. Therefore, the deep well-like recess 20 is capacitated mainly for the proper holding of intravenous solution bottles for safety prior to use. It may also be used for holding certain long instruments which should be kept sterile at their working ends, and said instruments could be partially immersed in a sterile fluid in a container in the recess 20. The articles for the carrying of which the recess 21 is particularly adapted are such as alcohol or merthiolate (or any other preferred antiseptic solution) bandage, adhesive tape, and a tourniquet. These will be used for treatments under classifications I and III; that is, for intravenous injections

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(saline, blood or plasma) and hypodermoclysis feedings and medication. As indicated in Fig. 5, there may be thus present in the recess 21, an alcohol bottle 57, a merthiolate bottle 58, a bandage roll 59, and an adhesive spool 60. If desired, the recess 21 may be suitably partitioned off, as indicated in dot and dash lines in Fig. 5 at 61.

The main benefit of the new treatment apparatus over the conventional gravity pole is the safety consideration. The attachment of such pole to a table atop a structure having inherently a high degree of stability, accompanied by a low specific gravity for the entire apparatus, eliminates the hazard of accidentally knocking over the pole during a treatment while an intravenous needle is puncturing a patient's vein. As indicated at 62, the cabinet 15 may always have therein a number of different armboards for ready removal and use in supporting the patient's arm during an intravenous treatment.

A lesser yet highly important utility of the new treatment table is the fact that with its use all materials and equipment used in a specific treatment can be centralized in one storage structure and that a readily portable one; and it is self-evident that the amount of time saved by not having, especially in an emergency, to assemble equipment from various fixed storage locations is vitally important. That is why, for example, it has been suggested that each ward or floor in a general hospital have three of the new treatment tables, each table being equipped with materials according to a different one of the treatment categories I, II, and III.

For further safety, especially with instruments and the like so shaped as to be easily rollable, the perimeter of the table atop the carrier 10 is shown as having an upstanding bead or rim 63.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the

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right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

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

A treatment apparatus comprising a carrier having wheels mounted on the bottom thereof, and brake means for preventing said carrier from rolling on said wheels, said brake means comprising: a threaded rod threadedly and rotatably mounted to said carrier and extending downward to terminate near one of said wheels, and a forked member swivelly mounted to the lower end of said rod, the arms of said member being adapted to engage a floor surface on opposite sides of said one wheel, upon lowering of said member, said arms terminating in friction elements adapted to contact the floor surface, rotation of said rod with respect to said carrier serving, by virtue of the threaded mounting, to lower and raise the lower end of said rod and hence said member, thereby selectively engaging and disengaging said friction elements with respect to the floor surface.

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