

[54] **APPARATUS AND METHOD FOR TRANSFERRING A BODY BETWEEN HORIZONTALLY SPACED SUPPORTED POSITIONS**

[76] Inventor: **Martin L. Swara, Sr.**, 2565 Nye St., San Diego, Calif. 92111

[22] Filed: **Apr. 6, 1972**

[21] Appl. No.: **241,789**

[52] U.S. Cl. **5/81 B**, 193/35 R, 214/41, 214/83.26

[51] Int. Cl. **A61g 7/10**

[58] Field of Search. 214/38 R, 38 D, 83.26, 84, 214/41; 193/5, 35 R; 5/81 R, 81 B

[56] **References Cited**
UNITED STATES PATENTS

3,113,654 12/1963 Kirsch 214/84

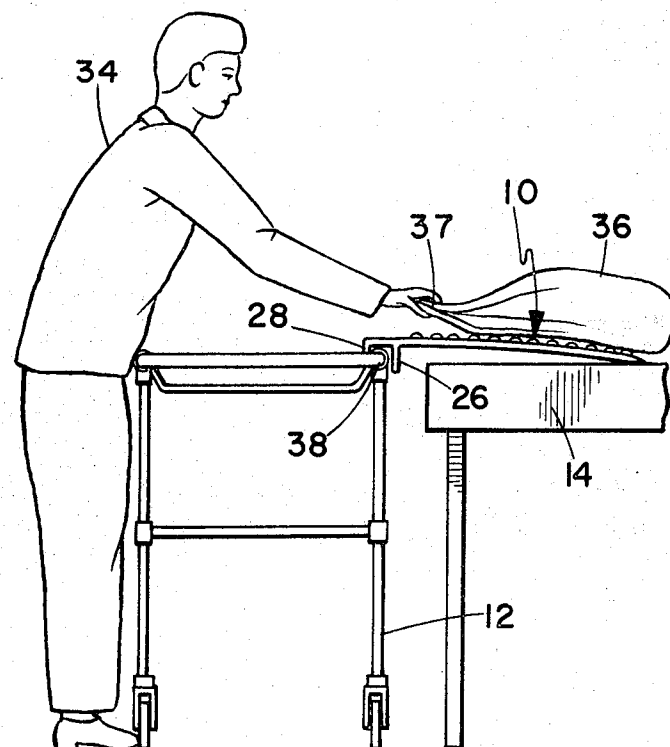
1,241,436	9/1917	Peterson	193/5 X
1,124,178	1/1915	Schroeder	214/84 X
2,691,782	10/1954	West	5/81 B
2,665,432	1/1954	Butler	5/81 B
2,192,821	3/1940	Torines	193/35 R X

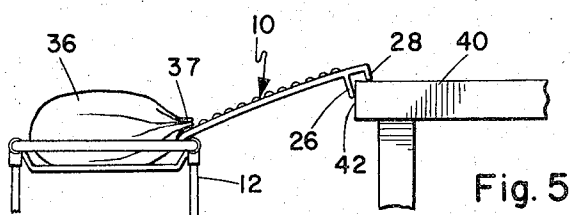
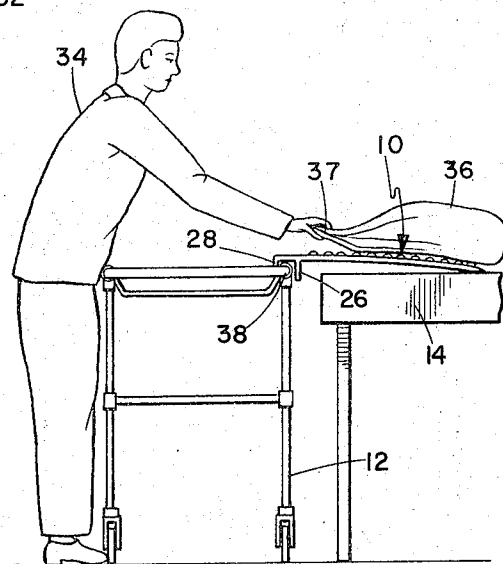
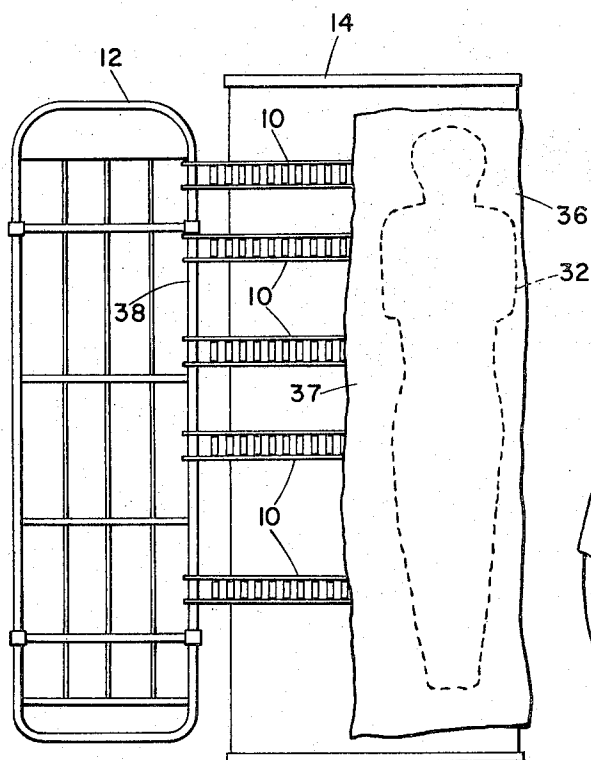
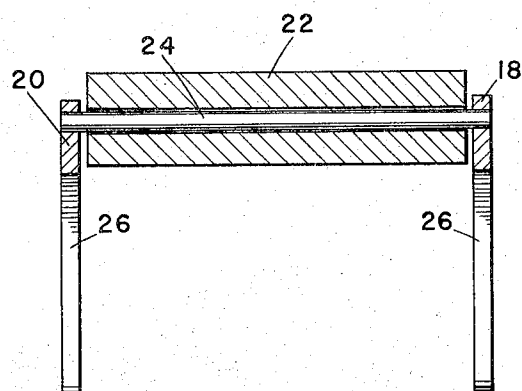
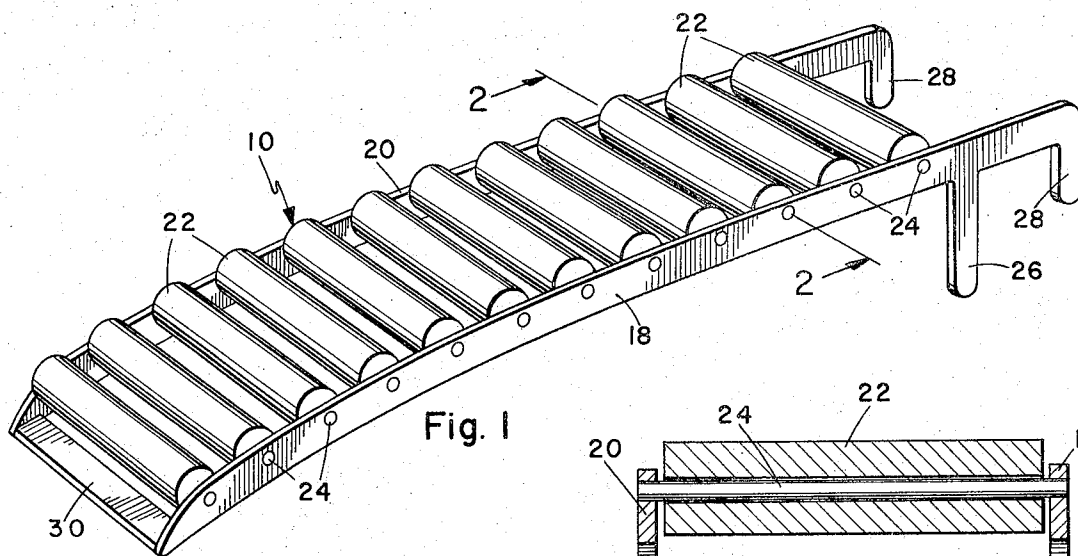
Primary Examiner—Robert G. Sheridan
Attorney, Agent, or Firm—Brown & Martin

[57] **ABSTRACT**

The apparatus comprises roller frames with a plurality of horizontally spaced rollers that enable a single attendant to move a body to and from a wheeled cot. The frame is retained on a horizontal bar forming a part of the structure of the cot, by a pair of vertical legs. The legs also serve to retain the roller frame over the edge of a mortuary table, and for this use, the outermost leg is substantially shorter than the adjacent leg.

2 Claims, 5 Drawing Figures





APPARATUS AND METHOD FOR TRANSFERRING A BODY BETWEEN HORIZONTALLY SPACED SUPPORTED POSITIONS

BACKGROUND OF THE INVENTION

The cost of labor is an important factor in the profitability of a mortuary. One of the highly labor intensive operations in mortuary service is that operation known as a first call. First calls are that operation where mortuary employees retrieve a corpse and deliver it to the mortuary. The majority of these calls are from hospitals or similar institutes where the body lies on a bed or similar supporting structure.

Mortuaries are frequently required to send two attendants to make these first calls. The requirement for two attendants results principally from the great difficulty in moving the body of a deceased person from, for example, the hospital bed to a wheeled cot. Once on the wheeled cot, it is a relatively easy task for one attendant to maneuver the cart and load it into a hearse or other vehicle.

Thus it is desirable to have an apparatus and method whereby a single attendant may easily move a deceased person's body from the hospital bed to a wheeled cot, thereby eliminating the need for a second attendant on a first call. Such apparatus is especially desirable if it is portable, so that it may be carried by the attendant for use in the hospital, and then returned with the wheeled cot to the mortuary. It is further desirable, if such apparatus and method are adaptable so that a single attendant may transfer the body from the wheeled cart to the mortuary table.

SUMMARY OF THE INVENTION

An exemplary embodiment of the invention utilizes a plurality of roller frames to support the body and reduce the effort required to move the body horizontally from its initial position to the wheeled cot or mortuary table.

One end of the roller frame is provided with a horizontal surface engaging means, so that the frames may be placed closely adjacent the body and at a minimal elevation thereabove. This positioning reduces the effort required to move the body onto the rollers. The roller frame also includes retaining means on the end opposite the surface engaging means. The retaining means are configured so that they may be placed over the horizontal bar of a wheeled cot, to retain the roller frames in position during the movement of the body from the bed to the cot. The retaining means are also adaptable for use in conjunction with the movement of the body from the cot to a mortuary table. In this operation the short leg of the retaining means engages the horizontal surface of the table and the longer leg engages the vertical edge of the table, to retain the roller frame in position while the body is drawn out of the wheeled cot, over the rollers, and onto the table.

The apparatus of the invention finds particular utility in connection with the novel method of the invention whereby the body is rolled onto a sheet so that the free ends of the sheet may be grasped and the body drawn onto the rollers and into the wheeled cot or alternatively from the wheeled cot and onto the mortuary table.

It is therefore an object of the invention to provide a new and improved apparatus and method of transfer-

ring a body between horizontally spaced supported positions.

It is another object of the invention to provide a new and improved apparatus and method for transferring a body that is easily retained during the operation, over a wheeled cot or on a horizontal surface.

It is another object of the invention to provide a new and improved apparatus for transferring a body that is light in weight.

It is another object of the invention to provide a new and improved apparatus for transferring a body that is relatively low in cost.

It is another object of the invention to provide a new and improved apparatus for transferring a body that is adaptable for use by a single attendant.

It is another object of the invention to provide a new and improved apparatus for transferring a body that is adaptable to use in transferring the body both to and from a wheeled cot.

It is another object of the invention to provide a new and improved method for enabling a single attendant to transfer a body between horizontally spaced supported positions.

Other objects and many attendant advantages of the invention will become more apparent upon a reading of the following detailed description together with the drawings in which like reference numerals refer to like parts throughout and in which:

FIG. 1 is a perspective view of a roller frame.

FIG. 2 is an enlarged sectional view taken on line 2-2 of FIG. 1.

FIG. 3 is a top plan view of the arrangement of roller frames for transferring a body from a bed to a wheeled cot.

FIG. 4 is an end elevation view of the arrangement of FIG. 3 showing the method of transfer.

FIG. 5 is a partial end view showing a roller unit connecting a cot with a mortuary table.

Referring now to the drawings, there is illustrated a roller frame unit 10. The roller frame is made up of frame members 18 and 20 that support between them on shafts 24, a plurality of rollers 22. The rollers are illustrated as being rotatably received on the shafts 24, however it is to be understood that the rollers could be fixedly received on the shafts, and the shafts rotatably mounted on the frame members.

The frame members have retaining means, comprising vertical legs 26 and 28, at one end thereof. The legs are spaced along the frame members 18 and 20 by a distance in excess of that normally encountered for the outside diameter of the structural horizontal bar member on a wheeled cot. The leg 28 is outermost and is substantially shorter than leg 26, for purposes which will be more fully understood hereinafter.

The opposite end of the roller frames includes a means for supporting from horizontal surfaces. This comprises a bar 30 extending between the frame members, to support the frame members on a horizontal surface such as a hospital bed.

Referring now to FIG. 3, the installation of the roller frames on a wheeled cot 22 is illustrated. The wheeled cot 12 is illustrated as having five roller frames 10 secured over a horizontal bar 38. It is to be understood that the invention is not limited to use with five frames, but the invention may be practiced utilizing two or more frames, depending on the weight requirement, and the width of the rollers. The means for supporting

3

the roller frames from a horizontal surface have been placed closely adjacent to a body 32 being supported on a hospital bed 14. The body is encased in a sheet 36 and the free end 37 of the sheet may be grasped by an attendant, as is more clearly illustrated in FIG. 4, whereby the body may be drawn from the bed 15, over the rollers 22, to be received on the wheeled cot 12.

In FIG. 5, the utilization of the roller frames of the invention for the purpose of transferring a body to a mortuary table is illustrated. The mortuary table has a horizontal surface 40 that would normally be elevated with respect to the supporting portion of the wheeled cot 12. In this use, the roller frames are placed so that the longer leg 26 abuts against the vertical edge 42 of the table, and the shorter leg 28 contacts the horizontal surface 40. The opposite end of the roller frame is received over the bar 38 of the wheeled cot and the attendant grasps the free ends of the sheet to draw the body over the rollers. The induced horizontal force on the roller frames caused by the movement of the body onto the frames and across the rollers, is transferred to the mortuary table by the vertical legs 26, allowing the body to be drawn over the roller frame, and into position on the surface 40 of the mortuary table.

OPERATION

The method of the invention is practiced by a single attendant positioning a wheeled cot alongside a hospital bed such as is illustrated in FIG. 3. The body 32 is rolled onto a sheet 36 and the sheet folded over the body to place both of the free ends 37 adjacent the wheeled cot. The roller frames are then placed closely adjacent to the body and the vertical legs positioned over the horizontal bar 38. The roller frames are positioned to be placed under the weight centers of the body, and may advantageously be placed under the head, shoulders, back, buttocks and legs so that five frames are positioned to maintain the body in a horizontal position and support all areas thereof. The attendant is then able to grasp the free ends 37 of the sheet and draw the body onto the rollers from the bed, and thereafter from the roller frames into the wheeled cot. The roller frames are then removed from the horizontal bar 38 and placed in a suitable storage container (not shown) that may be mounted on the wheeled cot itself.

After the body is moved to the mortuary, and it is then desired to position the body on the mortuary table, the roller frames are again employed, however the retaining means on the roller frame is, in this utilization, positioned over the edge of the mortuary table. The configuration of the leg is such that the roller

4

frames supported vertically and also retained in position horizontally, so that the attendant may reach over the table and again grasp the free ends 37 of the sheet, to draw the body over the roller frames and deposit it on the table surface 40.

Having described my invention, I now claim:

1. In a device for transferring a body between horizontally spaced supported positions including a bed or a table, and a cart with horizontal rails wherein both vertical and horizontal loads are imposed on the device during the movement of the body, and wherein the improvement comprises in combination:

a plurality of roller frames having a pair of spaced elongated frame members,

said roller frames carrying a plurality of spaced rollers on shafts extending between said frame members,

said roller frames having retention means on a first end thereof for selectively and removably retaining said frame on said horizontal rail or against the edge of said table for absorbing said horizontal loads,

said retention means comprising at least one spaced pair of vertical legs depending from said frame members,

the outermost of said pairs of legs being substantially shorter than the other of said pair of legs, and horizontal surface engaging means on a second end of said roller frames for supporting said rollers on and closely adjacent to said horizontal surface, said horizontal surface engaging means comprising a flat bar interconnecting said frame members.

2. A method of transferring bodies between supported positions comprising:

positioning a wheeled cot alongside a first body supporting position,

rolling a body onto a sheet,

folding said sheet over said body,

placing horizontal surface engaging means of a plurality of roller frames closely adjacent the underside of said body,

grasping the ends of said sheet and pulling said body over said roller frames and onto said cot,

securing said roller frames to a horizontal surface of said second body supporting position by placing the short and outermost leg of retaining means on said roller frame in engagement with said horizontal surface, and

pulling said body from said cot over said roller frames and onto said second body supporting position.

* * * * *

55

60

65