

Jan. 12, 1954

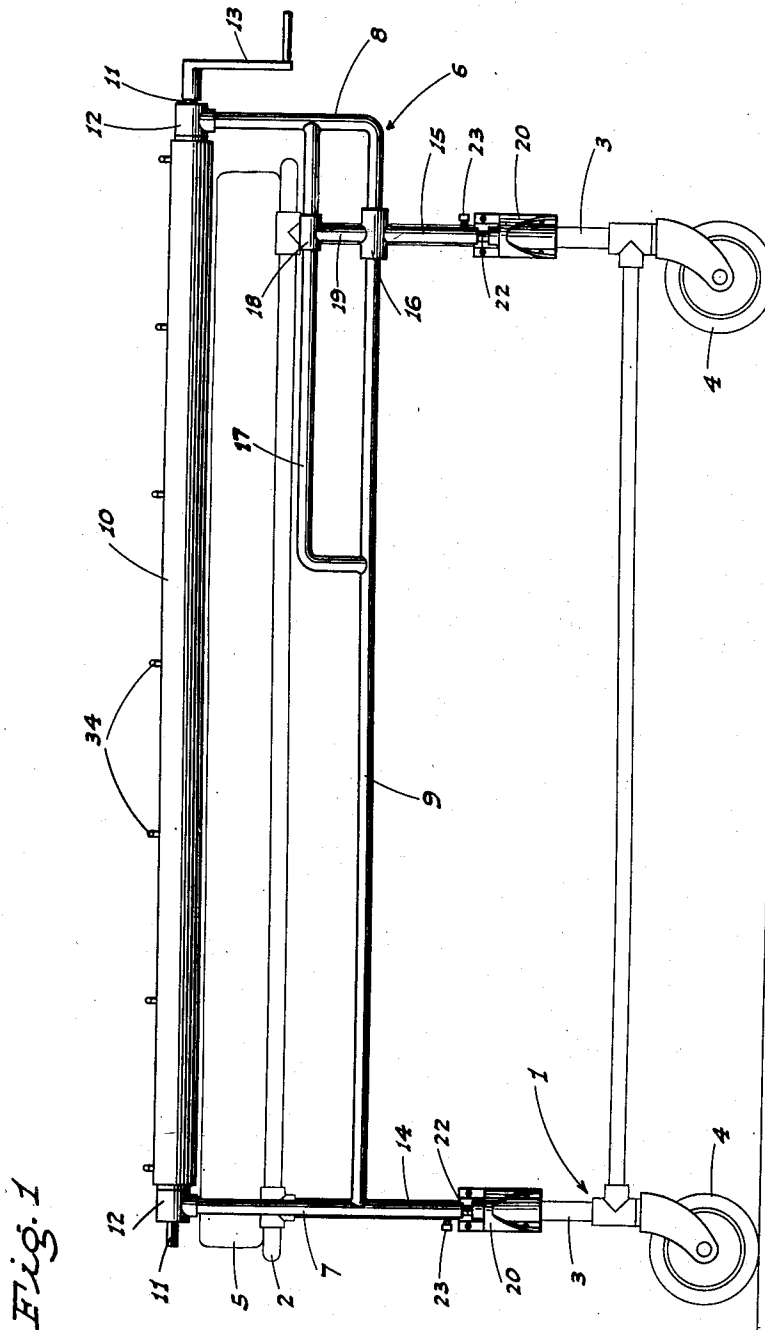
A. A. BUTLER

2,665,432

PATIENT TRANSFERRING DEVICE

Filed Feb. 5, 1949

2 Sheets-Sheet 1

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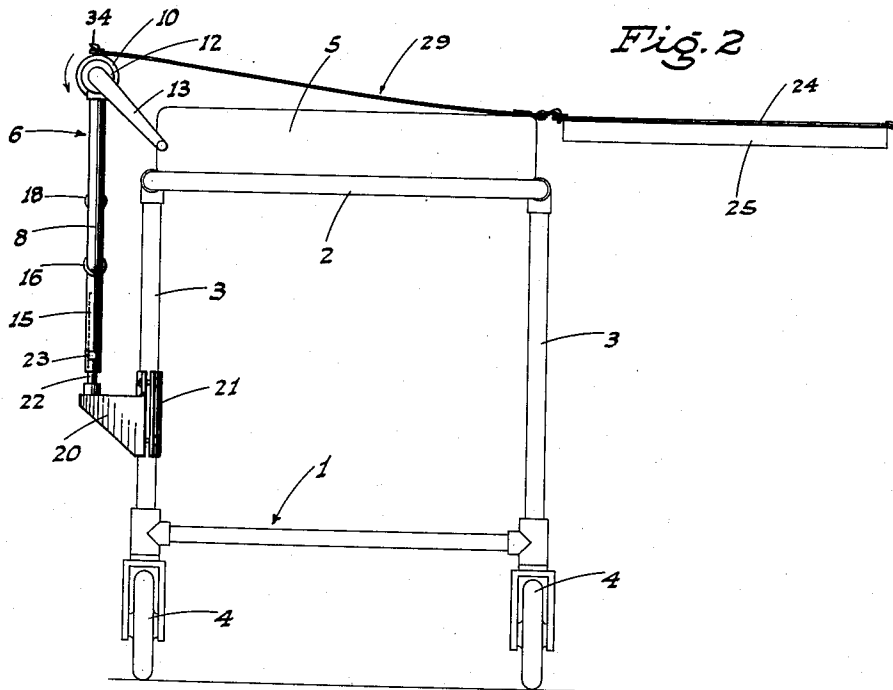
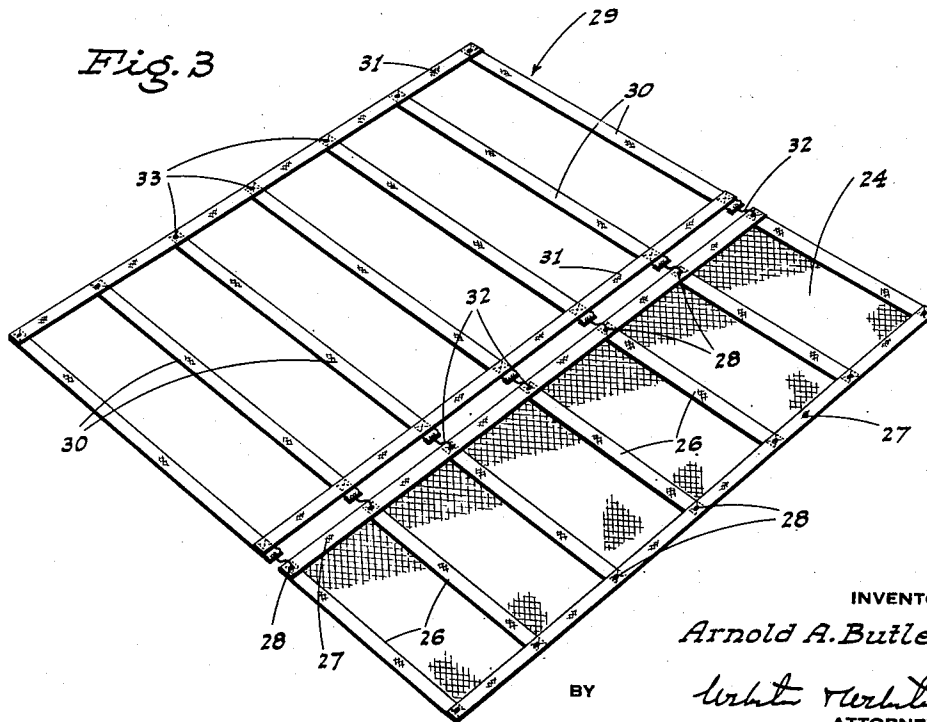
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PATIENT TRANSFERING DEVICE

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2 Sheets-Sheet 2



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PATIENT TRANSFERRING DEVICE

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This invention relates to, and it is an object to provide, a novel device for transferring an unconscious or incapacitated patient from one support to another, as—for example—from an operating table to a wheeled stretcher or gurney, as it is called or from the gurney to a hospital bed.

Another object is to provide a patient transferring device, as above, which includes a transfer sheet beneath the patient, and a novel pull mechanism mounted on the support to which the patient is to be transferred; said mechanism being arranged to move the transfer sheet with an even lateral pull away from end to end of said sheet.

A further object of the invention is to provide a patient transferring device, as in the preceding paragraph, in which said mechanism incorporates a hand actuated windlass and a flexible pull unit extending from the windlass to the transfer sheet; being detachably connected to the latter.

An additional object of the invention is to provide a patient transferring device which is detachably mounted whereby said device may be used in connection with a gurney or other patient support, such as a hospital bed.

Another object of the invention is to provide a patient transferring device which is designed for ease and economy of manufacture.

A still further object of the invention is to provide a practical and reliable patient transferring device, and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a perspective view showing the transfer sheet and the flexible pull unit in cooperative engagement, but detached from the remainder of the device.

Fig. 2 is an end elevation of the device illustrating the manner of its use.

Fig. 3 is a perspective view showing the transfer sheet and the flexible pull unit in cooperative engagement, but detached from the remainder of the device.

Referring now more particularly to the characters of reference on the drawings, the device is here shown—by way of example—as mounted in connection with a hospital gurney, indicated generally at 1, which gurney includes a supporting frame 2 having corner posts 3; the latter being mounted at their lower ends in connection with swivel caster wheels 4. Additionally, the gurney carries a patient support in the form of a mattress 5.

The patient transferring device includes an upstanding, elongated frame, indicated generally at 6, disposed along one side of the gurney 1. This

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frame 6 comprises vertical end posts 7 and 8, said posts being connected together in rigid relation by a horizontal bottom bar 9.

An elongated windless or roller 10 extends between the upper ends of the end posts 7 and 8, and said roller 10 includes end spindles 11 carried in journals 12 on said posts 7 and 8.

At either end the corresponding spindle 11 is adapted to receive a hand crank 13 provided for the purpose of rotating the roller 10.

Below the horizontal bottom bar 9 the device includes a pair of dependent legs 14 and 15; the leg 14 being a downward extension of the end post 7. The leg 15 is initially separate from the frame 6 and is mounted in connection with such frame, and for adjustment therealong, as follows:

The leg 15 is fitted at its upper end with a horizontal mounting sleeve 16 which slidably engages on the horizontal bottom bar 9 so that said leg 15 may be moved or adjusted to alter the span between the latter and leg 14.

To prevent rotation of the mounting sleeve 16, without restricting sliding thereof axially, the following is provided:

A horizontal guide bar 17 is included in frame 6 above the bottom bar 9, and a guide sleeve 18 runs on said bar 17; there being a connecting post 19 between the sleeves 16 and 18. As so connected both sleeves can slide axially but cannot rotate, holding leg 15 in proper downwardly projecting relation.

The frame 6, including the roller 10, is mounted vertically along one side of the gurney 1, or other bed-like patient support, as follows:

Brackets 20 are secured by clamps 21 to the adjacent corner posts 3 of the gurney, such brackets 20 projecting laterally outward and including upstanding stems 22. The legs 14 and 15 are tubular and open at the lower end whereby to receive the stems 22 therein. As leg 15 is adjustable to vary the span between legs 14 and 15, the device can be attached, without difficulty, to gurneys, or the like, of different lengths.

Set screws 23 on legs 14 and 15 are provided so that the elevation of frame 6 can be selectively adjusted to dispose the roller 10 in a plane slightly above the mattress 5.

The numeral 24 indicates a flexible, patient transfer sheet adapted to be disposed beneath the patient on a bed-like support, other than the gurney 1, such as an operating table indicated diagrammatically at 25. The transfer sheet 24 is preferably of canvas reinforced by a plurality of transverse, flexible straps 26 and longitudinal, flexible, edge straps 27; there being eyes 28 through the sheet 24 adjacent each end of the transverse straps 26.

An elongated, rectangular, and flexible pull unit, indicated generally at 29, detachably connects between the adjacent side of the patient

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transfer sheet 24 and roller 10; such pull unit 29 comprising transverse, flexible pull straps 30 connected at the ends by longitudinal, flexible, edge straps 31. At one end the pull straps 30 are fitted with hooks 32, while the opposite ends have eyes 33.

When the device is in use to transfer a patient from the operating table 25 to the mattress 5 of the gurney, alongside the table 25, the frame 6 is on the side of the gurney opposite said table. The pull unit is connected between the roller 10 and adjacent edge of the transfer sheet 24 by engaging the hooks 32 with corresponding eyes 28, and by engaging eyes 33 with corresponding hooks 34 on roller 10.

Thereafter, with rotation of roller 10 by crank 13 in a direction to wind the flexible pull unit 29 onto said roller, the sheet 24 with the patient thereon is pulled laterally and readily transferred from the operating table 25 to the mattress 5 of the gurney.

By a like operation, but with the frame 6 mounted on a hospital bed (not shown) the patient can be transferred from the gurney to said bed.

Under certain conditions it may be desirable to transfer a patient by the device from the gurney to the operating table 25, and to do this requires only the mounting of frame 6 on one side of said table, followed by operation of the device, as hereinbefore described.

The device functions easily and smoothly to transfer patients, without manual lifting, from one bed-like support to another; the transfer being accomplished with an even, positive pull on one side of the transfer sheet 24.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful, and upon which Letters Patent are desired:

1. Apparatus for transferring a person from a first bed like support to a second bed like support when the two are disposed in side by side relation, such apparatus comprising a flexible transfer sheet adapted to overlie and rest on the first support beneath such person, a frame, means for attaching said frame to the second support on the side thereof remote from the first support, a roller supported in the frame to lie longitudinally of the second support, means to rotate the roller, a flexible pull unit mounted in winding relation on the roller and adapted to overlie the second support, and means for quickly detachably connecting the outer edge of the pull unit to one edge of the transfer sheet.

2. Apparatus for transferring a person from a first bed-like support to a second bed-like support when the two are disposed in side by side relation, such apparatus comprising a flexible transfer sheet adapted to overlie and rest on the first support beneath such person, a frame, means for attaching said frame to the second support on the side thereof remote from the first support, a roller supported in the frame to lie longitudinally of the second support, means to rotate

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the roller, and a flexible pull unit mounted in winding relation on the roller and adapted to overlie the second support and connected along its outer edge to one edge of the transfer sheet; the frame including a lower longitudinal bar, a leg fixed on and rigid with the bar at one end thereof, another bar rigid with but spaced from and parallel to said lower bar and extending lengthwise thereof from the other end thereof, connected sleeves slidable on the bars, and another leg fixed to and depending from the lower sleeve; said frame attaching means comprising brackets adapted to be secured to said other support and in which the legs are supportingly engaged.

3. Apparatus for transferring a person from a first bed-like support to a second bed-like support when the two are disposed in side by side relation, such apparatus comprising a flexible transfer sheet adapted to overlie and rest on the first support beneath such person, a frame, means for attaching said frame to the second support on the side thereof remote from the first support, a roller supported in the frame to lie longitudinally of the second support, means to rotate the roller, and a flexible pull unit mounted in winding relation on the roller and adapted to overlie the second support and connected along its outer edge to one edge of the transfer sheet; the frame attaching means including depending legs on the frame, brackets adapted to be secured to said other support and in which the legs are mounted; the brackets projecting laterally out from said support to dispose the frame laterally out from the support sufficiently to provide a predetermined amount of clearance between the frame and legs and the adjacent side of the support.

4. Apparatus for transferring a person from a first bed-like support to a second bed-like support when the two are disposed in side by side relation, such apparatus comprising a flexible transfer sheet adapted to overlie and rest on the first support beneath such person, a frame, means for attaching said frame to the second support on the side thereof remote from the first support, a roller supported in the frame to lie longitudinally of the second support, means to rotate the roller, and a flexible pull unit mounted in winding relation on the roller and adapted to overlie the second support and connected along its outer edge to one edge of the transfer sheet; the frame including depending legs and the frame attaching means comprising brackets adapted to be secured to said other support and in which the legs are mounted; with means mounting one leg on the frame for adjustment lengthwise thereof.

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