

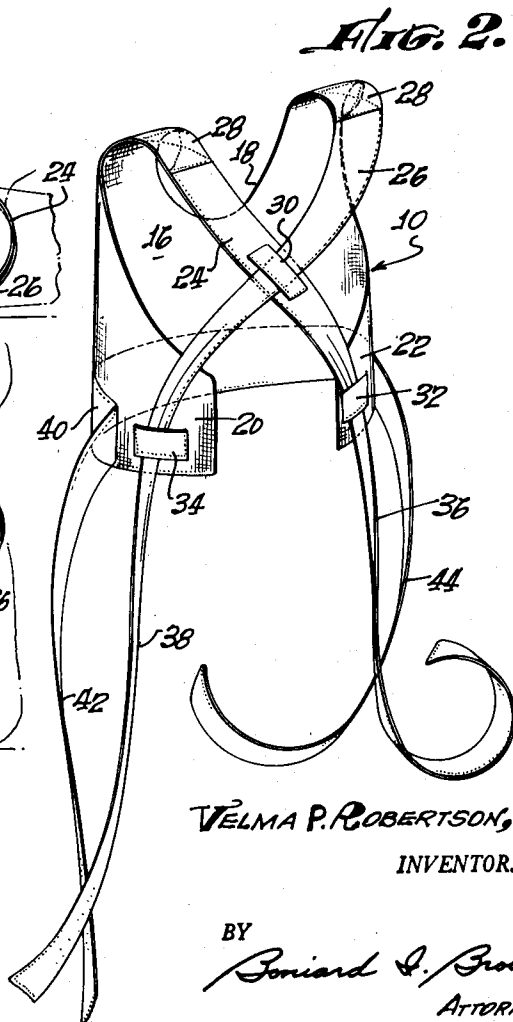
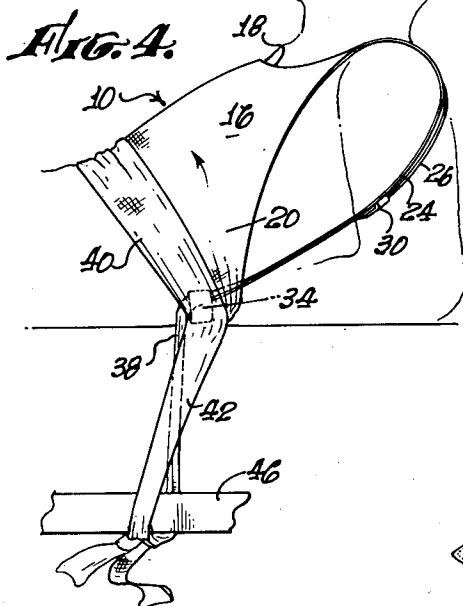
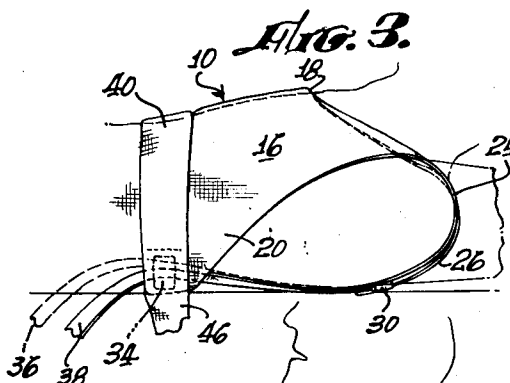
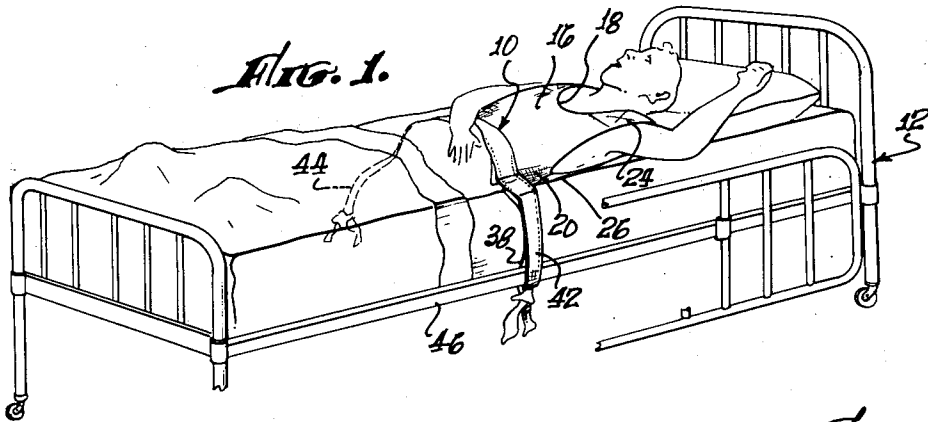
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V. P. ROBERTSON

3,137,294

PATIENT RESTRAINT DEVICE

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VELMA P. ROBERTSON,
INVENTOR.

BY
Bonard L. Brown
ATTORNEY.

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3,137,294

PATIENT RESTRAINT DEVICE

Velma P. Robertson, 446 N. Wabash, Glendora, Calif.,
assignor of fifty percent to Boniard I. Brown, West
Covina, Calif.

Continuation of application Ser. No. 858,713, Dec. 10,
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5 Claims. (Cl. 128—134)

The present invention relates generally to a new and improved patient restraint device; more particularly, it relates to improvements in restraint devices for use in preventing a patient from rising or falling from a bed to maintain control of the patient.

The present application is a continuation of application Serial No. 858,713, filed on December 10, 1959, and now abandoned.

Various restraint devices have heretofore been utilized for controlling patients and for preventing them from rising or falling from bed. The devices are particularly useful in restraining patients who are mentally irresponsible or who might be injured by getting out of bed, such as persons upon whom surgical operations have been performed, patients suffering labor pains in maternity cases, and individuals under the influence of opiates. It is desirable that such a device be comfortable and allow restricted movement of the patient.

Restraint devices or garments of the prior art have been characterized by certain shortcomings and disadvantages. They have generally been somewhat complicated and relatively expensive to fabricate. Many utilize buckles or other mechanical devices which complicate the installation and removal of the device, and which render them more difficult to launder or clean. The devices are often uncomfortable for a patient in that they involve heavy materials or straps which impress themselves relatively sharply against portions of a patient's body. Many devices are difficult to install on a patient and involve a degree of skill. Many require considerable movement of the patient for installation.

The present invention provides a restraint device which comprises a front panel from which back straps extend over the shoulders of a patient, cross at the patient's back, extend through loops on side portions of the front panel, and are secured to portions of a bed frame. In a preferred form of the invention, a band extends across the lower portion of the front panel and restrains the patient substantially at the waistline. Securing straps extend from the front panel or the band and are secured to portions of the bed frame. The device is therefore of simplified construction and is inexpensive to manufacture. It is conveniently and simply installable without appreciable movement of the patient relative to the bed. It is secured simply by the tying of straps to portions of a bed frame. Adjustability is provided by selection of the lengths at which straps are tied to provide a desired degree of restraint while permitting limited movement of the patient. The straps may be secured to portions of the bed which are beyond the patient's reach. The device is uniquely simplified and effective. An important feature of the invention is its operation to provide effective restraining forces in response to efforts of a patient to rise, in a manner hereinafter described in detail. The restraining forces are produced without appreciable discomfort to the patient through the engagement of the back straps with loops on the side portions of the front panel, and through the cooperation of the securing straps with these elements.

It is an object of the present invention to provide a new and useful patient restraint device.

An object of the present invention is the provision of a restraining device for patients which produces effective

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restraining forces in response to efforts of a patient to rise. It is an object of the invention to provide patient restraining means capable of preventing a patient from rising from or falling out of bed while permitting a selected degree of freedom of movement.

An object of this invention is the provision of a patient restraint device which is adjustable to permit a selected degree of freedom of movement of a patient.

It is an objective of the present invention to provide a restraint device which is easily and conveniently installable on a patient without requiring substantial movement of the patient relative to a bed.

An object of the invention is the provision of an effective patient restraint device of simplified and inexpensive construction.

Another object of this invention is to provide a patient restraint device utilizing no buckles or other mechanical securing means, thereby rendering the device more comfortable and more easily cleanable.

It is another object of the present invention to provide a patient restraint device which provides a relatively high degree of comfort for the patient.

Other objects, features and advantages of the present invention will become apparent to those versed in the art from a consideration of the following description, the appended claims and the accompanying drawings, in which:

FIGURE 1 is a perspective view showing the restraint device of the present invention installed on a patient lying in bed;

FIGURE 2 is a perspective view of the restraint device of the present invention;

FIGURE 3 is a fragmentary elevational view showing the restraint device of the invention installed on a patient lying in bed; and

FIGURE 4 is a fragmentary elevational view showing the restraint device of the invention in operation to restrain a patient attempting to rise from a bed.

Referring to the drawing, and particularly to FIGURES 1 and 2, there is shown a patient restraint device 10 of the present invention installed on a patient lying in a bed 12. The restraint device or garment 10 includes a front panel or bib panel 16 having a contoured upper edge which defines a low neckline 18, and having side portions 20, 22 extending therefrom to fit partially about the sides of a patient. Extending from the front panel are shoulder or back straps 24, 26 which cooperate with the side portions 20, 22 to define large openings for the shoulders of the patient. The back straps extend over the shoulders of a patient and are preferably provided with a light padding 28. The back straps cross at the back of the patient, one strap 26 passing through a loop 30 attached to the other strap 24, as shown in FIGURE 2. The back straps 24, 26 pass through respective loops 32, 34 attached to side portions 22, 20, and extend a considerable length beyond these loops to provide tension straps 36, 38.

Attached across the lower portion of the front panel 16 is a torso band 40 from which extend elongated securing straps 42, 44.

In installing the restraint device of the present invention on a patient, the patient need be moved only slightly. The device is arranged as indicated in FIGURE 2, with the back straps being pulled upwardly through the loops 32, 34 to provide ample accommodation for the arms of the patient during the installation. The device is simply positioned on the patient with the patient's head extending through the opening between the shoulder or back straps and with the patient's arms extending through the large openings between the side portions 20, 22 and the back straps 24, 26. With the crossing back straps thus positioned on the patient, the straps are tightened by pulling upon the tension straps 36, 38 to move them relative to

the loops 34, 32. Tension straps 36, 38 are then tied to portions of the bed frame, such as the rails 46. The securing straps 42, 44 are also secured to bed portions such as the rails 46. It will be observed that the loops 32, 34 underlie the securing straps 42, 44 when the restraint device is installed on a patient.

From the foregoing, it will be appreciated that the restraint device of the present invention is readily installable on a patient with a minimum of effort and with relatively little movement of the patient.

With the restraint device installed on a patient, the patient is firmly but comfortably restrained. As the patient attempts to rise, his mid-section is restrained by the securing torso band and the securing straps 42, 44. More importantly, the tension straps are tightened and exert force at loops 32, 34, so that stress is produced in the back straps 24, 26 to exert restraining force on the patient's shoulders. The restraining force is distributed over the front panel 16. The back straps are slidable relative to side portions 20, 22 and torso band 40 by means of the loops 32, 34. This permits the back straps to tighten and to pull on loops 32, 34 and on the front panel to provide effective restraining forces on the patient. In effect, the patient works against himself, because the forces exerted in attempting to rise produce restraining forces by means of the novel arrangement of the back straps, the loops, the securing straps and the tension straps. It will be understood that there is provided a firm but gentle restraining effect which, because the restraining forces are spread over a considerable area, results in no substantial discomfort of the patient.

It will be observed that the restraint device is readily adjustable to provide a selected degree of restraint. The securing straps 42, 44 and the tension straps 36, 38 may be tied at selected lengths to provide a desired degree of slack. It will also be observed that the straps may easily be secured to a bed frame at points beyond the reach of a patient to prevent the patient from releasing himself.

Those skilled in the art will appreciate that the present invention achieves the objects and realizes the advantages hereinbefore mentioned. An extraordinarily effective device is provided. The device is of simplified construction and is relatively inexpensive to fabricate. The restraint garment is conveniently and easily installable on a patient by relatively unskilled personnel without requiring substantial movement of the patient. The device provides novel means for producing effective restraining forces when a patient attempts to rise. The device operates in a manner which results in a minimum of discomfort to a patient. It is readily adjustable to provide a selected degree of patient freedom. The restraint device is free of any buckles or other mechanical devices which might cause discomfort and which are subject to deterioration and render laundering more difficult.

Although a specific embodiment of the present invention has been illustrated and described herein, it will be understood that the same is merely exemplary of presently preferred embodiments capable of attaining the objects and advantages hereinbefore mentioned, and that the invention is not limited thereto; variations will be readily apparent to those versed in the art, and the invention is entitled to the broadest interpretation within the terms of

The inventor claims:

The invention claims:

1. A patient restraint device comprising a front panel having side portions adapted to extend partially about the patient, a pair of back straps connected with the front panel and adapted to extend over the shoulders and to cross at the back of the patient, interengaging loop means for providing sliding engagement between respective side portions of said front panel and the respective back straps, whereby said back straps slide along their respective lengths relative to the respective side portions of the front panel, and strap means extending from the lower portion of the front panel for securing both side portions of the

panel to a bed to restrain the patient's mid-section, said back straps having elongated portions extending beyond said interengaging loop means for attaching the back straps to portions of the bed, said back straps tightening and being stressed upon an attempt of the patient to rise to exert restraining force on the patient's shoulders and chest and to transmit stress at said loop means to exert restraining force across the front panel, said sliding engagement at the loop means permitting said tightening of the back straps and providing an exchange of stress between the back straps and the lower portion of the front panel, whereby restraining force is distributed over the shoulders, chest and midsection of the patient.

2. A patient restraint device comprising a front panel to extend partially about the patient, said front panel having side portions adapted to partially encircle the patient, a pair of back straps connected with the front panel and adapted to extend over the shoulders and cross at the back of the patient, interengaging loop means for providing sliding engagement between said respective front panel side portions and the respective back straps, whereby said back straps slide along their respective lengths relative to the respective side portions of the front panel, a torso band attached to the front panel, and means for securing the torso band to portions of a bed to restrain the patient's mid-section, said sliding engagement means being disposed adjacent to the torso band and underlying said means for securing the torso band, said back straps having elongated portions extending beyond said engagement with said interengaging loop means for attachment of the back straps to portions of the bed, said back straps tightening and being stressed upon an attempt of the patient to rise to exert restraining force on the patient's shoulders and chest and to transmit stress at said loop means to exert restraining force across the torso band and front panel, said sliding engagement at the loop means permitting said tightening of the back straps and providing an exchange of stress between the back straps and the lower portion of the front panel, whereby restraining force is distributed over the shoulders, chest and midsection of the patient.

3. A patient restraint device comprising a bib panel having side portions adapted to extend partially about the patient and covering the front of the patient's torso substantially to the waistline, a pair of back straps connected with the bib panel and adapted to extend over the shoulders and cross at the back of the patient, loop means on said bib panel side portion slidably engaging the respective back straps at opposite sides of the patient, whereby the back straps are slidable along their respective lengths relative to the respective side portions of the bib panel, said respective back straps having elongated portions extending beyond the loop means on the bib panel side portions for attachment of the back straps to portions of the bed, a torso band attached to the bib panel, and means for securing the torso band to portions of the bed said back straps tightening and being stressed upon an attempt of the patient to rise to exert restraining force on the patient's shoulders and chest and to transmit stress at said loop means to exert restraining force across the torso band and front panel, said sliding engagement at the loop means permitting said tightening of the back straps and providing an exchange of stress between the back straps and the lower portion of the front panel, whereby restraining force is distributed over the shoulders, chest and midsection of the patient.

4. A restraint device for a patient, comprising a front panel having side portions, a torso band attached to the lower portion of the front panel to partially encircle the patient, securing straps extending from respective ends of the torso band for securement to portions of the bed frame, and back straps connected with the front panel and adapted to extend over the patient's shoulders to cross at the back, each of said side portions of the front panel carrying a loop through which one of said back straps passes, said loops being positioned to allow the back straps to slide

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relative to the front panel along the direction of their lengths and in a direction generally transverse to the torso band, said back straps extending from said loops to provide tension straps for securement to portions of a bed frame, whereby upon an attempt of the patient to rise stress is produced in the back straps and force is exerted by the torso band, the front panel and the back straps to restrain the patient.

5. A restrain device for a patient, comprising a front panel having side portions to partially encircle the patient, a torso band attached to the lower portion of the front panel to partially encircle the patient, securing straps extending from respective ends of the torso band for securement to portions of the bed, and back straps connected with the front panel and adapted to extend over the patient's shoulders to cross at the back, each of said side portions carrying a loop through which one of the back

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straps passes, said loops being positioned to allow the back straps to slide relative to the front panel along the directions of their respective lengths and in a direction substantially transverse to the torso band, said back straps extending from said loops to provide tension straps for securement to portions of the bed frame, said securing straps overlying said side portions and said loops, whereby upon an attempt of the patient to rise stresses are produced in the back straps and force is exerted by the torso band, the front panel and the back straps to restrain the patient.

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