To all whom it may concern:

Be it known that I, LUCY DEPERE MOTE, a subject of the King of Great Britain, residing at 5 West Eaton Place, Westminster, in the county of London, England, have invented certain new and useful Improvements in Devices for Supporting and Carrying Invalids or Patients, of which the following is a specification.

This invention relates to devices or structures for use with invalid beds or for medical, surgical or maternity use, the chief object being to provide a supporting table which enables a patient to be easily moved thereon from the bed without being lifted, the device being readily movable away from the bed for enabling the bed to be made and the mattress straightened. The device may be used as an operating table or a chair, and it can be adapted for various nursing treatments in medical, surgical or maternity work.

According to this invention the device comprises a table or bracket which is so supported on a frame that it can be placed or superimposed on the bed mattress so as to extend a substantial distance across the same; owing to the table or bracket being placed or superimposed on the bed mattress it is practically on the same level and although it may be actually supported on the mattress it is preferably independently supported. The patient is practically rolled from the bed on to the table and owing to the table extending across the bed as aforesaid very little movement by the patient and small effort by the nurse or other attendant is required. When the table is supported on the bed the frame to which the table may be hinged or secured may also have one or more struts adapted to be placed or moved outwardly to form supports for the table when it is not supported on the mattress, these struts being moved outwardly as the device is moved away from the bed. In another construction the frame is such as to extend under the bed and at one side thereof a support or supports are provided which carry the table or bracket in such manner that it is supported at one of its sides so that the major part of the table lies over the main part of the frame. Thus the device can be moved close to the bed so that the side supports lie against the side of the bed in which position the frame is under the bed and the table or bracket above the mattress at about the same level. A single support may be provided and this construction enables the table to be adjustable from a normal horizontal position to enable the patient to be supported in a reclining position. The table may have hinged or adjustable end portions which may be so adjusted as to form a kind of chair in which the patient may assume a sitting position. Generally, the device is constructed in the nature of a trolley to permit of ready movement from place to place although in some cases the wheels may be reversed as for example when the table is to be used as an operating table.

In order that the said invention may be clearly understood and readily carried into effect, the same will now be described more fully with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of one form of the device showing the table in the supporting position.

Fig. 2 is a similar view showing the device folded when not required for use.

Fig. 3 is a transverse sectional view showing the device in position against a bed.

Figs. 4, 5 and 6 are perspective views illustrating a modified construction.

Figs. 7 and 8 are perspective views of a further modified construction.

A is a supporting table or bracket which may be made of any suitable material and may be covered with a blanket or the like. B represents two uprights of a frame having casters or small wheels B' and provided with adjustable curved legs C having casters C' the legs C being movable outwardly as shown in Fig. 1 to support the device or inwardly to the position shown in Fig. 2, when the device is not required for use.

The table A is provided with vertical supports A' at one of its edges adapted to slide in the uprights B and to be retained in any desired position by any form of clamping devices A' thus enabling the table to be supported at any desired height to suit various beds. In use the device is placed against one side of the bed with the supports A' and uprights B close against the bed as shown in Fig. 3, the table lying above and on the mattress and the legs being turned outwardly under the bed as shown. The patient can be rolled or turned over in the bed so as to lie on the table A and the device is then moved away from the bed slightly to enable hinged struts D extending from the
uprights B to be placed in slots or notches in the under side of the table so as to support the table in the horizontal position when the device can be wheeled away from the bed leaving the bed free to be made easy. While the patient is supported on the table operations such as massaging, irrigating, dressing, etc., may be carried out much more conveniently than when the patient is lying in the bed. The supports A may extend above the table and may be connected by a handrail A as shown. End portions (not shown in Figs. 1 and 2) may be fitted to the table A and may be adjustable to any inclined position and if desired made extensible as described in connection with the other modifications. The legs C may be turned inwardly to lie in the plane of the uprights and the table A may be hinged to its supports A so that it may be suspended in an approximately vertical position, the device thus assuming a practically flat condition, see Fig. 2, which enables it to be stored in a small space when not required.

The modification shown in Figs. 4, 5 and 6 is generally similar to that previously described, and comprises a table A rigidly secured in a horizontal position to supports A' at one side which supports are slidably fitted in uprights B at one side of a rectangular frame B having casters B' as shown, the frame being disposed under the table to impart stability to the device and adapted to extend under the bed when the device is moved into position for placing the table just above the mattress ready for the patient to be rolled or placed thereon without being lifted. The table may be covered with any suitable material and as shown end portions E may be hinged there-to and adapted to be clamped in the plane of the table as shown in Fig. 4 or in any inclined position as shown for example in Fig. 5, while the two end portions may be folded on to the table A as shown in Fig. 6. The end portions may be suspended from the table A in vertical position if desired. Suitable rails F may be hinged at the side of the table and may be retained in a raised position as shown in Fig. 5 to prevent the patient rolling off the table, or they may be retained in such positions as to permit of the patient being rolled on to the table when it is desired to move him from the bed, see Fig. 4. In Fig. 5 the device is shown fitted with an irrigating or douching appliance G and the table A with a commode H which is fitted in a plate which may be slidably fitted on to the table part and readily withdrawn if desired for which purpose a handle H' is provided on the plate as shown. In this example the table may be retained at any suitable height by clamping devices A'.

As shown in the drawings, the main section A of the table is beveled or gradually reduced in thickness toward its free edge and it will be seen that the lower face of the table is, when in operative position, horizontal throughout its width and lies in close contact with the top of a mattress. An important advantage of the invention is that a patient may be rolled onto and from the table without being lifted. This enables the patient to be transferred to or from the table with a minimum amount of moving and without the necessity for being bodily lifted from the mattress either to position the support beneath the patient or to remove it from such position.

The modification shown in Figs. 6 and 7 illustrates the tubular structure of the device without the covering plates or material for the table and the end portions. In this example the table A is formed at one side with a lug K supported on a horizontal pivot L carried by a support A' which is slidably fitted in an upright B on the side of a frame B having casters B'. The side of the table carrying the lug K is formed with a segmental portion M slotted to receive a clamping bolt M' which extends through a slotted part M2 on the upright B. By means of the pivotal connection of the table to the support A', the table can be set to any desired position and it is retained therein by the clamping bolt M' which clamps or locks the segmental portion M against the part M2. The slotted part M2 permits of the support A' and the table A being raised to the desired height and a clamping device A2 is shown for fixing the support A' in any desired position. Any usual or suitable form of lifting or raising device such as used in a lifting jack may be used. For example the support A' may be formed with a toothed rack with which engages a pinion on the frame or upright rotate by a crank or other handle. The construction of the device permits of the table being moved over the bed mattress when it is desired to place the patient thereon, or to move the patient from the table into the bed. The table portion need not be made so long as shown in the drawings so that it may serve as a seat when the one end portion is inclined upwardly and the other downwardly to form a kind of chair in which a patient can be comfortably and naturally seated. As shown in Fig. 7 clamping devices E' of any usual kind may be provided for retaining the end portions in the desired position and the end portions may be extensible for example by telescopic connections in the tubular framework. Owing to the device being constructed as a trolley it lends itself to many varied uses in hospitals, nursing homes and the like, for carrying the patients from one place to another and the patients can be readily
transferred from the bed to the device or vice-versa without discomfort and without considerable effort on the part of the nurse. A slidable cover plate may be used in all modifications fitted with any device as aforesaid and if desired means for heating the table may be provided, such as a hot water tank on a sliding plate or an electrical heating appliance. It may also be used as an operating table in which any suitable or known means may be provided for locking the wheels against movement. The device can also be used in doctors' consulting rooms and surgeries for the examination of patients and for performing slight or minor operations and being made as a trolley it can be readily moved to obtain the best light for the purpose in view and if desired locked in any position to which it is moved.

What I claim and desire to secure by Letters Patent of the United States is:

1. An apparatus for the purpose described comprising a frame including an upright portion and a support, formed by a relatively thin inflexible plate member, permanently connected to the upright portion and arranged to project horizontally therefrom over and in contact with the mattress of a bed, the connection between said support and frame being entirely remote from the edge thereof that extends over the bed, whereby a patient may be rolled from the mattress onto said support, or vice versa, without being lifted or affecting the connection between the frame and said support.

2. An apparatus for the purpose described, comprising a frame including an upright portion and a support, formed by a relatively thin inflexible plate member, permanently connected to the upright portion and arranged to project horizontally therefrom over and in contact with the mattress of a bed, the connection between said support and frame being entirely remote from the edge thereof that extends over the bed, whereby a patient may be rolled from the mattress onto said support, or vice versa, without being lifted or affecting the connection between the frame and said support.

3. An apparatus for the purpose described, comprising a frame including an upright portion and a flat table-like support arranged to project horizontally from the upright portion over and in contact throughout its width with the mattress of a bed, said support having its upper surface beveled slightly toward its free edge.

4. An apparatus for the purpose described, comprising a frame including an upright portion and a flat table-like support arranged to project horizontally from the upright portion over and in contact throughout its width with the mattress of a bed, said support including a main section and auxiliary sections adjustably connected to the main sections, whereby the effective length of the support may be varied, the upper surface of the main section being beveled toward its free edge.

LUCY DEPERE MOTE.