To all whom it may concern:

Be it known that I, LEAH E. BERNIER, a citizen of the United States, and a resident of Kelso, in the county of Cowitz and State of Washington, have invented certain new and useful Improvements in Bed Bathing Apparatus, of which the following is a specification.

This invention relates to a bed bathing apparatus.

The object of the invention is to provide an apparatus which may be easily and quickly attached to a bed and arranged for bathing a patient in the bed without greatly disturbing the patient.

It is also an object of the invention that the parts of the apparatus may be easily foldable into a compact bundle so that the same may be transported from place to place by a nurse or doctor.

It is a further object of the invention that the apparatus be extremely simple in construction and adapted to be arranged for bathing a person by a nurse without other assistance if such is necessary.

Other objects and objects relating to details of construction, combination and arrangement of parts will hereinafter appear in the detailed description to follow.

The invention is illustrated by way of example in the accompanying drawings, in which:

Figure 1 is a perspective view showing the bathing apparatus when applied to a bed and fully assembled for use.

Figure 2 is an end elevation of the apparatus, when fully assembled as shown in Figure 1.

Figure 3 is a detailed view showing the manner in which the frame members of the apparatus are detachably held to a bed, and

Figure 4 is a detailed view showing in detail the manner in which the frame members are hinged to one another.

Referring to the drawings more particularly, the bed shown in Figure 1 in this instance is of the type usually used in hospitals and consists of the usual head frame 10, foot frame 11, and the side members 12.

The frame, or supports, or the bathing apparatus consist in the two side members 13, each of which is hingedly connected at its rear end to an upwardly extending frame member 14 as at 15.

The hinged ends of the members 13 are bifurcated and likewise the associated ends of the frame members 14. Each member 13 is connected to its associated member 14 by a link or hinging element 16, Figure 4, said link being arcuate in shape and having its ends pivotally connected to the members 13 and 14 by the means of pins as at 17. The upwardly extending frame members 14 are in turn connected at their upper ends by a connector member 18, said frame members 14 being pivotally connected to the member 18 as at 19, Figure 2. Also the member 18 is formed with an upwardly extending tubular member 20, the purpose of which will later be explained. Between the upstanding frame members 14 adjacent their upper ends there is disposed a pair of links 21, said links being pivotally connected at their adjoining ends as at 22, and each link being formed with a slot 23 through which a suitable stud 24 extending from the associated frame member 14 extends and carrying a nut 25. As is seen by this construction the frame members 14 upon loosening of the nuts 25 may be folded one upon the other.

Between each frame member 14 and associated longitudinal frame member 13 there is extended a pair of links 26 and 27, said links being pivotally connected at their adjoining ends by the means of a pin as at 28 and in a similar manner each link has its other end connected to the associated frame member. The purpose of the links is to hold the frame members 14 in their raised position, and also as is obvious these links will permit folding movement of the longitudinal members 13, that is, permit the same to be folded upon the members 14 to form a compact bundle or unit of the frame members.

For supporting the different frame members, I provide a plurality of U-shaped clamp members 29, preferably four in number and each clamp member being adapted to be applied to the side rail of the bed as illustrated in Figure 1. Also each clamp member is provided with a screw 30 and wing nut 31 by which the same may be easily removed or applied to the bed rail. The construction of this clamp is specifically shown in Figure 3, and as is seen from the upper side of each clamp there extends a tubular member 32. From each frame member 13 of the bathing apparatus there is extended downwardly a stud 33 which is threaded and adapted for receiving an
teriorly threaded tubular member 34, Figure 3. The tubular member 34, in each instance, is adapted to slidingly enter the associated tubular stand member 32. By this arrangement the side members 13 are amply supported and the end frame members 14 are likewise supported by the side members through the links 26 and 27.

In order to form a container or receptacle in which the patient may be bathed, I provide a water proof sheeting such as generally indicated at S, which may be of rubber or the like, and adapted to be placed beneath a patient in the manner a bed sheet is placed beneath a patient. About the edge of sheet S there is secured a number of rings 35 and upon the side frame members 13 there is secured a number of snap hooks 36 whereby the marginal edge of the sheeting S may be raised and so held. At the forward end of the sheet S there is secured a strap 37 which is adapted to be extended about the head frame 10 in the manner shown, and which carries a snap 38 at its free end which may be connected with a ring 39 secured to the sheeting S. The rear end of the sheeting is held elevated by a snap 40 which is secured to the connecting member 18, which in turn connects with a ring 41 secured to the sheeting S. Also a snap may be placed on each rear frame member 14 as at 42 and connected with a suitable ring carried by the sheet S.

As is obvious by holding the marginal sides of the ends of sheet S in the manner shown and as described and illustrated in Figure 1, there is formed a receptacle or container in which the patient may be immersed in water. As is seen the sheet is held slightly inclined toward the forward end of the bed and for this reason the water will of course collect in the rear end of the sheet. For draining the water from the sheet there may be provided a hose 43 which may be suitably connected as at 44 through the sheeting S. Also the hose 45 may be equipped with a clamp valve 45 so that the same may be closed when desired. Beneath the hose 43 there may be placed a bowl or the like as at 46 for catching the water which would be dislodged by the hose, or if a drain is convenient the hose may be led to the drain and thus doing away with the need of the receptacle 46.

For providing means to immediately wash and bathe a patient, I associate with the coupling member 18 of the frame members 14 a rod 47, said rod having its lower end extending into the tubular member 20 and detachably held by a thumb screw 49. At the upper end of the rod there is provided a split sleeve 50 having extensions at its free end as shown, which is suitably held against downward movement upon the rod by a thumb screw 50'. To the sleeve extensions there is pivotally connected the one end of an extension member 51 as at 53. Extending between the rod 47 and extension member 51 there is a pair of links 53. The lowermost link being longitudinally slotted and adapted for receiving a bolt carried by the uppermost link, and said bolt in turn being provided with the usual wing nut as at 54 whereby the links 53 may be locked in their extended position and support the extension member 51.

Adjacent the outer end of the extension member 51 there is secured the upper end of a supporting arm 55 which has a forwardly extending portion at its lower end upon which a water pail 56 is seated, and said pail having secured to its upper end the one end of a strap 57, the other end of said strap being slotted and adapted to be hooked upon the end of the extension 51 for holding the pail 56 in position. Also the extension member 51 may be formed with the hooks 58, one of said hooks being used for supporting a soap container 59 through the means of a frame 60. The soap container 59 is preferably cylindrical in shape tapering at its lower end as at 61, while the frame 60 consists in a rod member 62 having its lower end formed with a fork 63 upon which the tapered portion 61 of the soap container 62 may be seated. The upper end of rod 62 terminates in a laterally extending portion 64 which is formed with a hook member 65 at a point intermediate its length, said hook member extending over the forward hook 62. Also the portion 64 of the rod 62 may be formed with an extension 66 to serve for holding the soap container 59 in a vertical position as shown.

To the lower end of the water pail 56 there is connected a flexible hose 67 and a similar hose 68 is connected to the lower end of the soap container 59. A clamp valve 70 is provided for the hose 67 and a similar clamp valve 71 for the hose 68. The clamp valve 71 should preferably be of the adjustable type so that a predetermined amount of liquid soap may be allowed to run through the hose 68. The hose from the water pail 56 and the hose from the soap container 59 are connected by a Y-connection as at 72 so that both may communicate with the hose 73. The hose 73 at its other end is attached to an ordinary bath spray nozzle 74, and said nozzle carrying a sponge 75 by which water may be applied to the body of a patient.

The pail 56, in this instance, is adapted to supply the water for bathing the person, however it is to be understood that the pail may be obviated by connecting the hose 67 to a suitable source of water supply as a spigot or the like if such is convenient and under plausible pressure.

In the use of the present invention, assuming that the apparatus has been folded into...
a compact unit and it is desired to properly assemble or arrange the same, as is shown in Figure 1, the side frame members 13 are first unfolded and likewise the links 26 and 27 extending between the frame members 13 and end frame members 14, and then the end frame members 14 are unfolded to the positions shown in Figure 1. The links 21 are then brought into proper positions, or in other words, in alignment with each other and the nuts 25 tightened. The tubular portions 34 may now be threaded upon the studs 33 of the frame members 13 and then a pair of clamps 29 may now be positioned upon each bed rail 12 and the tubular members 34 extended to the tubular extensions 32 of the clamps 29. The sheet 8 may now be spread beneath the patient and properly connected with the frame members 13 and 14 in the manner previously described and also connected with the head frame 10 of the bed. The hose 43 may now be opened by manipulating the valve 45 and receptacle 46 and placed therewith.

The extension member 51 may now be properly positioned and the water pail 56 and the soap container 59 also placed in position and connected with their respective hose 67 and 68. The hose 67 and 68 are of course previously connected with the spray 74. The pail 56 may now be filled with water and the soap container 59 filled with a liquid soap and the flow of water from the pail 56 regulated by the valve 70, while the soap from the container 59 may be regulated by the valve 71, the sponge 75 may be passed over the body of the patient and in this way the patient may be given a thorough and cleansing bath.

While I have shown and described the preferred form of my invention, I wish it to be understood that I am aware of the fact that the construction, combination and arrangement of parts may be changed by those skilled in the art without departing from the spirit of the invention as indicated by the appended claims.

I claim:

1. A bathing apparatus of the character described, comprising a sheet of water proof material and adapted to cover a bed, a pair of side frame members adapted to be detachably connected to the side frame members of the bed, means whereby the associated edges of the sheet may be connected with said side frame members, a pair of frame members extending between the rear ends of said side frame members and the last named frame members extending upwardly, means whereby the rear end of the sheet may be connected with the said upwardly extending members to hold the rear end portion of the sheet in an elevated position, and means whereby the forward end of the sheet may be connected with the head of the bed whereby the forward portion of the sheet may be held in an elevated position and thereby forming a container or receptacle in which a person may be bathed.

2. In an apparatus of the character described, including a bed having a head frame which is elevated with respect to the mattress thereof, a water proof sheet adapted to be spread upon the mattress of the bed, a frame consisting in a pair of side members, a pair of connecting members between the rear ends of the side members, said connecting members being elongated and each side member having its one end pivotally connected to the one end of a connecting member, and said connecting members extending upwardly and having their upper ends pivotally connected to each other, whereby they may be folded one upon the other and the side members in turn folded upon said connecting members, means whereby the side frame members may be detachably connected to the side rails of the bed so that the same will be held in an elevated position with respect to the mattress of the bed, means whereby the marginal edge of the sheet may be detachably connected with the side frame members, means whereby the forward end of the sheet may be detachably connected with the head frame of the bed, and means whereby the rear end of said sheet may be detachably connected with the end connecting members of said side frame members whereby there will be formed a receptacle in which a person reclining may be bathed.

3. A bathing apparatus of the character described, comprising a sheet of water proof material and adapted to cover a bed, a pair of side frame members adapted to be detachably connected to the side frame members of the bed, means whereby the associated edges of the sheet may be connected with said side frame members, a pair of frame members extending between the rear ends of said side frame members and the last named frame members extending upwardly, means whereby the rear end of the sheet may be connected with the said upwardly extending members to hold the rear end portion of the sheet in an elevated position, and means whereby the forward end of the sheet may be secured to an elevated point.

4. A bathing apparatus of the character described, comprising a sheet of water proof material adapted to cover a bed, a pair of side frame members adapted to be detachably connected to the side frame members of the bed, means whereby the corresponding edges of the sheet may be connected with said side frame members, a pair of end frame members pivotally secured to each other and each having one of its ends secured to one of the side frame members, said end frame members being adapted to extend upwardly with respect to the side.
frame members, means for securing the rear end of said water proof sheet to said end frame members, and means for securing the forward end of the water proof sheet to an elevated point.

5. In an apparatus of the character described, a frame consisting in two side frame members adapted to be detachably secured to the rails of a bed, a pair of end frame members each having its one end pivotally connected to one of the side frame members and the other ends of said end frame members being pivoted to each other and adapted to be folded one upon the other and the side frame members being adapted to be folded with said end frame members to form a compact unit.

6. In an apparatus of the character described, a frame comprising a pair of side members, a pair of end members each having its one end pivotally connected to a similar end of one of said side members and having their other ends pivotally connected to each other and adapted to extend upwardly with relation to the side members when said side members are secured to the side rails of a bed.

7. In an apparatus of the character described, a frame comprising a pair of side members, a pair of end members each having its one end pivotally connected to a similar end of one of said side members and having their other ends pivotally connected to each other and adapted to extend upwardly with relation to the side members when said side members are secured to the side rails of a bed, and means supported between the pivoted ends of said end frame members to permit a bracket arm to be detachably connected therewith for supporting a pail of water in an elevated position with respect to the bed to which the side frame members may be secured.

8. In an apparatus of the character described, a frame comprising a pair of side members, a pair of end members each having its one end pivotally connected to a similar end of one of said side members and having their other ends pivotally connected to each other and adapted to extend upwardly with relation to the side members when said side members are secured to the side rails of a bed, and a sleeve supported between the pivoted ends of said end frame members and adapted for detachably supporting a bracket arm whereby a pail may be supported for the purpose described.

9. In an apparatus of the character described, a frame comprising a pair of side members, a pair of end members pivotally connected to each other and each member having its one end pivotally connected to one of the side members, and a pair of link members extending between each side member and one of the end members.

10. In an apparatus of the character described, a frame for supporting a sheet of water proof material for bathing a patient, said frame comprising a pair of side members, a plurality of clamps adapted to be secured upon each side rail of a bed, means whereby each side member of the frame may be detachably supported by said clamps in a raised position with respect to the rails of the bed, and foldable frame members connecting the rear ends of said side frame members.

11. In an apparatus of the character described, a frame for supporting a sheet of water proof material for bathing a patient, said frame comprising a pair of side members, a plurality of clamps adapted to be secured upon each side rail of a bed, a vertical tubular member carried by each clamp, a plurality of rods carried by each side member adapted to be inserted in said tubular members, whereby the side frame members may be supported in an elevated position with relation to the sides of the bed, and foldable frame members connecting a pair of similar ends of the side frame members.

12. In an apparatus of the character described including in combination, a frame, comprising a pair of side members and a pair of end members, each end member having its one end pivotally connected to the one end of a frame member, and the remaining ends of said frame members pivotally connected to each other, means for detachably supporting said side frame members to the side rails of a bed, said means being adapted to permit vertical adjustment of said side frame members.

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