No. 885,307. PATENTED APR. 21, 1908.

G. H. WHALEY.

INVALID APPLIANCE.

APPLICATION FILED MAR. 30, 1907.

Fig. 1.

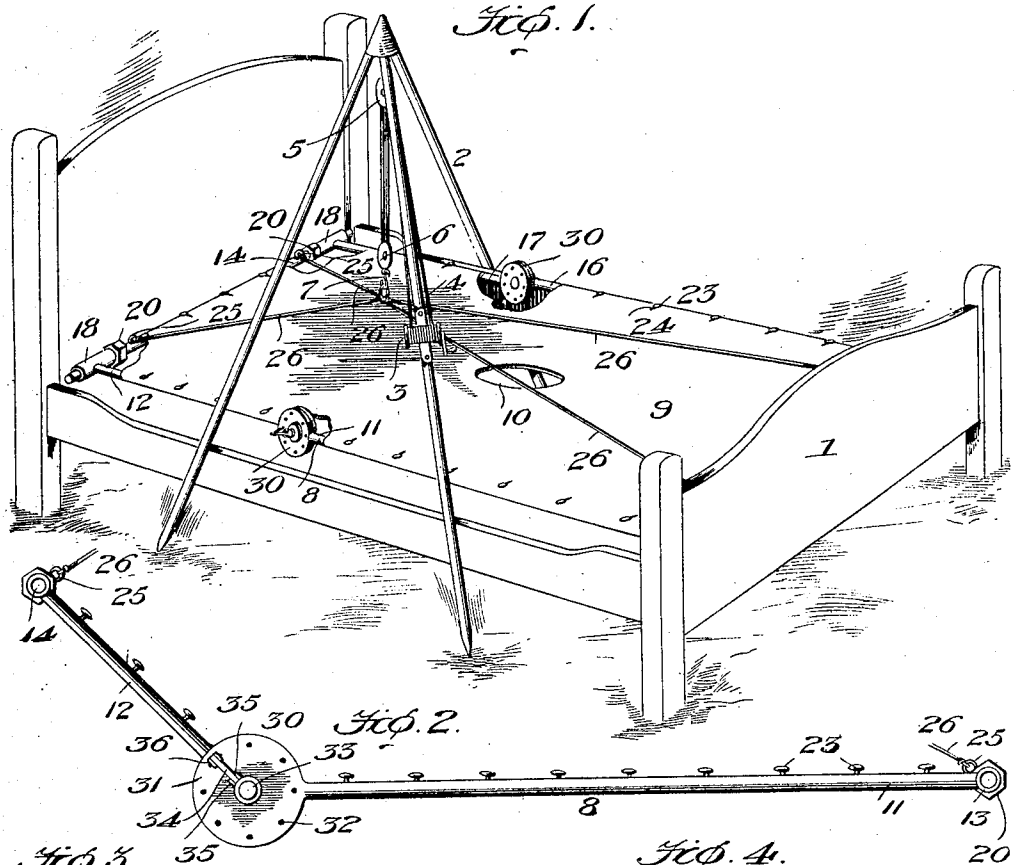


Fig. 2.

Fig. 3.

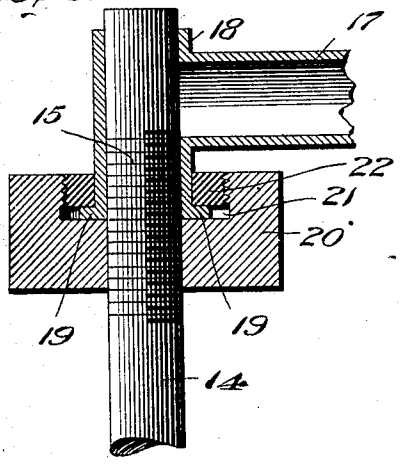


Fig. 4.

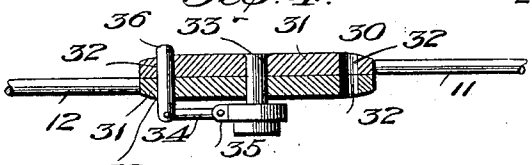
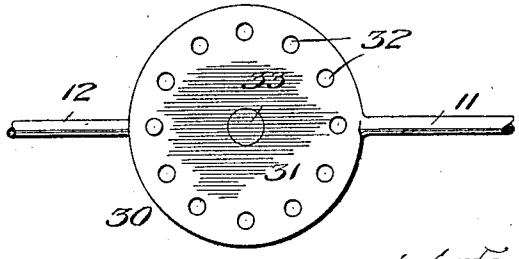


Fig. 5.



WITNESSES:

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INVALID APPLIANCE.

No. 885,307. Specification of Letters Patent. Patented April 21, 1908.

Application filed March 30, 1907. Serial No. 365,461.

To all whom it may concern:

Be it known that I, GEORGE H. WHALEY, citizen of the United States, residing at Maysville, in the county of Mason and State of Kentucky, have invented certain new and useful Improvements in Invalid Appliances, of which the following is a specification.

My invention relates to invalid appliances; and it contemplates the provision of a simple and safe apparatus through the medium of which an invalid may be easily and conveniently lifted from the bed on which he is resting without subjecting the invalid to shock or discomfort, and with which an invalid may be readily supported in a sitting posture when necessity demands.

To the attainment of the foregoing objects, the invention consists in the peculiar construction, novel combination and adaptation of parts hereinafter described and particularly pointed out in the claims appended.

In the accompanying drawings, which form part hereof: Figure 1 is a perspective view illustrating the apparatus constituting the best embodiment of my invention known to me as properly arranged relative to a bedstead. Fig. 2 is a detail side elevation illustrating the head portion of the invalid support as adjustably fixed in an inclined position. Fig. 3 is an enlarged, detail section illustrating the means for adjusting and adjustably fixing the adjustable side bar of the invalid support. Fig. 4 is an enlarged detail view showing one of the connections between the body portion and the head portion of the invalid support. Fig. 5 is a side elevation of said connection.

Similar numerals designate corresponding parts in all of the views of the drawings, referring to which:

1 is a bedstead of the ordinary or any other construction suitable to the practical use of my invention, and 2 is the portable frame of my novel apparatus. The said portable frame is preferably, though not essentially, of tripod form, and is designed to be positioned as illustrated relative to the bedstead 1. On one leg of the frame 2 is mounted a windlass 3, and to the drum of said windlass is connected a cable 4 which is arranged in the ordinary or any other suitable manner relative to a block 5 connected to the apex of the frame 2, and a second and vertically movable block 6 having a hook 7, whereby it will be manifest that when the drum of the windlass 3 is turned in one direction the block 6 will be raised, while when said drum is turned in the opposite direction the block 6 will be permitted to move downward.

8 is the frame of the invalid support comprised in the apparatus, and 9 is the flexible portion of said support; the said flexible portion being preferably of heavy canvas or analogous material and being provided with an opening 10 through which an invalid may use a vessel after the invalid-support is raised from the bed as hereinafter pointed out in detail. The invalid-support frame 8 is preferably of metal and comprises side bars 11 and 12 connected together as presently described, end bars 13 and 14 fixed to and extending at right angles to said side bars and having threaded portions 15, Fig. 3, side bars 16 and 17 connected together as presently set forth and having hollow T-heads 18 loosely receiving the end bars 13 and 14 and also having flanges 19, Fig. 3, at the inner ends of said T-heads, nuts 20 mounted on and engaging the threaded portions 15 of the end bars 13 and 14 and having recesses 21 in their outer sides receiving the flanged ends 19 of the T-heads 18, and threaded collars 22 engaging threads in said recesses and serving to retain the flanged ends 19 of the T-heads in the recesses without interfering with free rotation of the nuts 20 about the end bars 13 and 14. The flexible portion 9 of the invalid-support is detachably connected to the frame 8 through the medium of buttons 23 and complementary button-holes 24 or other suitable means, and hence it will be apparent that when necessary the flexible portion 9 may be readily removed from the frame 8 to be laundered and may then be as readily replaced and secured upon the said frame. When it is desired to remove the flexible portion 9 as stated, the nuts 20 are turned inward on the end bars 13 and 14 to move the side bars 16 and 17 inward and in that way slacken said flexible portion and render easy the detachment of the same, while after the flexible portion 9 is replaced on and fastened to the frame 8, the nuts 20 are turned outward on the end bars 13 and 14 so as to move the side bars 16 and 17 outward and thereby render the flexible portion 9 as taut as de-

sired. It will also be apparent that when the side bars 16 and 17 are moved outward by rotation of the nuts 20 in the proper direction, there is no liability of the said side bars being permitted to casually move inward and slacken the flexible portion 9.

At its corners the frame 8 of the invalid-support is provided with rings 25, and to these rings are connected cables 26 which are engaged with the hook 7 on block 6, whereby it will be manifest that when the drum of the windlass 3 is turned in the proper direction, the invalid-support with the invalid thereon may be lifted from the bed to permit of the invalid using a vessel or to admit of the bed clothing being conveniently changed, and this with but a minimum amount of effort on the part of the attendant operating the apparatus.

In order that the head portion of the invalid-support may be adjustably fixed at various angles of inclination to hold an invalid in a sitting posture, I prefer to connect the side bar 11 to the side bar 12, and the side bar 16 to the side bar 17 through the medium of the connections 30. These connections 30 are identical in construction, and therefore a detailed description of the one shown in Figs. 4 and 5 will suffice to impart a definite understanding of both. The said connection, Figs. 4 and 5, comprises disks 31 fixed to the side bars and having transverse apertures 32 adapted to be registered, a central pivot bolt 33 connecting the disks 31 together, a lever 34 pivoted to lugs 35 on the bolt 33 and arranged to swing outward and inward, and a fastening pin 36 pivoted to and susceptible of adjustment on the lever 34 and designed to be placed in registered apertures of the disks 31 to adjustably fix the said disks with respect to each other. It will be seen that by reason of the connection of lever 34 to bolt 33 and the connection of fastening pin 36 to said lever 34, the pin 36 may be drawn outward out of engagement with the aperture in the inner disk 31, and then when said inner disk 31 is adjusted to place another aperture thereof in register with the aperture 32 in the outer disk the pin 36 may be replaced in the position shown to adjustably fix the disks together and the head section of the invalid-support at the angle of inclination desired. The permanent connection of the fastening pin 36 to the disks in the manner described is obviously advantageous since it precludes loss or misplacement of said fastening pin and assures the same always being in position to enter the aperture of the inner disk that is registered with the single aperture in the outer disk.

From the foregoing it will be apparent that the head portion of the invalid-support may be expeditiously and easily fixed at various angles of inclination to the body portion thereof as the needs of the invalid resting on the support demand; also, that the adjustable fixture of the head portion is effected in such manner that there is no liability whatsoever of the head portion of the support slipping while in use, which is an important desideratum. It will be further apparent from the foregoing that the invalid-support may be raised and lowered in the manner before described irrespective of whether the head portion of the support rests in alinement with the body portion thereof or at an angle of inclination to said body portion.

Having described my invention, what I claim and desire to secure by Letters Patent, is:

1. In an apparatus of the character described, a supporting frame composed of side and end members, the side members being each provided with apertured disks that are pivoted together to form relatively adjustable head and body sections, a locking pin having a pivotal connection with the pivot of said disks and adapted to be engaged with the apertures in said disks to lock the head and body sections in the desired adjusted position, means for adjusting said side members laterally, and means for raising and lowering said supporting frame in its entirety, or the head section only.

2. In an apparatus of the character described, a supporting frame provided with a flexible cover and consisting of side and end members forming head and body sections, apertured disks carried by the ends of the head and body members and having a pivotal connection whereby the head section may be adjusted relatively to the body section, a locking pin pivotally attached to the pivotal connection between said disks and serving to retain said sections in their adjusted positions, means carried by the end members of the supporting frame for adjusting the side members laterally, and means for raising and lowering said supporting frame in its entirety or the head section thereof only.

3. In an apparatus for lifting invalids, an invalid-support having a flexible portion, and a frame carrying the flexible portion and made up of a body portion, a head portion, and connections intermediate the side bars of the body and head portions; the said connections respectively comprising a disk having a circular series of transverse apertures, a disk arranged against one side of the first mentioned disk and having a transverse aperture with which the apertures of said first mentioned disk are adapted to be registered, a central bolt connecting the disks, a lever pivoted to lugs on the bolt and arranged to swing outward and inward thereon, and a fastening pin pivoted to and movable with the lever and arranged to be placed in registered apertures of the disks.

4. In an apparatus for lifting invalids, an

invalid-support having a flexible portion, and a frame detachably connected to and carrying the flexible portion and made up of a side bar, end bars fixed to and extending at right angles from the side bar and having threaded portions, a side bar adjustable laterally on the end bars, and nuts mounted on and engaging the threads of the end bars and connected to and movable with the laterally adjustable side bar.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. WHALEY.

Witnesses:

A. D. COLE,

GEO. H. TRAXEL.