

Title (en)
ROBOTIC MOBILE AND MODIFIABLE BED WITH VERTICALIZATION

Title (de)
ROBOTISCHES MOBILES UND MODIFIZIERBARES BETT MIT VERTIKALISIERUNG

Title (fr)
LIT MOBILE ET MODIFIABLE ROBOTIQUE AVEC VERTICALISATION

Publication
EP 3373878 B1 20190522 (EN)

Application
EP 15813244 A 20151113

Priority
• CZ 2015801 A 20151110
• CZ 2015000137 W 20151113

Abstract (en)
[origin: WO2017080534A1] The robotic mobile and modifiable bed (1) consists of a mobile omnidirectional chassis (6) and a modifiable area (3) with a positioning system (2); while the omnidirectional chassis (6) consists of a central frame (7) and extensible frames (9, 9'); while in each of them there is a fixed axle (11) arranged, with omnidirectional wheels (14); while the positioning system (2) consists of head segment (30), back segment (31), femoral segment (29), calf segment (32) and foot segment (33); while the segments (30, 31, 29, and 32) are equipped with side rails (34); while the modifiable area (3) is adjustable to a position of the angular verticalization (5) using construction layout of the positioning system (2) and the omnidirectional chassis (6); while in the longitudinal axis of the central frame (7) there are the swinging baskets (23, 24) placed, in which bottoms there are firmly arranged feet of the extensible telescopic columns (27) which are from the opposite side pivotally placed in the femoral segment (29); while the femoral segment (29), extensible telescopic columns (27) and swinging baskets (23, 24) form a four-joint mechanism driven by the basket drives (25) and the lift change of the extensible telescopic columns (27); while in the omnidirectional wheels (14) of the fixed axle (11) of the omnidirectional chassis (6), there are rotary actuators placed; while the mutually consecutive segments and side rails (34) towards the segments are pivotally connected through staggered suspensions (41) and suspension bolts (42); while the side rails (34) of the segments (30, 31, 32) fold downward; while the pivotally tied suspension bolts (42) are driven by the side rail actuators (40) which are pivotally arranged in the segments (35) of central line, and complemented by the four-joint mechanism to enlarge the scope of lift; while the side rails (34) of the femoral segment (29) fold upward; while the position changes between the segments of the central line (35), and thus the relevant side rails (34) in transverse direction are realized by faults; while the fault between the femoral segment (29) and the calf segment (32), and the fault between the calf segment (32) and the foot segment (33) are formed by the staggered suspension (41) with suspension bolt (42) controlled by relevant actuator; while the fault between the head segment (30) and the back segment (31), and the fault between the back segment (31) and the femoral segment (29) are provided by arc guided rods (52, 52') firmly connected with the relevant segment on their one side, and by the opposite end extending into the handle (51, 51') with pulleys.

IPC 8 full level
A61G 5/00 (2006.01); **A61G 5/04** (2013.01); **A61G 5/14** (2006.01); **A61G 7/015** (2006.01); **A61G 7/05** (2006.01); **A61G 7/08** (2006.01)

CPC (source: EP KR)
A61G 5/006 (2013.01 - EP KR); **A61G 5/04** (2013.01 - EP KR); **A61G 5/14** (2013.01 - EP KR); **A61G 7/015** (2013.01 - EP KR); **A61G 7/0507** (2013.01 - EP KR); **A61G 7/08** (2013.01 - EP KR); **A61G 2203/14** (2013.01 - EP KR)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2017080534 A1 20170518; CZ 2015801 A3 20170308; CZ 306563 B6 20170308; EP 3373878 A1 20180919; EP 3373878 B1 20190522; KR 20180094887 A 20180824

DOCDB simple family (application)
CZ 2015000137 W 20151113; CZ 2015801 A 20151110; EP 15813244 A 20151113; KR 20187016577 A 20151113