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(54) Title: MEDICAL SUIT OF AXIAL LOADING WITH AUTOMATIC CONTROL SYSTEM

(57) Abstract: The area of application of the invention is the development of special cloths for treatment in clinical conditions of the motor function disorders at child's cerebrally palsy, disturbances in vascular system of brain (strokes), and other diseases followed by disturbances of motor coordination both of arms and legs, and also for measuring and registration of loads on patient body created by the suit. The suit contains coverall made of one (at least) fabric layer, and tensioning device. The tensioning device provides the creation of axial loading on the musculoskeletal system with use of buffers. The coverall is additionally provided with the system of loads measurement and registration containing power source, tensodynamometers with intensifiers placed in the fixed anatomic points of cloths, and analog-digital converter with USB cable, so the system converts analog signals into digital ones and transfers them to computer for operative analysis, imaging and registration. Each buffer has the strain sensor made in the form of tenso-clasp with strain-element. The system provides the measurement of loads in 20 points in the range not more than 15 kg, and the accuracy of loads measurement $\pm 3\%$. The mass of the loads measuring system is not more than 3,5 kg.



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