

Title (en)

DEVICE DISPLAYING AND CONTROLLING THE TRACTION APPLIED TO THE EXTENSION ARM OF AN ORTHOPAEDIC TABLE

Publication

EP 0194206 B1 19890201 (FR)

Application

EP 86400481 A 19860307

Priority

FR 8503460 A 19850308

Abstract (en)

[origin: EP0194206A1] 1. Device for displaying and controlling (10) the force applied on the extendible arm of an orthopedic table, said arm being moved according to an extending and retracting movement by a telescopic tube (2, 2a) actuated by a screw (3) and nut (8) transmission, the screw (3) of which can be driven in rotation by hand by means of an operating member (44) characterized in that it comprises a force sensing member (1) interposed between the screw (3, 3a) controlling the tube (2, 2a) and a fixed point of the arm such as a casing (17) of the same device, said sensing member (1) being connected to display means (6, 11) displaying the force F recorded by the sensing member (1), in that it comprises an electric motor (4) permitting the automatic driving in rotation of the screw (3) and switching means (37, 92) for driving the screw, either manually from said driving member (44), or automatically from an electric motor (4), and in that it further comprises an electronic circuit (7) permitting, in automatic operation position, the comparison of two forces, one of which is the force F recorded by the sensing member (1) and the other is a selected reference force F_0 previously obtained in a position of manual control of the screw (3) by storing the force recorded by the sensing member (1) before switching to the automatic operation position, said electronic circuit (7) reacting when in automatic operation position, to any variation of the force F recorded by the sensing member (1) with respect to reference force F_0 , and issuing pulses which are transmitted to the electric motor (4) for driving the endless screw (3) in rotation in one direction or the other, so as to cause a variation of length L of the telescopic tube (2, 2a) toward an unbalance between forces F and F_0 in such a manner that the recorded force F is brought back to the value of reference force F_0 .

IPC 1-7

A61H 1/02

IPC 8 full level

A61H 1/02 (2006.01)

CPC (source: EP)

A61H 1/0218 (2013.01)

Cited by

EP1626320A4; US7878992B2

Designated contracting state (EPC)

CH DE FR GB IT LI SE

DOCDB simple family (publication)

EP 0194206 A1 19860910; EP 0194206 B1 19890201; DE 3661984 D1 19890309; ES 552795 A0 19870601; ES 8706025 A1 19870601; FR 2578418 A1 19860912; FR 2578418 B1 19890421

DOCDB simple family (application)

EP 86400481 A 19860307; DE 3661984 T 19860307; ES 552795 A 19860307; FR 8503460 A 19850308