

Title (en)

Wire or thread tension controlling dancer roller device.

Title (de)

Tänzerrollenvorrichtung zur Aufrechterhaltung der Zugspannung in einem Draht oder Faden.

Title (fr)

Dispositif à rouleau baladeur pour la commande de la tension d'un fil.

Publication

EP 0114365 A2 19840801 (EN)

Application

EP 83112921 A 19831221

Priority

JP 23050782 A 19821227

Abstract (en)

A dancer roller device for controlling the tension of a wire, thread or the like, wherein the tension is maintained constant at all times on the output side, independent of fluctuations in the tension on the inputs side. First and second sets of rollers are arranged parallel to one another, with the first set being fixed and the second set being mounted on a slider. The wire, thread or the like is laid over the two sets of rollers in a zig-zag manner, alternately passing around ones of the first and second rollers. A constant-tension spring urges the slider away from the first set of rollers. The moments of inertia of the first and second rollers, the masses of the rollers, the mass of the slider, the radii of the first and second rollers, and the number of passes of the wire, thread or the like between the first and second rollers are set such that the tension at the output side is always constant.

IPC 1-7

B65H 59/38

IPC 8 full level

H01B 13/00 (2006.01); **B65H 59/38** (2006.01)

CPC (source: EP KR)

B65H 59/38 (2013.01 - EP KR); **H01B 13/00** (2013.01 - KR)

Cited by

US6152396A; CN106115360A; EP0275852A1; CN103156277A; WO9819952A1

Designated contracting state (EPC)

AT CH DE FR LI SE

DOCDB simple family (publication)

EP 0114365 A2 19840801; **EP 0114365 A3 19860416**; **EP 0114365 B1 19880323**; AT E33122 T1 19880415; AU 2278783 A 19840705; AU 561857 B2 19870521; CA 1226857 A 19870915; DE 3376067 D1 19880428; FI 76767 B 19880831; FI 76767 C 19881212; FI 834768 A0 19831223; FI 834768 A 19840628; JP S59119617 A 19840710; JP S6332704 B2 19880701; KR 840006955 A 19841204; KR 890003141 B1 19890823

DOCDB simple family (application)

EP 83112921 A 19831221; AT 83112921 T 19831221; AU 2278783 A 19831222; CA 444224 A 19831223; DE 3376067 T 19831221; FI 834768 A 19831223; JP 23050782 A 19821227; KR 830006205 A 19831227