

Title (en)
ROTATING FASTENER FOR A SPORTS SHOE, PARTICULARLY A SKI BOOT

Publication
EP 0412290 A3 19920115 (DE)

Application
EP 90112757 A 19900704

Priority
DE 3926514 A 19890810

Abstract (en)
[origin: JPH03155801A] PURPOSE: To provide a lock device in which a rotary closing tool can be released to loose the lock device by a user without bending the upper half body by providing a coupling provided in the transmission connecting part between an operating shaft and a pulley in which the engagement can be released by a releasing means operable by the user in standing. CONSTITUTION: When the rotation motion by an operating handle 4 is ended, a rotary closing tool is stopped and fixed in the engaging position of a claw 24. A connecting bush 7 connected to an intermediate disc 3 so as not to be rotated transmits the rotating motion of the intermediate disc 3 to an operating shaft 13. This rotating motion is transmitted to a cable pulley 14 through a closed coupling and an epicyclic gear device. When a towing cable 17 is wound on the cable pulley 14, a closing element as a closing cloth of shoes is firmly fastened. The rewinding of the towing cable 17 from the cable pulley 14, or the release of the closing element of shoes is performed by rotating the operating handle 4 in the opposite direction. In this case, the gearing between the claw 24 and a ring gear 25 is released after the operating handle 4 passes the empty passage between two stopping surfaces 32, 33, and the operating handle 4 is further rotated, whereby the towing cable 17 can be rewound from the cable pulley 14.

IPC 1-7
A43C 11/16

IPC 8 full level
A43B 5/04 (2006.01); **A43C 11/16** (2006.01)

CPC (source: EP US)
A43C 11/16 (2013.01 - EP US); **A43C 11/165** (2013.01 - EP US); **Y10T 24/2183** (2015.01 - EP US)

Citation (search report)
• [YD] EP 0255869 A2 19880217 - WEINMANN & CO KG [DE]
• [Y] FR 2593682 A1 19870807 - DYNAFIT GMBH [AT]
• [A] EP 0132744 A1 19850213 - NORDICA SPA [IT]
• [A] DE 2341658 A1 19740307 - POLYAIR MASCHB GMBH

Cited by
EP1405576A3; EP0540251A1; CN104470394A; EP0615705A1; DE102005033386A1; DE102005033386B4; DE4326049A1; DE4326049C2; AU730671B2; CN1117535C; CN104394730A; AT517344A4; AT517344B1; US10258109B2; US9635906B2; US9717305B2; US6256798B1; WO2017000013A1; WO9413165A1; WO9851176A1; WO9833408A1; WO9805229A1; EP3636097A1

Designated contracting state (EPC)
AT CH DE ES FR GB IT LI

DOCDB simple family (publication)
EP 0412290 A2 19910213; EP 0412290 A3 19920115; EP 0412290 B1 19940622; AT E107482 T1 19940715; CA 2020407 A1 19910211; CA 2020407 C 19961015; DE 3926514 A1 19910214; DE 59006191 D1 19940728; ES 2056306 T3 19941001; JP H03155801 A 19910703; JP H0687803 B2 19941109; US 5042177 A 19910827

DOCDB simple family (application)
EP 90112757 A 19900704; AT 90112757 T 19900704; CA 2020407 A 19900704; DE 3926514 A 19890810; DE 59006191 T 19900704; ES 90112757 T 19900704; JP 18137490 A 19900709; US 54857890 A 19900705