

Title (en)
Apparatus for raising and lowering the shelves in a freeze drying chamber

Title (de)
Vorrichtung zum Heben und Senken der Regale eines Gefriertrocknungsraumes

Title (fr)
Dispositif pour relever et abaisser les étagères dans une cuve de lyophilisation

Publication
EP 1059498 A1 20001213 (FR)

Application
EP 00401541 A 20000531

Priority
FR 9907320 A 19990610

Abstract (en)
Device comprises number of articulated links comprising longitudinal upper (1) and lower (2) parts freely articulated about spindle (3) and connecting two successive shelves (13,13'). The upper end of upper part forms hinge (6) with one of shelves and lower end of lower part forms hinge (6') with shelf located immediately below. Lower part is made of two identical rectangular plates attached by spindle (3). Upper part consists of long metal plate with oblong hole (4) and skew cut (12) in its lower end. When shelves are lowering, skew cut contacts above part's rounded end and both parts start pivoting.

IPC 1-7
F26B 5/06; B65B 31/02

IPC 8 full level
B65B 31/02 (2006.01); **F26B 5/06** (2006.01)

CPC (source: EP)
B65B 31/027 (2013.01); **F26B 5/06** (2013.01)

Citation (search report)
• [A] US 3537233 A 19701103 - COSTELLO LEONARD C, et al
• [A] US 1905131 A 19330425 - CLARENCE BIRDSEYE, et al
• [A] US 2484944 A 19491018 - BICKNELL HALL
• [A] FR 2655020 A1 19910531 - USIFROID [FR]

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CN104315809A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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EP 1059498 A1 20001213; FR 2794848 A1 20001215; FR 2794848 B1 20010727

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