

Title (en)
ESCALATOR HAVING STEP TREADS THAT INTERENGAGE IN THE RETURN RUN

Title (de)
FAHRTREPPE MIT IM RÜCKLAUF INEINANDER KÄMMEND EINGREIFENDEN TRITTSTUFEN

Title (fr)
ESCALIER MÉCANIQUE AVEC DES MARCHES QUI S'ENGRÈNENT LES UNES DANS LES AUTRES EN MARCHE ARRIÈRE

Publication
EP 3532422 A1 20190904 (DE)

Application
EP 17794914 A 20171020

Priority
• EP 16196543 A 20161031
• EP 2017076803 W 20171020

Abstract (en)
[origin: WO2018077730A1] The invention relates to an escalator (1), which is constructed in a space-saving manner and can be operated with little wear. The escalator (1) has a plurality of step treads (3) and a guide rail arrangement (55) for guiding the step treads (3), in particular during a return run. Each step tread (3) has a front toothing structure (33) on a forwardly directed end face (31) and a rear toothing structure (41) on a rearwardly directed region (39) of a seating face (25), the front and the rear toothing structures (33, 41) being formed so as to be complimentary to each other, such that the front and the rear toothing structures can interengage in the forward run. The escalator is characterized in that, by means of a specific configuration of the guide rail arrangement (55), at least also in the central region (11) of the return run, running at an angle, the toothing structures (33, 41) of adjacent step treads (3) are arranged to interengage. As a result, dimensions of the escalator can be reduced, and adjacent step treads (3) guide one another as a result of the interengagement, by which means wear phenomena are reduced. The interengagement of adjacent step treads (3) in the return run can be enabled, for example, by the step treads being deliberately tilted with respect to one another with the aid of the guide rail arrangement (55) as the step treads travel, in order then to approach one another horizontally.

IPC 8 full level
B66B 23/12 (2006.01); **B66B 23/14** (2006.01)

CPC (source: EP KR RU US)
B66B 23/12 (2013.01 - EP KR RU US); **B66B 23/14** (2013.01 - EP KR RU US)

Citation (search report)
See references of WO 2018077730A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018077730 A1 20180503; AU 2017349993 A1 20190502; AU 2017349993 B2 20200910; BR 112019006672 A2 20190625; CL 2019000937 A1 20190726; CN 109890743 A 20190614; CN 109890743 B 20200512; EP 3532422 A1 20190904; EP 3532422 B1 20201209; ES 2843899 T3 20210720; KR 102399371 B1 20220517; KR 20190070929 A 20190621; MX 2019005023 A 20190620; PL 3532422 T3 20210504; RU 2019113337 A 20201030; RU 2019113337 A3 20201221; RU 2753089 C2 20210811; SG 11201902746P A 20190530; TW 201823138 A 20180701; TW 1802549 B 20230521; US 10800639 B2 20201013; US 2019263633 A1 20190829

DOCDB simple family (application)
EP 2017076803 W 20171020; AU 2017349993 A 20171020; BR 112019006672 A 20171020; CL 2019000937 A 20190408; CN 201780067164 A 20171020; EP 17794914 A 20171020; ES 17794914 T 20171020; KR 20197012252 A 20171020; MX 2019005023 A 20171020; PL 17794914 T 20171020; RU 2019113337 A 20171020; SG 11201902746P A 20171020; TW 106137405 A 20171030; US 201716346271 A 20171020