

Title (en)  
DURABLE NYLON ZIP FASTENER

Title (de)  
HALTBARER NYLONREISSVERSCHLUSS

Title (fr)  
FERMETURE À GLISSIÈRE EN NYLON DURABLE

Publication  
**EP 4085786 A4 20230118 (EN)**

Application  
**EP 20908550 A 20201230**

Priority  
• CN 201911392274 A 20191230  
• CN 2020141665 W 20201230

Abstract (en)  
[origin: EP4085786A1] A durable nylon zip fastener formed from a pull (101) and two chains (102). A chain (102) being formed from chain teeth (122) joined to a cloth tape (124) by means of sewing thread (121). The pull (101) comprising an upper wing plate (132) and a lower wing plate (133), the upper wing plate (132) and the lower wing plate (133) being connected together by means of a support core (134) therebetween, forming an accommodation cavity permitting the chains (102) to pass through. The accommodation cavity being provided with two guide inlet openings near a support core (134) end, used to guide in each of the two chains (102). Another end of the accommodation chamber being provided with a meshing exit opening, used to guide out the two meshed chains (102). The upper wing plate (132) comprising an upper plate body (1321) holding the chain teeth (122) from above and an upper flange part (1322) holding the chain teeth (122) from two sides. A position of an inner surface of the upper plate body (1321) corresponding to the sewing threads (121) of the chains (102) being provided with two accommodation grooves (111). The accommodation grooves (111) being recessed into the inner surface of the upper plate body (1321), and penetrating the upper guide plate (1321) from the guide inlet opening end to the meshing exit opening end. Providing accommodation grooves (111) in the upper plate body (1321) prevents sliding friction between the sewing thread (121) and the pull (101), extending a service life of the zip fastener.

IPC 8 full level  
**A44B 19/26** (2006.01)

CPC (source: CN EP US)  
**A44B 19/12** (2013.01 - EP); **A44B 19/14** (2013.01 - US); **A44B 19/26** (2013.01 - CN EP US)

Citation (search report)  
• [X] US 2013104348 A1 20130502 - WANG LIEN-CHOU [TW]  
• [X] US 7652579 B2 20100126 - KEYAKI KEIICHI [JP], et al  
• [XI] US 6497015 B1 20021224 - KATO TAKASHI [JP], et al  
• [XI] US 2018125176 A1 20180510 - WANG LIEN-CHOU [TW]  
• [X] US 5058246 A 19911022 - FUJISAKI YOSHINORI [JP], et al  
• See references of WO 2021136438A1

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4085786 A1 20221109; EP 4085786 A4 20230118**; CN 110916298 A 20200327; US 2023037363 A1 20230209;  
WO 2021136438 A1 20210708

DOCDB simple family (application)  
**EP 20908550 A 20201230**; CN 201911392274 A 20191230; CN 2020141665 W 20201230; US 202017790437 A 20201230