

Title (en)  
COVERING YARN, TWISTED YARN, AND FIBER STRUCTURE USING SAME

Title (de)  
UMSPINNUNGSGARN, VERDRILLTES GARN UND FASERSTRUKTUR DAMIT

Title (fr)  
FIL DE GUIPAGE, FIL RETORS ET STRUCTURE DE FIBRE L'UTILISANT

Publication  
**EP 3656901 A4 20210623 (EN)**

Application  
**EP 18832021 A 20180615**

Priority  
• JP 2017134848 A 20170710  
• JP 2018012300 A 20180129  
• JP 2018023008 W 20180615

Abstract (en)  
[origin: EP3656901A1] A covering yarn 1, 4, or 6 includes a metal filament 2 and an organic fiber yarn 3 or 5. The metal filament 2 is arranged as a core, the organic fiber yarn 3 or 5 is arranged as a sheath, and the entire covering yarn is straight. The metal filament 2 has a wire diameter of no greater than 35  $\mu\text{m}$ , and the covering yarn 1, 4, or 6 is electrically conductive. Preferably, the metal filament 2 is at least one filament selected from a tungsten filament, a molybdenum filament, and a stainless steel filament. A twisted yarn of the present invention is constituted by a core yarn, a decorative yarn, and a fixing yarn. The decorative yarn has loops or slack. At least one yarn selected from the core yarn, the decorative yarn, and the fixing yarn is the above-described covering yarn. The entire twisted yarn has real twists. Thus provided are a covering yarn and a twisted yarn that are constituted by fiber yarns that are as soft as ordinary fiber yarns for clothing, have favorable conductivity and ventilation properties, and can be washed at home, and a fiber structure obtained using the covering yarn or the twisted yarn.

IPC 8 full level  
**D02G 3/38** (2006.01); **D02G 3/04** (2006.01); **D02G 3/12** (2006.01); **D02G 3/28** (2006.01); **D02G 3/34** (2006.01); **D02G 3/44** (2006.01)

CPC (source: EP US)  
**D02G 3/04** (2013.01 - US); **D02G 3/34** (2013.01 - US); **D02G 3/36** (2013.01 - US); **D02G 3/441** (2013.01 - EP); **D02G 3/12** (2013.01 - US); **D02G 3/36** (2013.01 - EP); **D02G 3/38** (2013.01 - US); **D02G 3/441** (2013.01 - US); **D02G 3/443** (2013.01 - US); **D10B 2101/20** (2013.01 - EP); **D10B 2201/02** (2013.01 - US); **D10B 2331/04** (2013.01 - US)

Citation (search report)  
• [I] WO 2006102560 A1 20060928 - SUPREME ELASTIC CORP [US], et al  
• [IY] JP H05195366 A 19930803 - MITSUBISHI RAYON CO  
• [I] WO 0198572 A2 20011227 - DU PONT [US]  
• [Y] JP 2009068138 A 20090402 - HAYASHI YARN TWISTING CO LTD  
• See references of WO 2019012916A1

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

DOCDB simple family (publication)  
**EP 3656901 A1 20200527**; **EP 3656901 A4 20210623**; CN 110892103 A 20200317; TW 201920788 A 20190601; US 2020199790 A1 20200625; WO 2019012916 A1 20190117

DOCDB simple family (application)  
**EP 18832021 A 20180615**; CN 201880045840 A 20180615; JP 2018023008 W 20180615; TW 107122134 A 20180627; US 201816629263 A 20180615