

Title (en)
EXTENSION FOR PENCILS WITH WEARING LEADS

Title (de)
VERLÄNGERUNG FÜR STIFTE MIT VERSCHLEIBENDEN MINEN

Title (fr)
EXTENSION POUR CRAYONS AVEC MINES SUJETTES À L'USURE

Publication
EP 3956150 A1 20220223 (DE)

Application
EP 20721414 A 20200415

Priority
• DE 102019002839 A 20190418
• EP 2020025168 W 20200415

Abstract (en)
[origin: WO2020211979A1] The invention relates to an extension for pencils with wearing leads, formed from a thin-walled hollow profile (1) of appropriate length, the inner cross section of which is adapted to the shape of a conventional pencil cross section, having, at the end of the extension where the tapered end of the pencil is situated, one or more slots (2) of appropriate length in the longitudinal direction in the lateral surface and a minor, linear reduction (3) in cross section approximately over the length of the one or more slots in the direction of the end, longitudinally directed elevations (4) in the form of triangular, square and/or semi-circular prisms, which are provided in an appropriate number, arrangement and length depending on the pencil cross section and are directed inwardly, the height of the elevations (4), which may increase slightly in the direction of insertion of the pencil, being selected such that they dig into the pencil slightly when introduced, and the height of said elevations (4) being reduced linearly over an expedient length (4a) to zero at the end of the extension where the pencil is introduced, and inwardly curved or protruding retaining springs (5) being arranged in the inner surface of the extension (1) in an appropriate number and arrangement, which retaining springs are connected to the rest of the lateral surface on the side facing the upper extension end and are separated therefrom in the rest of the region.

IPC 8 full level
B43K 19/14 (2006.01); **B43K 23/00** (2006.01); **B43K 29/06** (2006.01)

CPC (source: EP US)
B43K 19/14 (2013.01 - EP US); **B43K 23/00** (2013.01 - EP); **B43K 23/10** (2013.01 - EP US); **B43K 25/02** (2013.01 - US)

Citation (search report)
See references of WO 2020211979A1

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 2020211979 A1 20201022; DE 102019002839 A1 20201022; DE 102019002839 B4 20211014; EP 3956150 A1 20220223; US 11760123 B2 20230919; US 2022203751 A1 20220630

DOCDB simple family (application)
EP 2020025168 W 20200415; DE 102019002839 A 20190418; EP 20721414 A 20200415; US 202017601488 A 20200415