

Title (en)
Autommatic mechanical pencil

Title (de)
Automatischer Füllminenstift

Title (fr)
Porte-mine automatique

Publication
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Application
EP 99123938 A 19991203

Priority
JP 244999 A 19990108

Abstract (en)
In an automatic mechanical pencil, breakage of a lead can be prevented and a lead protruded from a slider (4) can be housed in the slider. At the frond portion of a mouthpiece, the slider is disposed movably in an axial direction. Within the mouthpiece (2), a chuck and a chuck ring (8) are provided so that an advancing movement of the lead is permitted, but a retracting movement of the lead is prevented. Between the slider and the chuck, a lead supply spring (19) is provided. The chuck ring is disposed movably in an axial direction in the mouthpiece and pressed in an axially forward direction by a writing pressure spring (24). At the rear portion of the chuck, a chuck stopper (23) is provided with a distance (22) from the rear end of the chuck. After the chuck retracts in a predetermined distance, it is stopped by a chuck stopper. Even if the retracting movement of the chuck is stopped, the slider and the lead can be housed in the mouthpiece since the chuck ring can retract by being pressed by the slider. <IMAGE>

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IPC 8 full level
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CPC (source: EP)
B43K 21/033 (2013.01)

Citation (applicant)
US 5236271 A 19930817 - SAKAOKA GOUJI [JP]

Citation (search report)
• [A] EP 0276362 A1 19880803 - PILOT PRECISION [JP]
• [A] US 4171170 A 19791016 - KAGEYAMA HIDEHEI [JP], et al
• [A] EP 0268398 A1 19880525 - KOTOBUKI & CO LTD [JP]

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