

Title (en)  
Writing instrument.

Title (de)  
Schreibgerät.

Title (fr)  
Instrument à écrire.

Publication  
**EP 0252694 A1 19880113 (EN)**

Application  
**EP 87305912 A 19870703**

Priority  
US 88295786 A 19860707

Abstract (en)  
A ball point pen writing instrument is disclosed which provides greater retractability of a replaceable ball point ink cartridge (14) by a novel arrangement of cam surfaces (76a,78a,82a,84a) on a ratchet or cam body (28a) of the ink cartridge. The cam surfaces on the ink cartridge ratchet differ substantially in shape and duration from prior existing cam surfaces having multiple 90 DEG and 45 DEG duration orientations, respectively. The improved ratchet cam surfaces allow the ink cartridge to be retracted in the ball point pen housing approximately one additional millimeter, thereby eliminating the possibility of ink from the ball point wicking onto cloth adjacent to the ball point end of a writing instrument when that writing instrument is positioned in a clothing pocket of a user.

IPC 1-7  
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IPC 8 full level  
**B43K 24/08** (2006.01)

CPC (source: EP KR)  
**B43K 24/06** (2013.01 - KR); **B43K 24/084** (2013.01 - EP)

Citation (search report)  
• [A] US 3273541 A 19660920 - THURMAN RICHARD L, et al  
• [A] FR 1119233 A 19560618 - PARKER PEN CO

Cited by  
AT353U1; US7144176B2; CN102494921A; EP0518198A1; US5417504A; CN103395316A; CN113146122A; CN105664287A; CN115287161A; WO9222433A1

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**EP 87305912 A 19870703**; AU 7464987 A 19870624; BR 8703408 A 19870706; CN 87104631 A 19870706; DK 347787 A 19870706; JP 16959287 A 19870707; KR 870007215 A 19870706; NO 872813 A 19870706; ZA 874503 A 19870622