

Title (en)  
DEVICE FOR DRAWING OFF A THREAD

Publication  
**EP 0230974 B1 19910731 (DE)**

Application  
**EP 87100760 A 19870121**

Priority  
• DE 3602765 A 19860130  
• DE 3611740 A 19860408  
• DE 3613040 A 19860417  
• DE 3614864 A 19860502

Abstract (en)  
[origin: US4784344A] Advancing yarn is directed onto a larger diameter portion of a tapered yarn winding roll having a smaller diameter free end. The yarn is formed into windings that extend about the roll and that are continuously displaced along its length toward and, in most embodiments also from, its free end. The displacement of the yarn windings may be assisted by air currents and/or the force of gravity. The tension of the advancing yarn may be controlled by varying the axial location of its initial engagement with the roll. The apparatus may consist either of a single yarn withdrawal unit or of multiple interconnected units.

IPC 1-7  
**B65H 54/86**; **D01D 7/00**; **D06B 17/00**

IPC 8 full level  
**B65H 54/86** (2006.01); **D01D 7/00** (2006.01); **D04H 3/03** (2012.01); **D06B 17/00** (2006.01)

CPC (source: EP US)  
**B65H 54/86** (2013.01 - EP US); **D01D 7/00** (2013.01 - EP US); **D04H 3/03** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by  
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Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 0230974 A2 19870805**; **EP 0230974 A3 19880810**; **EP 0230974 B1 19910731**; DE 3771736 D1 19910905; US 4784344 A 19881115

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