

Title (en)  
Flyer device and flyer drive method

Title (de)  
Flyerflügel und Verfahren zu deren Antrieb

Title (fr)  
Ailette et méthode pour l'entraîner

Publication  
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Application  
**EP 00102716 A 20000209**

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• JP 9758299 A 19990405

Abstract (en)  
The present invention directly couples a rotative-drive source to a flyer so as to positively drive the flyer in synchronism with a speed at which a yarn is unwound. This construction prevents variations in tension regardless of an unwinding position, that is, whether the yarn is unwound from an upper or a lower side of a package and regardless of the winding diameter of the package, thereby restraining yarn breakage. The present invention provides a flyer device comprising a flyer for use in unwinding a yarn 1 from a package P or twisting the yarn after unwinding it from the package, wherein the device has flyer rotative-drive means FRM rotating in an interlocking manner as the yarn is unwound, for positively rotatively driving the flyer. It also provides a flyer device wherein flyer rotative-drive means comprises a flyer rotative-drive source 43 and a one-way clutch 42 combined with a rotating shaft of the flyer rotative-drive source. <IMAGE>

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IPC 8 full level  
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Citation (search report)  
• [XA] US 4687151 A 19870818 - MEMMINGER GUSTAV [DE], et al  
• [A] DE 9411246 U1 19951116 - SAURER ALLMA GMBH [DE]  
• [A] DE 1924003 A1 19701112 - PALITEX PROJECT CO GMBH  
• [A] GB 1108456 A 19680403 - PALITEX PROJECT CO GMBH

Cited by  
CN101857992A; EP2028300A3; CN101864625A; NL1024504C2; AU2004280204B2; EP1457447A3; EP2028301A3; EP1847637A3; CN106987937A; FR2887237A1; EP1550749A3; FR3004578A1; CN105358748A; EP2366818A1; US10544523B2; WO2005035844A1; WO2006136747A3; WO2014167221A1

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