

Title (en)  
FILM STRETCHING AND WIND-WRAPPING APPARATUS.

Title (de)  
VORRICHTUNG ZUM UMWICKELN MIT VORDEHNUNG DES VERWENDETEN FOLIENBANDES.

Title (fr)  
APPAREIL D'EMBALLAGE POUR ENROULEMENT D'UN FILM TENDU AU PREALABLE.

Publication  
**EP 0399046 A4 19900920 (EN)**

Application  
**EP 89904244 A 19890406**

Priority  
JP 8572788 A 19880406

Abstract (en)  
[origin: WO8909727A1] A rotary frame (4) provided with a vertical support post (9) at the front end portion thereof is supported on a vertical fixed shaft (2) so that the rotary frame (4) can be turned therearound, and a film stretching roller unit (g) used to stretch a plastic film which is to be wound in a stretched state around a cargo (C) is provided on the support post (9). A stretched film (e) is wound around the cargo (C) by turning the rotary frame (4) around the axis of the vertical fixed shaft (2). Since the cargo (C) is not turned during the winding of the film therearound, it does not fall in the absence of the centrifugal force.

IPC 1-7  
**B65B 11/02**

IPC 8 full level  
**B65B 11/02** (2006.01)

CPC (source: EP)  
**B65B 11/025** (2013.01)

Citation (search report)

- [XP] EP 0279871 A1 19880831 - CYKLOP AG [DE]
- [X] FR 2499020 A1 19820806 - SAURO RINO SNC PIERI [IT]
- [A] EP 0180517 A1 19860507 - NEWTEC INT [FR]
- [A] CA 1069039 A 19800101 - SHULMAN MICHAEL H
- See references of WO 8909727A1

Cited by  
US2010313525A1; EP0960556A3; US11814197B2; FR2850632A1; EP3871986A1; IT202000004228A1; EP4029792A1; EP4029793A1

Designated contracting state (EPC)  
DE FR GB IT NL SE

DOCDB simple family (publication)  
**WO 8909727 A1 19891019**; AU 3369389 A 19891103; EP 0399046 A1 19901128; EP 0399046 A4 19900920

DOCDB simple family (application)  
**JP 8900370 W 19890406**; AU 3369389 A 19890406; EP 89904244 A 19890406