

Title (en)

Tissue paper cutting mechanism having upper knife with variable spiral curve angle and upper knife structure therefor

Title (de)

Papierschneidemechanismus für Gewebe mit Oberschneide mit variablem Spiralkurvenwinkel sowie Oberschneidenstruktur dafür

Title (fr)

Mécanisme de découpe de papier en tissu disposant d'un couteau supérieur avec angle de courbe spirale variable et sa structure de couteau supérieur

Publication

**EP 2095917 A1 20090902 (EN)**

Application

**EP 08003555 A 20080227**

Priority

EP 08003555 A 20080227

Abstract (en)

A tissue paper cutting mechanism having upper knife (5, 5a) with variable spiral curve angle includes a base (1), a bed knife roller (3, 3a) rotatably mounted on the base (1) and provided on a circumferential surface with a plurality of straight bed knives (32) radially spaced at predetermined intervals, a knife carrier (4, 4a) mounted on the base (1) near the bed knife roller (3, 3a) at an axis skew angle relative to the bed knife roller (3, 3a), and an upper knife (5, 5a) associated with a structural surface of the knife carrier (4, 4a) to extend along a longitudinal axis direction of the knife carrier (4, 4a) from an end (40a) to another opposite end (40b) thereof in a spiral direction, such that an angle contained between an axis of the upper knife (5, 5a) and a tangential line to the circumferential surface of the bed knife roller (3, 3a) non-linearly varies with every change of the cutting position on the upper knife (5, 5a).

IPC 8 full level

**B26D 1/62** (2006.01); **B26D 1/00** (2006.01); **B26D 1/38** (2006.01); **B26D 7/26** (2006.01)

CPC (source: EP)

**B26D 1/626** (2013.01); **B26D 7/2628** (2013.01); **B26D 2007/2685** (2013.01); **B26D 2007/2692** (2013.01)

Citation (search report)

- [A] US 3190163 A 19650622 - BRADLEY JOHN J
- [X] DE 3718776 C1 19880825 - STRECKER VALMET
- [X] EP 0122996 A1 19841031 - MERRILL DAVID MARTIN
- [X] DE 2117966 A1 19711223

Cited by

CN103381611A; CN110142980A; CN118752541A; WO2018206341A1

Designated contracting state (EPC)

DE EE GB IT PL SK

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**EP 2095917 A1 20090902**; **EP 2095917 B1 20120620**; PL 2095917 T3 20121130

DOCDB simple family (application)

**EP 08003555 A 20080227**; PL 08003555 T 20080227