

Title (en)

Method and apparatus for manufacturing paper cushioning members

Title (de)

Verfahren und Vorrichtung zum Herstellen von Füllmaterial aus Papier

Title (fr)

Procédé et dispositif pour la fabrication de matière de garnissage à partir de papier

Publication

EP 0779148 A1 19970618 (EN)

Application

EP 96109805 A 19960619

Priority

JP 34762395 A 19951215

Abstract (en)

Disclosed are a method and apparatus for manufacturing paper cushioning members, which ensure continuous mass-production of paper balls, made by crumpling a sheet or sheets of work paper, and permit the use of the paper balls as cushions or packings for transporting objects. According to this method, a sheet or sheets of work paper are inserted between a pair of intermittent cutting roller members (1, 2) to provide multiple rows of thin bands with link portions (71-7n), processed paper is put in cutaway portions (6) each formed in a part of projections (4) of the roller members (1, 2) to form creases, claws of waste-collecting members (17), provided on a discharge side, scrape the processed paper off the cutaway portions and feeding the processed paper to a wave-forming guide (16) while forming crumples, the processed paper is forcibly put through the wave-forming guide (16) to make fine crumples on each unit of thin bands, and the processed paper is discharged while the thin bands are entirely made wavy. The apparatus comprises a pair of elongated roller members (1, 2) having circumferential recesses (3) and projections (4) each of a given width formed thereon and therearound; cutting blades (1', 2') formed at peripheral edges of surfaces (R) of the circumferential projections (4) of the roller members (1, 2); cutaway portions (6) each formed in a part of a circumferential surface of each of the projections (4) along the entire width (W) of that projection (4), work paper (P) being put into the cutaway portions (6), the recesses (3) and projections (4) of one of the roller members (1, 2) being engaged with the projections (4) and recesses (3) of the other roller member respectively; an upper pressing member (161) and a lower receiving member (162) arranged on a discharge side of the roller members (1, 2); a wave-forming guide (16) with a passage (5) having a height (h) about half of a circumferential length of the roller members (1, 2); waste-collecting members (17) having claws and recesses, arranged on a roller-member side peripheral portion of the wave-forming guide (16) which is to be engaged with the recesses (3) and projections (4) of the roller members (1, 2); a weight (18) provided at an outlet portion of the upper pressing member (161); a casing (20) for covering the roller members (1, 2) and receiving outer-positioned shafts (21', 22') of the roller members (1, 2); and projections (4) with no cutaway portions (6) formed on lengthwise outer periphery portions of the roller members (1, 2) so as to be able to cut edge portions of work paper to be processed at a same time as the work paper is processed, with an opening formed in a shaft-receiving portion of the casing (20). <IMAGE>

IPC 1-7

B31D 5/00; **B31F 5/02**

IPC 8 full level

B31D 5/00 (2006.01); **B31F 5/02** (2006.01)

CPC (source: EP KR)

B31D 5/00 (2013.01 - KR); **B31D 5/006** (2013.01 - EP); **B31D 5/0065** (2013.01 - EP); **B31F 5/022** (2013.01 - EP)

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Designated contracting state (EPC)

AT DE FR GB IT

DOCDB simple family (publication)

EP 0779148 A1 19970618; KR 100371525 B1 20030329; KR 970033796 A 19970722; TW 321085 U 19971121

DOCDB simple family (application)

EP 96109805 A 19960619; KR 19960038288 A 19960904; TW 85211345 U 19960724