

Title (en)

Apparatus to remove pieces cut from a bent material or similar.

Title (de)

Vorrichtung zum Entfernen von ausbrechteilen aus einem Werkstoffbogen od.dgl.

Title (fr)

Dispositif pour enlever des pièces tranchées d'un matériel plié ou similaires.

Publication

EP 0446702 B1 19941228 (DE)

Application

EP 91102861 A 19910227

Priority

DE 9003017 U 19900312

Abstract (en)

[origin: US5181640A] Apparatus for removing break-out portions and in particular waste pieces from a sheet of material which contains blanks or the like and which rests on a break-out surface in such a way that the break-out portion extends over an aperture in the break-out surface and is pressed downwardly through the aperture under the pressure of at least one break-out member, in particular a break-out pin. Associated with the break-out member beneath the break-out portion is a support which is guided in the direction of movement of the break-out member. The support is a surface which is springy and/or movable within the aperture at least partially into a position at a spacing relative to the break-out surface and which in its rest position engages beneath the waste piece in the sheet of material and which is adapted to be transferred into an inclined position relative to the sheet of material upon movement of the waste piece by the break-out member, in particular upon downward movement of the waste piece.

IPC 1-7

B26D 7/18

IPC 8 full level

B26D 7/18 (2006.01); **B26F 1/02** (2006.01)

CPC (source: EP KR US)

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Cited by

WO9951405A1; EP1679163A1; FR2745220A1; EP1312449A3; DE202013105912U1; WO2005028168A1; WO9730829A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

US 5181640 A 19930126; AT E116186 T1 19950115; AU 7266691 A 19910912; CA 2037981 A1 19910913; DE 59104008 D1 19950209; EP 0446702 A2 19910918; EP 0446702 A3 19920325; EP 0446702 B1 19941228; JP H0596498 A 19930420; KR 910016476 A 19911105

DOCDB simple family (application)

US 66744891 A 19910311; AT 91102861 T 19910227; AU 7266691 A 19910306; CA 2037981 A 19910311; DE 59104008 T 19910227; EP 91102861 A 19910227; JP 7225291 A 19910312; KR 910003923 A 19910312