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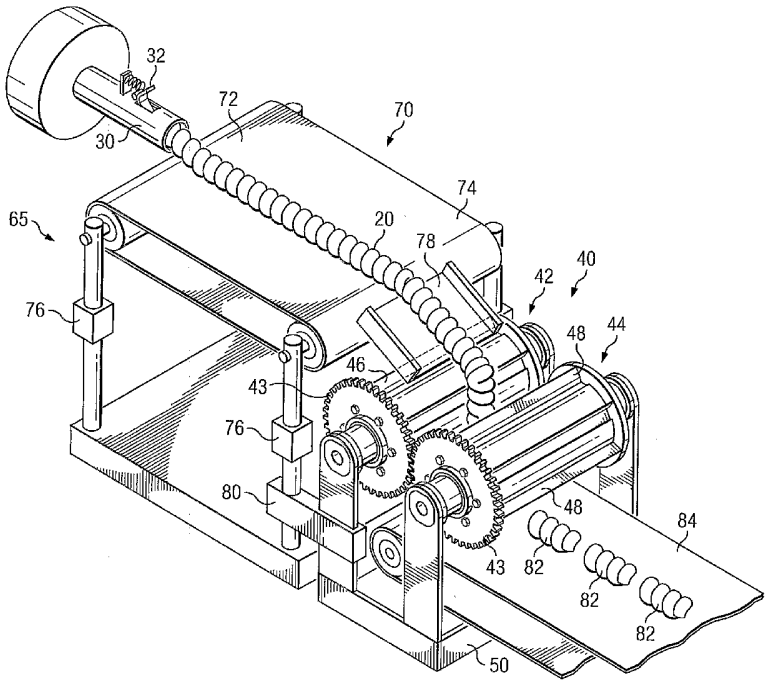
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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

[Continued on next page]

(54) **Title:** METHOD AND APPARATUS FOR CUTTING A CURLY PUFF EXTRUDATE



(57) **Abstract:** A method and apparatus for cutting a puff extrudate utilizing a first bladed roll and a second bladed roll. The first and second bladed rolls rotate in opposite directions, and work together to cut the extrudate into similarly sized pieces. The blades are positioned on the rolls offset to each other so as to cut the extrudate with a shearing action.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
— *of inventorship (Rule 4.17(iv))*

Published:
— *with international search report*

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27 April 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/18766

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : B23D 25/02
US CL : 83/336, 113, 303, 343
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 83/336, 113, 303, 343, 949, 950

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2,195,653 A (MACFARREN) 2 April 1940 (02.04.1940), entire document.	1, 2, 5-7, 9, and 10
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Y		2-4 and 8
X	US 6,070,510 A (POLONI) 6 June 2000 (06.06.2000), entire document.	1, 2, 5-7, 9, and 11-13
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Y		2-4 and 8
Y	US 4,131,047 A (SCHRIBER ET AL) 26 December 1978 (26.12.1978), entire document.	8

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
07 November 2005 (07.11.2005)

Date of mailing of the international search report
13 JAN 2006

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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/18766

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-13

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

ıpplication contains the following inventions or groups of inventions which are not so linked as to form a single general inventive pt under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

› I, claim(s) 1-23, drawn to a cutting assembly with two rolls including blades offset from one another.
› II, claim(s) 24-28, drawn to a production system with a conveyor positioned to feed and receive extrudate.
› III, claim(s) 29-42, drawn to a method of cutting with a blade gap to aid in cutting.

ıpplication contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of tion because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

ler for more than one species to be examined, the appropriate additional examination fees must be paid. The species are as follows:

es A, FIG 5-9
es B, FIG 10
es C, FIG 11
es D, FIG 12
es E, FIG 13

nventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I s is the claimed offset blades and this feature is not present in Groups II or III. The special technical feature the Group II claims is aimed conveyor positioned to feed and receive the extrudate and this feature is not present in Groups I or III. The special technical e of the Group III claims is the claimed blade gap used to hold the extrudate immediately before cutting and this feature is not nt in Groups I or II.

pecies listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the es lack the same or corresponding special technical features for the following reasons: Species A discloses rolls with continuous s; Species B discloses rolls with discontinuous blades; Species C discloses wheels with inwardly curved peripheral surfaces on a ontal plane; and Species D discloses wheels with inwardly curved peripheral surfaces on a vertical plane.