11 Publication number:

**0 282 950** A3

(12)

## **EUROPEAN PATENT APPLICATION**

21 Application number: 88104020.8

(51) Int. Cl.4: **B02C** 19/00

22 Date of filing: 14.03.88

3 Priority: 18.03.87 IT 1244287

43 Date of publication of application: 21.09.88 Bulletin 88/38

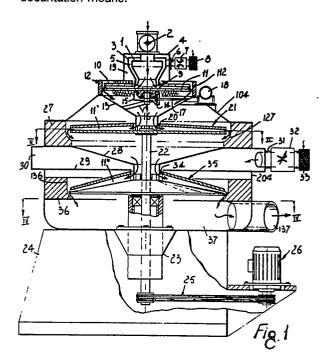
Designated Contracting States:
AT BE CH DE ES FR GB GR LI LU NL SE

Date of deferred publication of the search report: 19.07.89 Bulletin 89/29

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- 64 Micronizing apparatus.
- The flow of the product with a suitable particle size, which is to be processed, and of a conveying fluid such as ambient air, sucked by a machine connected to the outlet of the apparatus according to the invention, are fed with the possibility of a selective adjustment (2-7) to the centre (9) of a distributing disk (10) with vertical axis, which while being rotated evenly distributes the flow on the rough surface of a ring (12) where a first comminution of the product takes place. From this stage, the flow of product and air is conveyed to the centre of a second distributing disk (21) with vertical axis and of a greater diameter, which is rotated at a higher speed than the former and evenly distributes the said flow on a comminution ring (27) made of a hard material, and having a smooth surface suitably tapering in downward direction, such that some of the product will temporarily stay on the said ring and will be broken owing to the dynamic impact thereon of the product particles being progressively delivered from the near distributing disk. The air and product N flow from this second comminution stage is conoveyed together with a fresh, rate-adjustable ambient air flow, to the centre of a third rotary distributing disk with vertical axis, similar to the preceding disk, but preferably having a downwardly diverging conical shape. From this distributing disk, the air and

product flow is evenly distributed on a near impact ring (36) just like the ring in the second stage, where a further comminution of the product is acheived. The flow of air and micronized product issues from the apparatus through a volute (37) and reaches decantation means.





## **EUROPEAN SEARCH REPORT**

EP 88 10 4020

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	DOCUMENTS CONS		EVANT	
Category	Citation of document with i of relevant pa	ndication, where appropriate, ssages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-1 772 150 (KN * Page 4, lines 7-6 lines 8-19 *	OWLES)	1	B 02 C 19/00
A			7	
Υ	US-A-3 065 919 (LE * Column 2, lines 2 lines 39-70 *	ROY BURKETT) 0-61; column 3,	1	
A			2,4,8	
Y	US-A-3 995 784 (DE QUIERDO)		1	
	* Column 3, lines 4 1-18 *	-29; column 4, lin	es	
A	FR-A-2 538 718 (CR * Page 5, lines 3-1	EUSOT-LOIRE) 3 *	13	
				TECHNICAL FIELDS SEARCHED (Int. Cl.4)
				B 02 C
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	44			
	The present search report has be Place of search			
		Date of completion of the 03-05-1989		Examiner OONCK J.C.M.J.
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		NTS T: theory E: earlier after t  other D: docum L: docum	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding	