(11) **EP 1 886 587 A1**

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

13.02.2008 Bulletin 2008/07

(51) Int Cl.:

A24B 1/04 (2006.01) B07B 1/15 (2006.01) A24B 3/18 (2006.01)

(21) Application number: 06386043.1

(22) Date of filing: 22.12.2006

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated Extension States:

AL BA HR MK YU

(30) Priority: 08.08.2006 GR 2006100467

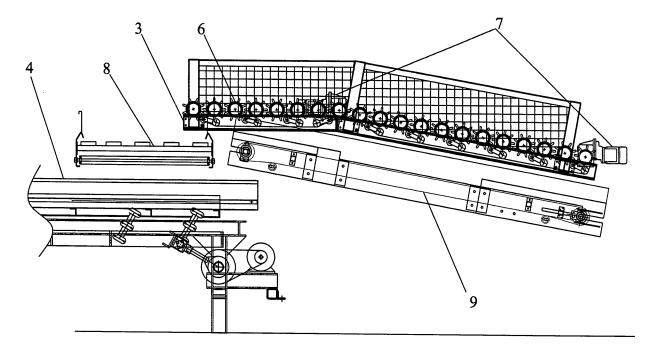
(71) Applicant: V.I.T. S.A. Thessaloniki (GR)

(72) Inventor: Tsikis, Stefanos Thessaloniki (GR)

(54) Tobacco leave cleaning rollers from scrap and foreign materials

(57) Tobacco leave cleaning rollers are consisted of a row of rollers which have pins around their perimeter and get rotated by an electric motor (7). When the entire machinery is supplied with tobacco leaves, clean tobacco

leaves get separated and leaded on a conveyor belt (8) while scrap and foreign materials pass from the gap between the rollers (6) and propelled by another conveyor belt (9) into the vibrational sieve for an accurate cleaning.



DRAWING 2

EP 1 886 587 A1

10

15

20

25

30

35

40

45

50

55

Description

[0001] This invention refers to tobacco leave cleaning rollers from scrap and foreign materials.

1

[0002] The tobacco leave cleaning rollers from scrap and foreign materials are widely used. By using these systems the cleaning of a big amount of tobacco leaves from scrap and foreign materials is achieved in a sort time.

[0003] The present invention refers to tobacco leave cleaning rollers from scrap and foreign materials and includes a range of rollers placed on a metal base and moving rotatively by an electric motor via belt gearing. The rollers for tobacco leave cleaning from scrap and foreign materials are part of tobacco leave cleaning machinery from scrap and foreign materials.

[0004] Except of the advantages, tobacco leave cleaning from scrap and foreign materials appear to have some disadvantages also. For example, the tobacco leave cleaning from the rollers is not succeeded well enough and as a result the following devices get overloaded and the cleaning does not fulfill the desirable standards.

[0005] The purpose of this invention is to create a machinery of tobacco leave cleaning rollers, as it was mentioned above, that can be able to clean a big quantity of tobacco leaves from foreign materials is such a degree that the following devices do not get overloaded with big quantity of clean tobacco leaves.

According to the invention this can be succeeded with tobacco leave cleaning rollers that have pins around their perimeter and this has as a result shaking of the tobacco leaves and better cleaning from foreign materials and scrap while big and clear tobacco leaves do not enter the gap between rollers but get pushed for the continuation of the procedure.

[0006] According to this invention, a row of tobacco leave cleaning rollers from scrap and foreign materials appears to have many advantages. By using pins around the perimeter of the rollers, a better cleaning of tobacco leaves can be achieved and as a result the vibrational sieves do not get overloaded with clean tobacco leaves that usually exist after the roller row. So it is not necessary to install large vibrational sieves. Also, according to this invention, it is possible to verge on the desirable level of clean leave cleaning from scrap and foreign materials because of the gap between the rollers having as a fact the displacement of the longitudinal roller axis.

[0007] The invention is mentioned below by using an example and referring to the attached drawings in which:

Drawing 1 presents a side view of the production row and also the tobacco leave cleaning rollers from scrap and foreign materials.

Drawing 2 presents a side view of the tobacco leave cleaning rollers from scrap and foreign materials. Drawing 1 presents the main parts of a tobacco leave cleaning row from scrap and foreign materials which are: conveyor belt for the entrance of the tobacco

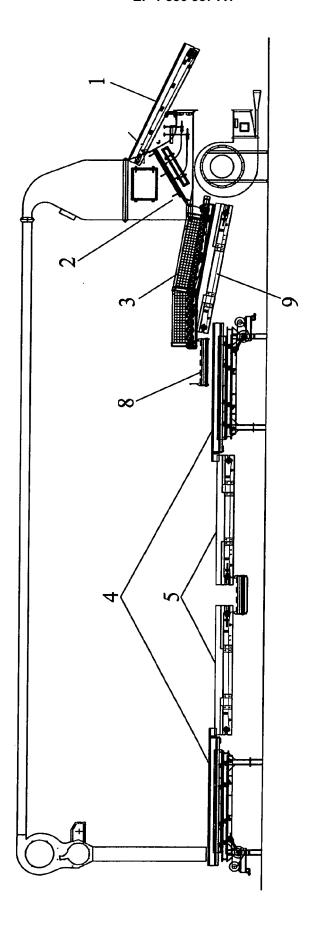
leaves (1), separator for the light particles (2), rollers of tobacco leave cleaning rollers from scrap and foreign materials (3), vibrational sieves (4), and picking belts (5).

Drawing 2 presents a side view of the rollers (3) and the cleaning process while the tobacco leaves pass above the roller row with pins (6) that get moved by electric motors (7) via belt gearing and the big clean tobacco leaves are propelled in a conveyor belt (8). In the same time the scrap and foreign materials that pass through the gap between the rollers (6) are propelled by another conveyor belt (9) into the vibration sieve (4) for an accurate cleaning. The size of the gap between the rollers can be altered according to the size of the tobacco leaves and to the desirable separation level.

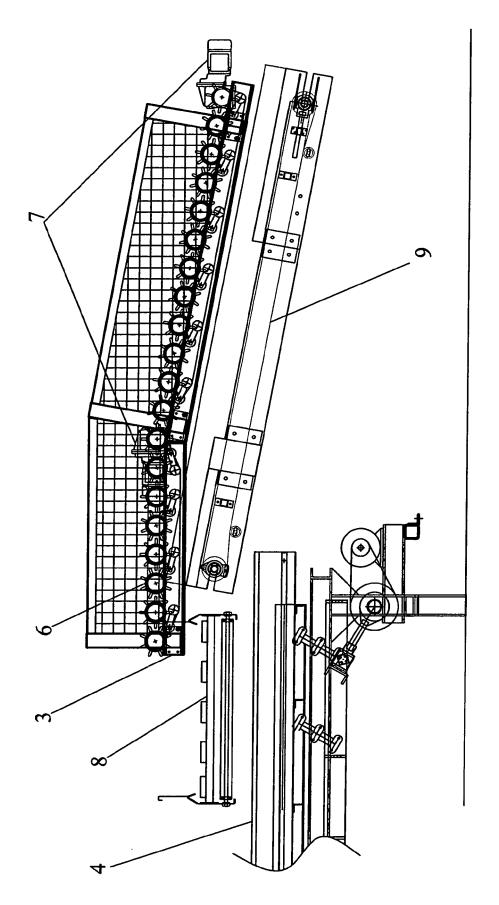
Claims

1. Tobacco leave separation rollers from scrap and foreign materials (3) are consisted of a row of rollers (6), electric motor (7) and belt gearing and are marked from the fact that the rollers (6) have pins around their perimeter whose presence causes shaking of the passing tobacco leaves. Thereupon, tobacco leaves get cleaned from scrap and foreign materials with the best possible way.

2



DRAWING 1





Application Number EP 06 38 6043

	DOCUMENTS CONSIDE	RED TO BE RELEVANT		
ategory	Citation of document with in of relevant passa		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
(NI WERKE KOERBER & CO er 2004 (2004-09-29) - paragraph [0018];	1	INV. A24B1/04 A24B3/18 B07B1/15
	EP 0 727 154 A (KOEI KOEHL MASCHB GMBH [21 August 1996 (199 * the whole documen	5-08-21)	1	
	US 4 809 716 A (CAU 7 March 1989 (1989- * the whole documen		1	
	20 November 1996 (19	LIP MORRIS PROD [US]) 996-11-20) - line 26; claim 23;	1	
	US 2 942 607 A (SKI 28 June 1960 (1960- * column 2, line 26 figures *		1	TECHNICAL FIELDS SEARCHED (IPC) A24B B07B
	The present search report has b	<u> </u>		
	Place of search Munich	Date of completion of the search 31 October 200		Examiner RZANO MONTEROSSO
X : parti Y : parti docu A : tech O : non-	ATEGORY OF CITED DOCUMENTS oularly relevant if taken alone cularly relevant if combined with anoth ment of the same category nological background written disclosure mediate document	T : theory or prin E : earlier patent after the filing er D : document cit L : document cit	ciple underlying the i document, but publi date ed in the application ed for other reasons	nvention shed on, or

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 06 38 6043

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

31-10-2007

	Patent document ed in search report		Publication date		Patent family member(s)		Publication date
EP	1462014	A	29-09-2004	AT CN JP PL	311772 1531877 2004337153 366353	A A	15-12-200 29-09-200 02-12-200 04-10-200
EP	0727154	Α	21-08-1996	DE	19505259	A1	22-08-199
US	4809716	Α	07-03-1989	NONE			
EP	0743019	Α	20-11-1996	GR	3032945	T3	31-07-200
US	2942607	Α	28-06-1960	NONE			

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82