



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A22C 21/00, 21/06	A3	(11) International Publication Number: WO 99/41990 (43) International Publication Date: 26 August 1999 (26.08.99)
(21) International Application Number: PCT/US99/03471 (22) International Filing Date: 17 February 1999 (17.02.99) (30) Priority Data: 60/075,372 20 February 1998 (20.02.98) US 09/115,845 15 July 1998 (15.07.98) US (71) Applicant (for all designated States except US): STORK GAMCO INCORPORATED [US/US]; Airport Parkway, Gainesville, GA 30503 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): VOLK, Max [US/US]; 4487 Cain Circle, Tucker, GA 30084 (US). STRAWN, Raymond [US/US]; 4653 Countryside Drive, Flowery Branch, GA 30542 (US). VAN DEN NIEUWELAAR, Adrianus, J. [NL/NL]; Den Hoek 33, NL-5421 XG Gemert (NL). GAZAWAY, Bradley [US/US]; 3369 Springdale Forest Circle, Gainesville, GA 30506 (US). PEETERS, Hendrikus [NL/NL]; Vink 3, NL-5831 ME Boxmeer (NL). (74) Agents: PRATT, John, S. et al.; Kilpatrick Stockton LLP, Suite 2800, 1100 Peachtree Street, Atlanta, GA 30309-4530 (US).		(81) Designated States: BR, CA, JP, MX, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 27 April 2000 (27.04.00)
(54) Title: METHODS AND APPARATUS FOR PERFORMING PROCESSING OPERATIONS ON A SLAUGHTERED ANIMAL OR PART THEREOF (57) Abstract Apparatus and methods for performing multiple automated poultry processing operations upon a slaughtered animal or a part thereof via a single machine is described. The machine contains at least two rotary processors (103, 105) in a single frame (100). A covering (113) surrounds the processors. A venting processor cuts out and removes the vent of a slaughtered animal and in the process removes unwanted fecal or other material from the exterior and the interior of the carcass. The processors integrated into the single machine are coupled by a conveyor line (107) following a preferably generally S-shaped route that carries the carcasses amongst the processors, preferably positioning the carcasses at the optimum registration point for the operation performed by the particular processor.		

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/03471

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 A22C21/00 A22C21/06

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)

IPC 6 A22C

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 practical, 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	EP 0 381 093 A (HAZENBROEK JACOBUS E) 8 August 1990 (1990-08-08) the whole document	1,6,9, 16,18,19
A	US 3 986 231 A (HARBEN JR GROVER S) 19 October 1976 (1976-10-19) column 2, line 54 -column 3, line 15 column 4, paragraph 1	1,5,7, 10,18,19
X	US 5 569 072 A (TIELEMAN RULDOLF J ET AL) 29 October 1996 (1996-10-29) column 3, line 26 -column 5, line 17	21-24, 26,29, 31-34, 36,40,41
A	US 3 958 303 A (SCHEIER DONALD JOSEPH ET AL) 25 May 1976 (1976-05-25) column 6, line 20 - line 38; figures 9-11	30,38-40
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search

22 February 2000

Date of mailing of the international search report

06.03.00

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International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 99 46998 A (TIELEMAN EDWARD JOHANNES ;TIELEMAN FOOD EQUIPMENT B V (NL)) 23 September 1999 (1999-09-23) page 3, line 20 -page 5, line 6; claims 1,2	21-24, 26-31, 33,34, 36,38-42
E	WO 99 16321 A (NIEUWELAAR ADRIANUS J VAN DEN ;STORK PMT (NL); DRABELS BASTIAAN W) 8 April 1999 (1999-04-08) cited in the application page 23, paragraph 2; figure 9D	21,28, 31,38
X	EP 0 722 666 A (BAADER NORTH AMERICA CORP) 24 July 1996 (1996-07-24)	43,48, 49,52, 53,56, 57,62
A	column 6, paragraph 2 -column 7, paragraph 2; claims 3,10	44-47,55
A	EP 0 450 730 A (STORK PMT) 9 October 1991 (1991-10-09) the whole document	43,45, 48, 52-55, 60,62
A	EP 0 024 171 A (RYAN JAMES WINSTONE) 25 February 1981 (1981-02-25)	
A	FR 2 659 529 A (SOULAGNET YVES) 20 September 1991 (1991-09-20)	
A	WO 96 16553 A (LINDHOLST & CO AS ;BACH OLE (DK)) 6 June 1996 (1996-06-06) cited in the application	
A	US 3 417 424 A (CHAMBERLAIN HAROLD F) 24 December 1968 (1968-12-24)	
A	WO 98 06272 A (TIELEMAN FOOD EQUIPMENT B V ;WINKELMOLEN ANTOINE JEAN HERMA (NL)) 19 February 1998 (1998-02-19)	
A	DE 85 24 126 U (MARKERT) 31 October 1985 (1985-10-31)	
P,A	EP 0 839 455 A (SYSTEMATE BV) 6 May 1998 (1998-05-06)	
A	DE 86 25 835 U (MARKERT) 18 December 1986 (1986-12-18)	
A	NL 7 505 057 A (MEYN PIETER) 2 November 1976 (1976-11-02)	
	-/-	

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Inter nal Application No

PCT/US 99/03471

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 820 697 A (STORK GAMCO INC) 28 January 1998 (1998-01-28) cited in the application _____	
A	US 2 943 346 A (JENSEN) 5 July 1960 (1960-07-05) _____	
A	GB 2 147 190 A (JOHNSON SIMON INC) 9 May 1985 (1985-05-09) _____	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/03471

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional 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 an additional fee, this Authority did not invite payment of any additional fee.
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.:
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Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/03471

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-20

Method and device for performing multiple operations upon a slaughtered animal

2. Claims: 21,22,23,24-28,29-30,31,32,33,34-40,41-42

Method and device for positioning/holding a carcass of a slaughtered animal in a processing operation.

3. Claims: 43-51,52,53-61,62

Method and device for removing the vent from a carcass.

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/US 99/03471

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0381093	A	08-08-1990	US 4896399 A CA 2008386 A,C US 4939813 A	30-01-1990 31-07-1990 10-07-1990
US 3986231	A	19-10-1976	US 3806988 A US RE28666 E	30-04-1974 30-12-1975
US 5569072	A	29-10-1996	BR 9704617 A EP 0814665 A WO 9725873 A	09-06-1998 07-01-1998 24-07-1997
US 3958303	A	25-05-1976	AU 8560075 A BR 7508011 A CA 1029160 A CA 1029513 A CA 1028457 A JP 890373 C JP 51085985 A JP 52016944 B ZA 7506381 A	21-04-1977 24-08-1976 11-04-1978 18-04-1978 28-03-1978 17-12-1977 28-07-1976 12-05-1977 29-09-1976
WO 9946998	A	23-09-1999	NL 1008634 C AU 2963599 A	21-09-1999 11-10-1999
WO 9916321	A	08-04-1999	NONE	
EP 0722666	A	24-07-1996	US 5580304 A BR 9603944 A WO 9622026 A	03-12-1996 14-10-1997 25-07-1996
EP 0450730	A	09-10-1991	NL 9000782 A DK 450730 T US 5133686 A	01-11-1991 03-05-1993 28-07-1992
EP 0024171	A	25-02-1981	AT 5290 T AU 534830 B AU 6106480 A GB 2056255 A	15-12-1983 16-02-1984 12-02-1981 18-03-1981
FR 2659529	A	20-09-1991	NONE	
WO 9616553	A	06-06-1996	AU 3924495 A	19-06-1996
US 3417424	A	24-12-1968	NONE	
WO 9806272	A	19-02-1998	NL 1003808 C	20-02-1998
DE 8524126	U	31-10-1985	US 4723340 A	09-02-1988
EP 0839455	A	06-05-1998	BR 9704464 A CA 2219564 A US 5766063 A	29-12-1998 30-04-1998 16-06-1998
DE 8625835	U	18-12-1986	NONE	
NL 7505057	A	02-11-1976	DK 190676 A GB 1484241 A US 4023237 A	30-10-1976 01-09-1977 17-05-1977

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/US 99/03471

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0820697	A	28-01-1998	US 5741176 A	21-04-1998
			JP 10084860 A	07-04-1998
US 2943346	A	05-07-1960	NONE	
GB 2147190	A	09-05-1985	US 4564977 A	21-01-1986
			CA 1213110 A	28-10-1986
			DK 422584 A	16-03-1985
			JP 60098934 A	01-06-1985
			NL 8402822 A	01-04-1985