

19



**Octrooi Centrum
Nederland**

11

2013154

12 B1 OCTROOI

21

Aanvraagnummer: **2013154**

51

Int. Cl.:
A22C 21/06 (2006.01)

22

Aanvraag ingediend: **09/07/2014**

43

Aanvraag gepubliceerd:
-

73

Octrooihouder(s):
**MEYN Food Processing Technology B.V. te
Oostzaan.**

47

Octrooi verleend:
21/09/2016

72

Uitvinder(s):
**Rick Sebastiaan van Stralen te Oostzaan.
Aloysius Christianus Maria van Steijn te
Oostzaan.**

45

Octrooischrift uitgegeven:
30/11/2016

74

Gemachtigde:
mr. ir. J. van Breda c.s. te Amsterdam.

54

Apparatus for carrying out an operation on slaughtered poultry.

57

An apparatus for carrying out an operation on slaughtered poultry, comprising suspension devices for suspending the poultry by the legs, a first drum which at its periphery is provided with a first curve formed by a first groove which is being traced by a first projection that connects to a first processing organ so as to arrange that movement of the first processing organ along the periphery of the first drum causes said first processing organ to be placed in an operational position with respect to the poultry being suspended by the legs. Further there are second processing means that cooperate with a second drum provided with a second curve formed by a second groove which is being traced by a second projection connected with the second processing means so as to arrange that by its movement along the periphery of the second drum said second processing means is positioned in its operational position with reference to the poultry. The apparatus further has the feature that the first drum and the second drum have an adjustable distance with respect to each other.

Apparatus for carrying out an operation on slaughtered poultry

5 The invention generally relates to an apparatus for carrying out an operation on slaughtered poultry, employing suspension devices for suspending the poultry by the legs while the operation is carried out. Such an apparatus is commonly used within the poultry processing industry.

10 An example of such an apparatus, which particularly relates to the cleaning of the internal neck skin of slaughtered poultry is known from EP-B-1 247 453. This known apparatus comprises suspension devices for suspending the poultry by the legs, and a first drum which at its periphery is provided with a first curve formed by a first groove. The said first groove is being traced by a first projection that connects to a rotatable bore organ so as to arrange that movement of the bore organ along the periphery of the first drum causes said bore organ to be inserted from the top into the poultry being suspended by the legs for carrying out the cleaning operation.

20 The known apparatus further has presser means comprising a presser chock, which during the cleaning operation rests against the neck skin of the poultry at the breast side and pushes the neck skin of the poultry towards the bore organ. The presser chock cooperates with a second drum provided with a second groove which is being traced by a second projection connected with the pressure chock so as to arrange that said pressure chock is adjustable in height due to its movement along the periphery of the second drum. By arranging that the presser chock is adjustable in height, the pressure chock can be moved upwards at the beginning of the cleaning operation until it reaches a position wherein the pressure chock rests against the neck skin at the breast side of the poultry.

35 The preamble of the main claim therefore reflects in general terms the system that is known from EP-B-1 247 453, notably comprising suspension devices for suspending the poultry by the legs, a first drum which at its periphery is provided with a first curve formed by a first groove which is being traced by a first projection that connects to a first processing organ so as to arrange that movement of the first pro-

cessing organ along the periphery of the first drum causes said first processing organ to be placed in an operational position with respect to the poultry being suspended by the legs, and second processing means that cooperates with a second drum provided with a second curve formed by a second groove which is being traced by a second projection connected with the second processing means so as to arrange that by its movement along the periphery of the second drum said second processing means is positioned in its operational position with reference to the poultry.

Although this arrangement allows for a considerable tolerance with regard to any possible differences in size of the poultry to be processed, practice learns that poultry sizes may differ more than can be accommodated with the arrangement known from the known apparatus.

It is therefore an object of the invention to accommodate for notable size differences of poultry beyond what can be handled with the said known apparatus.

It is another object of the invention to generally provide suitable adjustment means usable in any type of apparatus for carrying out an operation on slaughtered poultry.

To promote that one or more of the objectives of the invention are met, the apparatus of the invention is embodied with one or more of the appended claims.

In a first aspect of the invention the first drum and the second drum have an adjustable distance with respect to each other. The adjustable distance of the first drum that is operably connected with the first processing organ, in relation to the second drum that is operably connected with the second processing means is an effective solution to accommodate the apparatus of the invention to an exceptionally large range of poultry sizes.

Preferably the first drum and the second drum are also rotationally adjustable with respect to each other. In this manner a perfect tuning in timing can be accomplished as to when the first processing organ must process the poultry depending on the size of the poultry. Otherwise inaccuracies may occur or remain due to the fact that the movements of the first processing organ and the second processing means are in-

dependently determined by the said trajectories of the grooves in the said first and second drums. The relative position of said trajectories with respect to each other therefore preferably has to be attuned to the size of the poultry, particularly with notable size differences of the poultry. In this connection it is advantageous for realizing a high level of accuracy that the adjustable distance and/or the rotational position of the first drum and the second drum is/are continuously adjustable within a predefined range.

A suitable embodiment of the apparatus of the invention has the second drum mounted on a mechanism comprising at least two parts, wherein said two parts of the mechanism are adjustable regarding their mutual distance and regarding their rotational position with respect to each other.

Advantageously the said two parts of the mechanism are connected with each other through actuators, preferably linear actuators. Preferably the actuators are hydraulic cylinders. Such hydraulic cylinders are simple and cost effective means to arrange for the mutual displacement of the two parts of the mechanism.

It is further preferred that the second drum is mounted on a first axle of a first part of said mechanism which is rotatably mounted on a second part of said mechanism, which first axle cooperates with a rotationally fixed second axle which is further fixed against longitudinal displacement, and wherein the first axle and the second axle have a joint longitudinal body axis, wherein said first axle and said second axle have cooperating splines and projections to arrange that with variation of the distance of said two parts of the mechanism a longitudinal displacement of the first axle with respect to the second axle occurs causing a simultaneous rotation of the first axle with respect to the second axle.

In one embodiment of the invention the apparatus is applied for carrying out a cleaning operation on the internal neck skin of slaughtered poultry by removing the windpipe, gullet, glandular tissue or remainders thereof, wherein the first processing organ is a rotatable bore organ so as to arrange that movement of the bore organ along the periphery of the first drum causes said bore organ to be inserted from the

top into the poultry being suspended by the legs for carrying out the cleaning operation, and the second processing means comprise a presser chock, which during the cleaning operation rests against the neck skin of the poultry at the breast side and pushes the neck skin of the poultry towards the bore organ, wherein the presser chock cooperates with the second drum so as to arrange that said pressure chock is adjustable in height by its movement along the periphery of the second drum.

The presser chock effectively assists the scraping action of the bore organ, so that its efficacy is improved. The presser chock pushing the poultry's neck skin on the breast side towards the bore organ assists in particular the effective removal of the windpipe, which, due to the nature of the tissue of which the windpipe consists, is usually difficult to remove by means of the bore organ.

Although the measure with which the neck skin is pressed against the bore organ is as such quite critical, since on the one hand the scraping action of the bore organ needs to be supported, while on the other hand said scraping action must not result in the neck skin being torn, use of the apparatus of the invention improves the scraping action and ensures that poultry of any size is stripped reliably of windpipe, gullet and other tissue that is to be removed.

The invention will now be explained in more detail with reference to the drawing of two non-limiting preferred exemplary embodiments.

The Figures 1 to 4 in the drawing show a number of successive settings of a first embodiment of an apparatus according to the invention, which is arranged for carrying out a cleaning operation applied to the internal neck skin of slaughtered poultry.

Figure 5 shows in an isometric side view the two drums of the apparatus of the invention shown in figures 1 - 4.

Figure 6A and 6B show in a detail side view the drum operably connected with the pressure chock at a first and at a second altitude.

Figure 7 shows an isometric view of the mechanism which is preferably used for mounting the drum that is operably connected with the pressure chock.

Figure 8A and 8B shows another embodiment of an apparatus according to the invention which is usable for processing poultry to open poultry carcasses at the vent side.

Identical reference numbers used in the Figures refer to similar parts.

The apparatus 1 shown in the figures 1 - 4 is intended for carrying out a cleaning operation applied to the internal neck skin of slaughtered poultry 2 comprises a first drum 4 and a central axis 3 pertaining to said first drum 4. Along the first drum 4 movable bore organs 5 are provided. One such bore organ 5 is shown in the Figures 1 - 4. To facilitate their activation, said bore organs are in their longitudinal direction movably mounted on rods, which are fastened to an upper plate 11 and a lower plate 12, rotatable about the axis 3. The upper plate 11 may, for example, be driven by a chain such that the bore organs 5 are moved along the drum 4. The periphery of the first drum 4 is provided with a curve formed by a first groove 13, which is being traced by a first projection 14 that is part of the bore organ 5. In this way the movement of the bore organ 5 along the first drum 4 also results in the bore organ 5 making a movement in its longitudinal direction determined by the curve of the first groove 13, while at the same time a further mechanism causes the bore organ 5 to rotate during said longitudinal movement.

As further shown in the Figures 1 - 4, the poultry 2 is suspended by the legs from suspension devices 6, for example, hooks.

While the poultry 2 is suspended by the legs 7 from the hooks, moving in correspondence with the movement of the bore organs 5 along the first drum 4, the bore organ 5 is activated in the manner explained above as soon as the same moves from the top into the poultry 2 (see Figure 1 and Figure 2, respectively), after which it moves such as to exit the poultry 2 via a neck end 8.

The apparatus is further provided with presser means 9 in the form of a presser chock, which is placed from below,

against the neck skin of the poultry 2 at the breast side. In this position, which is illustrated in Figure 2, the presser chock 9 pushes the neck skin of the poultry towards the bore organ 5 such as to enable the latter to effectively scrape the inside of the neck skin of the poultry 2.

With the presser chock 9 supporting the neck skin from the outside, the internal neck skin can be effectively cleaned when the neck opening 8 is very large, thereby also allowing difficult tissue to be removed. This relates in particular to the windpipe.

The Figures 2 and 3 show that a small space remains between the bore organ 5 and the presser chock 9, between which the neck skin of the poultry 2 can be accommodated so that the cleaning operation to be carried out with the bore organ 5 will not damage the neck skin.

The figures show that the bore organ 5 is disposed at a slight slant. The presser chock 9 has a work surface 10 that corresponds with the slanting disposition of the bore organ 5. In an equally possible completely perpendicular disposition of the bore organ 5, the work surface 10 of the presser chock 9 should be disposed correspondingly perpendicular.

The Figures 2 and 3 show the situation following the start of the cleaning operation, when the bore organ 5 is moving downwards and the presser chock 9 is moved upwards from the initial position shown in Figure 1, until it assumes a position wherein the presser chock 9 rests against the neck skin at the breast side of the poultry, supporting the same. This is caused by the arrangement that the presser chock 9 cooperates with a second drum 15 provided with a second groove 16 which is being traced by a second projection 17 connected with the pressure chock 9. By this arrangement said pressure chock 9 is automatically adjusted in height when it moves past the periphery of the second drum 15.

Figure 4 shows that the bore organ 5 has completed the cleaning operation after which it will return to the starting position as shown in Figure 1. In that situation the presser chock 9 is also returned to the initial position of Figure 1, so that the poultry 2 is then again suspended from the hooks 6 by the legs 7 only.

Figure 5 provides an isometric side view of the apparatus 1 of the invention shown in figures 1 - 4, providing a clearer view at the first drum 4 which at its periphery is provided with a first curve formed by a first groove 13. This groove 13 is traced by a first projection (not visible) that connects to a rotatable bore organ 5 in order to arrange that when the bore organ 5 moves along the periphery of the first drum 4, said bore organ 5 is moved downwards and inserted from the top into the poultry to be processed. Likewise after the poultry is processed, the bore organ 5 moves upwards again.

Figure 5 also provides a clear view at the presser chock 9 that cooperates with a second drum 15 that is provided with a second curve formed by a second groove 16. This second groove 16 is being traced by a second projection 17 connected with the pressure chock 9 so as to arrange that said pressure chock 9 is adjustable in height due to its movement along the periphery of the second drum 15.

According to the invention the first drum 4 and the second drum 15 have an adjustable distance with respect to each other as is illustrated in figure 6A and figure 6B. Comparing figure 6A with figure 6B reveals that the second drum 15 that is operably connected with the pressure chock 9 assumes a lower position in figure 6A than it does in figure 6B. With the first drum 4 being at a fixed altitude with reference to the fixed world, this brings about that the distance between the first drum 4 that connects to the rotatable bore organ 5, and the second drum 15 that connects to the pressure chock 9 is variable. Preferably at the same time the first drum 4 and the second drum 15 are rotationally adjustable with respect to each other.

Both figure 6A and 6B show a preferred embodiment in which the second drum 15 is mounted on a mechanism 18 comprising at least two parts 19, 20, wherein said two parts of the mechanism 18 are adjustable regarding their mutual distance and regarding their rotational position with respect to each other. This is shown clearer in figure 7.

Figure 7 shows that the two parts 19, 20 of the mechanism 18 are connected with each other through (preferably linear) actuators 23, particularly hydraulic cylinders. The

mechanism 18 comprises a first axle 19' of a first part 19 of said mechanism 18 on which the second drum 15 is to be mounted. The said first part 19 is rotatably mounted on a second part 20 of said mechanism 18. The first axle 19' of the first part 19 further cooperates with a rotationally fixed second axle 21 which is also fixed against longitudinal displacement. Figure 7 further shows that the first axle 19' and the second axle 21 have a joint longitudinal body axis and cooperating splines 22 and (nonvisible) projections to arrange that with variation of the distance of said two parts 19, 20 of the mechanism 18, a longitudinal displacement of the first axle 19' with respect to the second axle 21 occurs causing a simultaneous rotation of the first axle 19' with respect to the second axle 21. Due to the fact that the second drum 15 is mounted on the first axle 19', varying the distance between the first part 19 and the second part 20 of the mechanism 18 results in a simultaneous variation of the altitude of the second drum 15 and of its rotational position with reference to the fixed axle 21. In this way a very effective and robust apparatus is provided that can be accommodated to processing of poultry in a large range of sizes.

Figures 8A and 8B show another embodiment of the apparatus according to the invention, which can be used for opening the body cavity of a slaughtered bird. In such an apparatus, which is of the type disclosed in EP-A-0 761 100, the object is to open the body cavity of the poultry starting from the cloaca while preventing that the intestines are cut. The problem is however that not all poultry has the same size. During operation of the apparatus rod 26 cooperates with cutting device 24. The cutting device 24 cuts the abdominal skin once rod 26 has been pushed inside the cloaca to its foremost position. The apparatus of figure 8A/8B is construed to arrange that depending on the size of the poultry the positioning unit 25 is adjusted from its lowest position shown in fig 8A to its highest position shown in fig.8B. This is realized by arranging that the two parts 19, 20 of the mechanism 18 as shown in figure 7 are applied together with the first drum 4 and the second drum 15 shown in figures 8A and 8B. The first groove in the drum 4 and the first projection that cooperates

with the cutting device 24 (the first processing organ) is not shown, yet a clear view is provided to the second groove 16 in the second drum 15 and the second projection 17 that cooperates with the second groove 16 and connects to the positioning unit 25 (the second processing means). In this way the timing of the positioning unit 25 reaching its top position is automatically secured, so that an optimal positioning of the poultry is obtained to ensure a precise cut of the skin while cutting the intestines is prevented.

Although the invention has been discussed in the foregoing with reference to exemplary embodiments of the apparatus of the invention, the invention is not restricted to these particular embodiments which can be varied in many ways without departing from the gist of the invention. It is for instance possible to provide a fixed altitude for the second drum, and make the first drum that is operably connected with the rotatable bore organ variable in height and rotational position with reference to the second drum. The discussed exemplary embodiments shall therefore not be used to construe the appended claims strictly in accordance with these embodiments. On the contrary, the exemplary embodiments are merely intended to explain the wording of the appended claims without intent to limit the claims to their particular features. The scope of protection of the invention shall therefore be construed in accordance with the appended claims only, wherein a possible ambiguity in the wording of the claims shall be resolved using the exemplary embodiments.

CLAIMS

1. An apparatus (1) for carrying out an operation on slaughtered poultry, comprising suspension devices (6) for suspending the poultry by the legs (7), a first drum (4) which at its periphery is provided with a first curve formed by a first groove (13) which is being traced by a first projection (14) that connects to a first processing organ (5) so as to arrange that movement of the first processing organ (5) along the periphery of the first drum (4) causes said first processing organ (5) to be placed in an operational position with respect to the poultry (2) being suspended by the legs, and second processing means (9) that cooperates with a second drum (15) provided with a second curve formed by a second groove (16) which is being traced by a second projection (17) connected with the second processing means (9) so as to arrange that by its movement along the periphery of the second drum (15) said second processing means (9) is positioned in its operational position with reference to the poultry (2), **characterized in that** the first drum (4) and the second drum (15) have an adjustable distance with respect to each other.

2. An apparatus (1) according to claim 1, **characterized in that** the first drum (4) and the second drum (15) are rotationally adjustable with respect to each other.

3. An apparatus (1) according to claim 1 or 2, **characterized in that** the second drum (15) is mounted on a mechanism (18) comprising at least two parts (19, 20), wherein said two parts (19, 20) of the mechanism (18) are adjustable regarding their mutual distance and regarding their rotational position with respect to each other.

4. An apparatus according to any one of claims 1 - 3, **characterized in that** the adjustable distance and/or the rotational position of the first drum (4) and the second drum (15) is/are continuously adjustable within a predefined range.

5. An apparatus (1) according to claim 3 or 4, **characterized in that** the said two parts (19, 20) of the mechanism (18) are connected with each other through actuators.

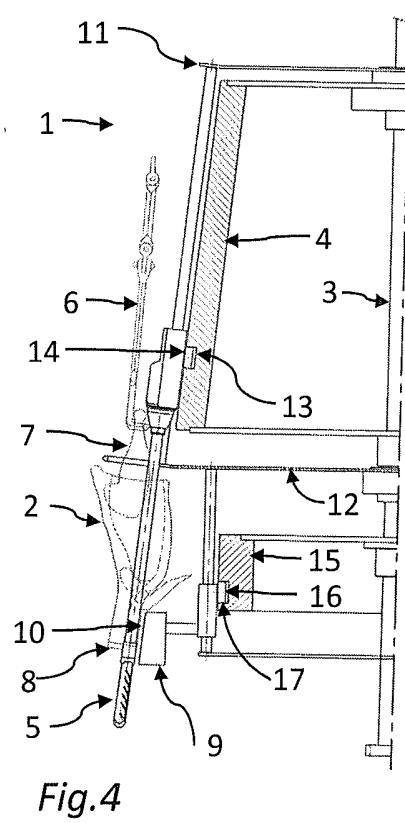
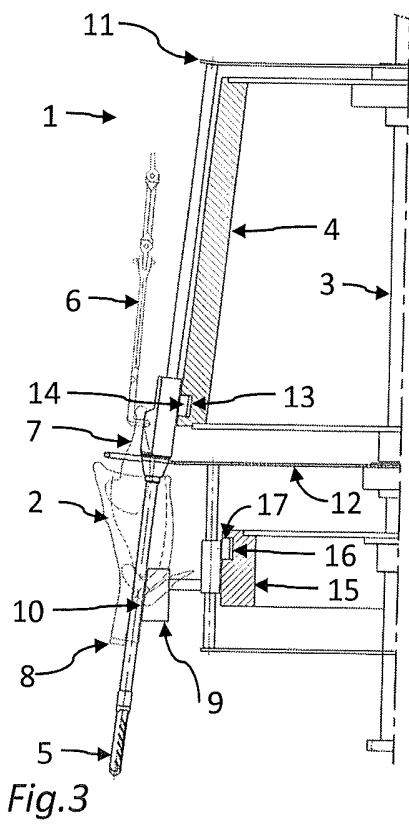
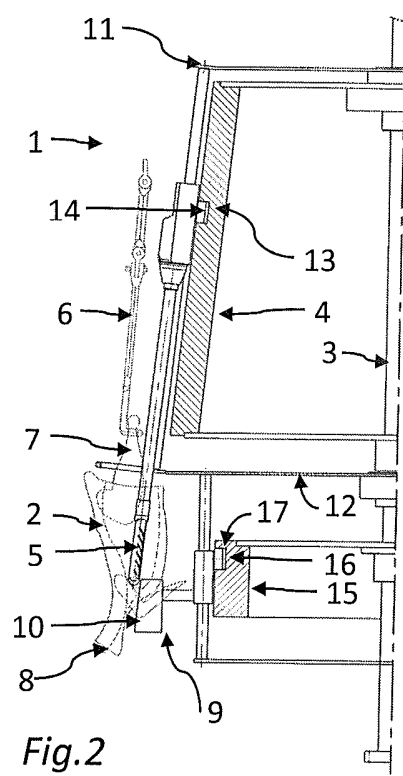
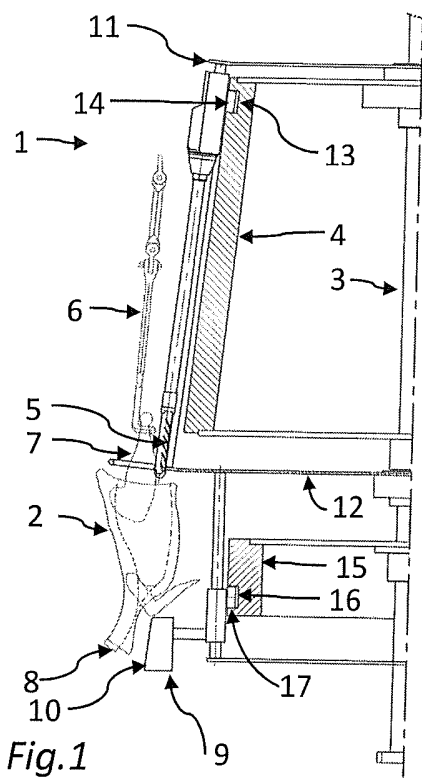
6. An apparatus (1) according to claim 3, 4 or 5, **characterized in that** the said two parts (19, 20) of the mech-

anism (18) are connected with each other through linear actuators.

7. An apparatus (1) according to claim 5 or 6, **characterized in that** the actuators are hydraulic cylinders (23).

5 8. An apparatus (1) according to any one of claims 3 - 7, **characterized in that** the second drum (15) is mounted on a first axle (19') of a first part (19) of said mechanism (18) which is rotatably mounted on a second part (20) of said mechanism (18), which first axle (19') cooperates with a rotationally fixed second axle (21) which is further fixed against
10 longitudinal displacement, wherein the first axle (19') and the second axle (21) have a joint longitudinal body axis and wherein said first axle (19') and said second axle (21) have cooperating splines (22) and projections to arrange that with
15 variation of the distance of said two parts (19, 20) of the mechanism (18) a longitudinal displacement of the first axle (19') with respect to the second axle (21) occurs causing a simultaneous rotation of the first axle (19') with respect to the second axle (21).

20 9. An apparatus (1) according to any one of the previous claims 1 - 8, **characterized in that** it is arranged for carrying out a cleaning operation on the internal neck skin of slaughtered poultry by removing the windpipe, gullet, glandular tissue or remainders thereof, wherein the first processing
25 organ is a rotatable bore organ (5) so as to arrange that movement of the bore organ (5) along the periphery of the first drum (4) causes said bore organ (5) to be inserted from the top into the poultry (2) being suspended by the legs for carrying out the cleaning operation, and the second processing
30 means comprise a presser chock (9), which during the cleaning operation rests against the neck skin of the poultry (2) at the breast side and pushes the neck skin of the poultry (2) towards the bore organ (5), wherein the presser chock (9) cooperates with the second drum (15) so as to arrange that said
35 pressure chock (9) is adjustable in height by its movement along the periphery of the second drum (15).



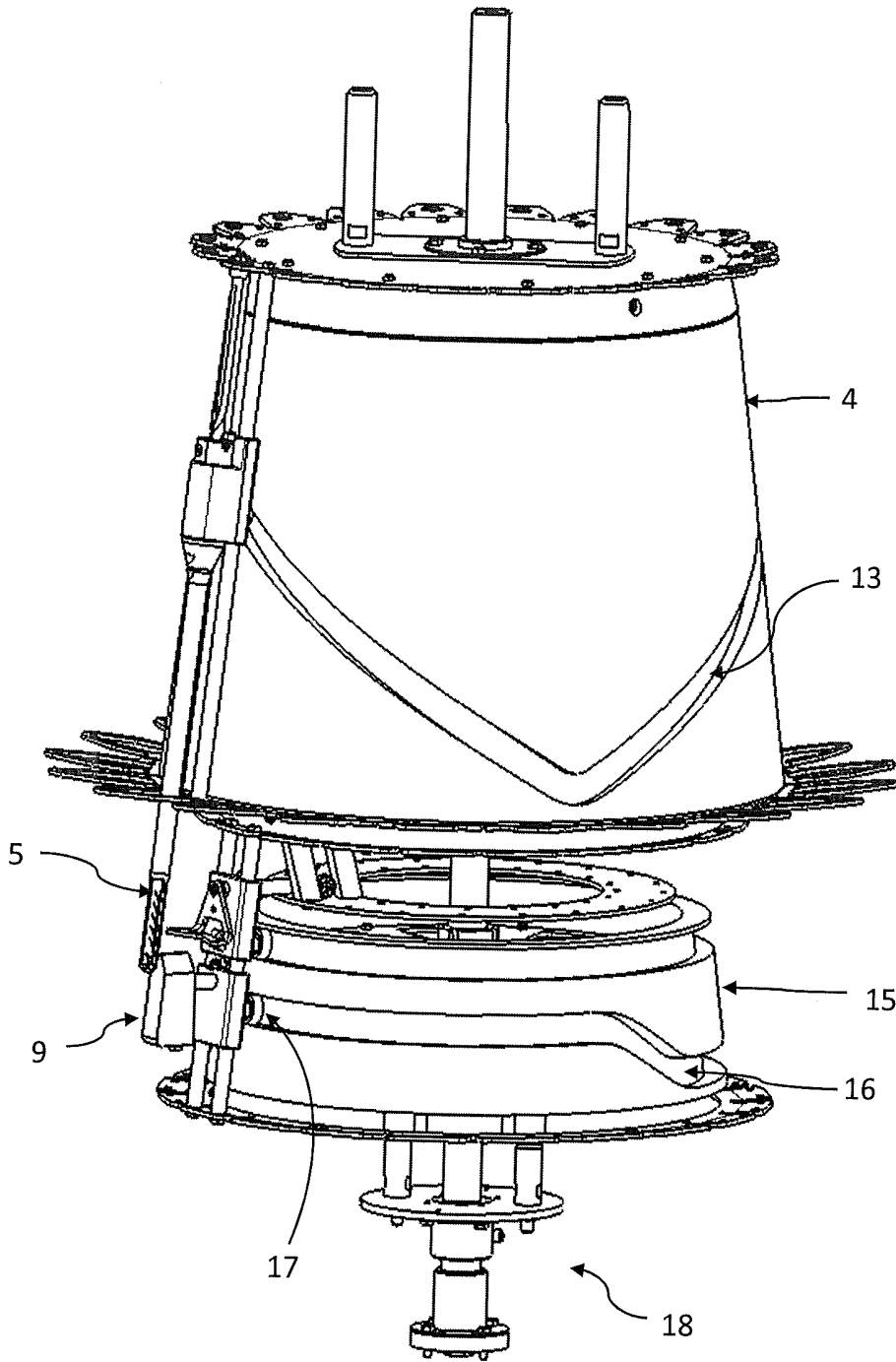


Fig.5

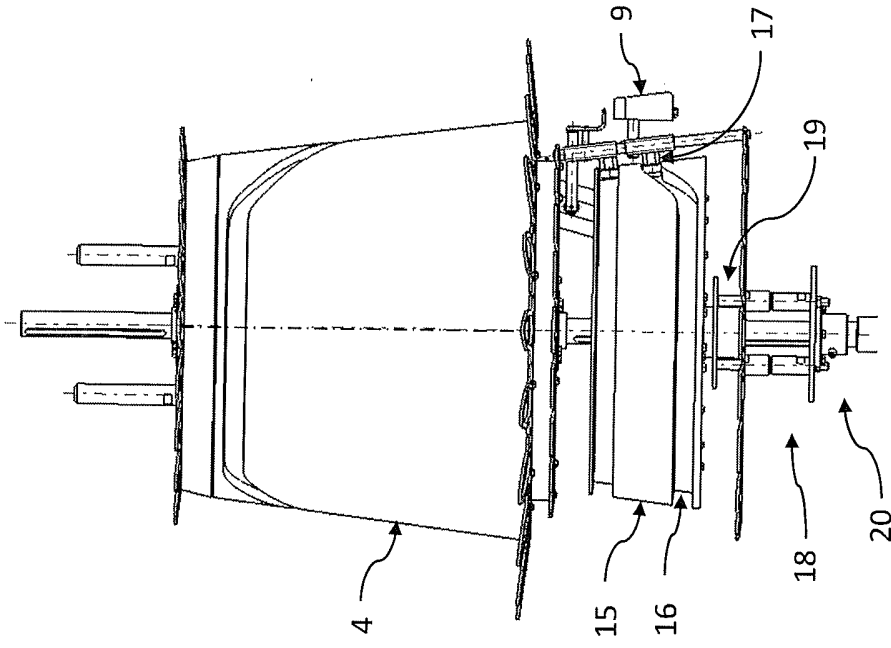


Fig.6B

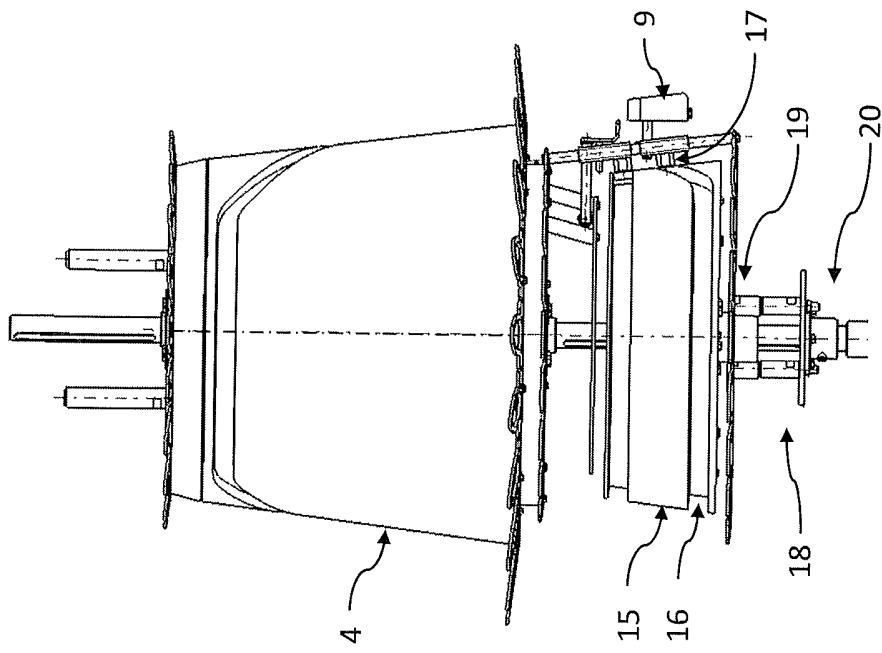


Fig.6A

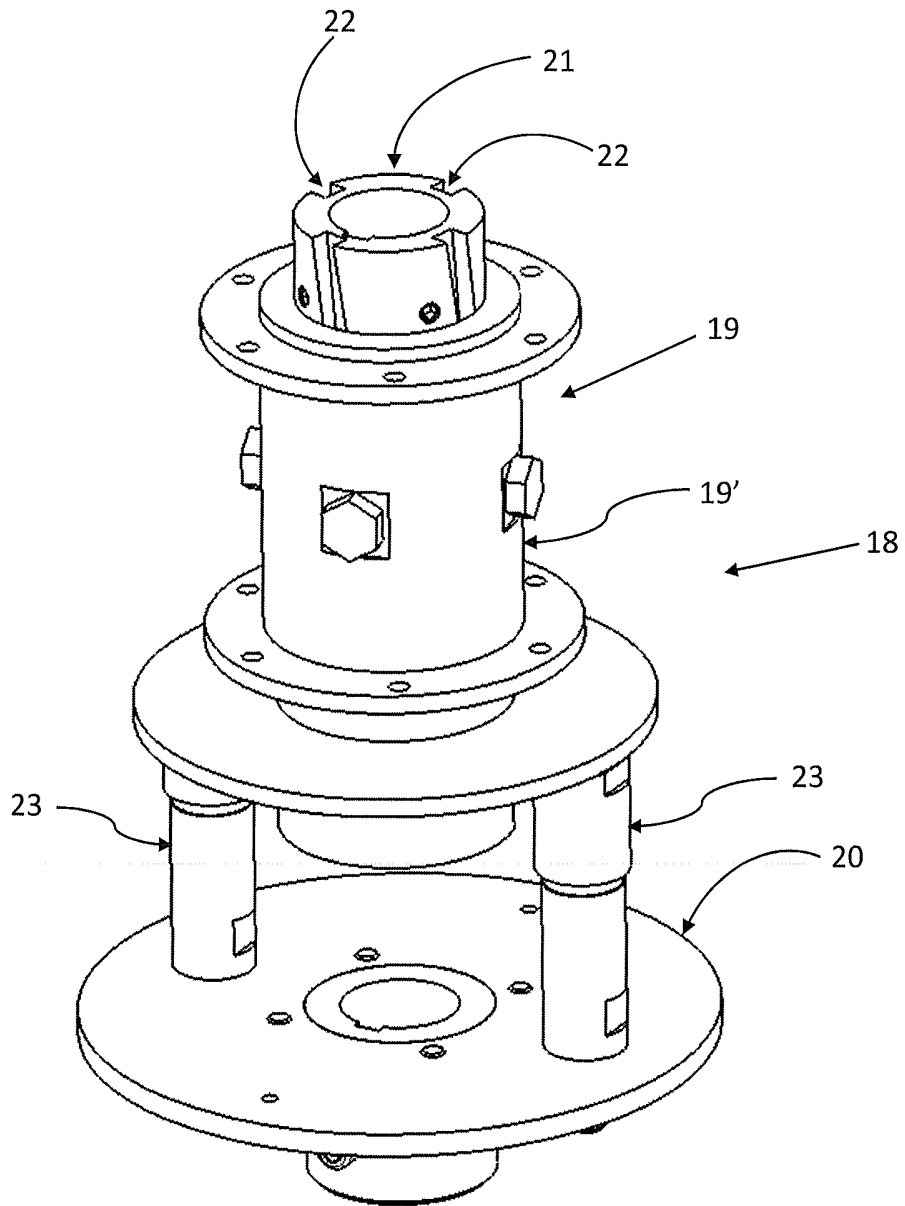


Fig.7

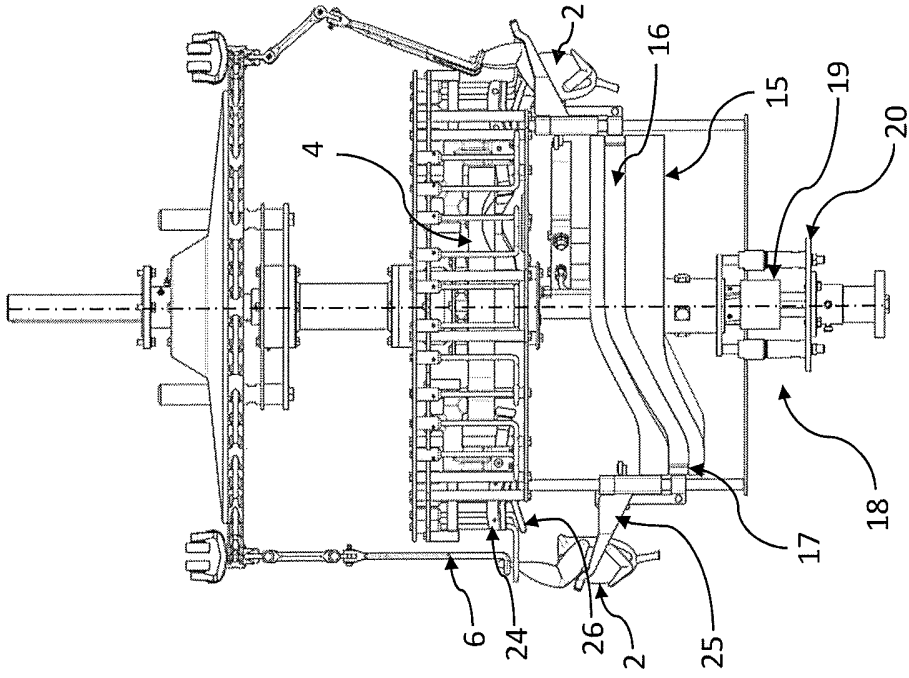


Fig.8A

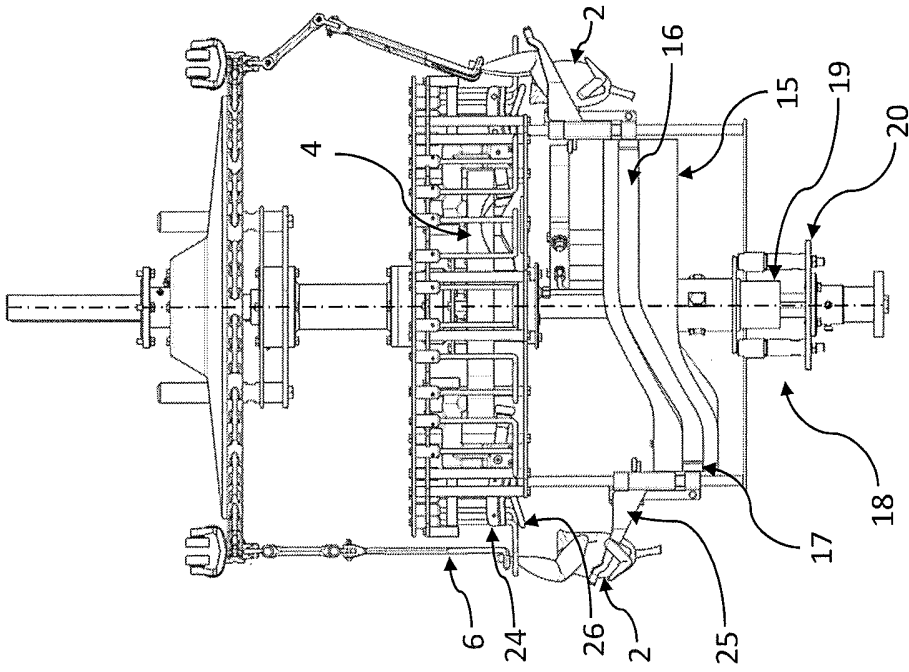


Fig.8B

ABSTRACT

An apparatus for carrying out an operation on slaughtered poultry, comprising suspension devices for suspending the poultry by the legs, a first drum which at its periphery is provided with a first curve formed by a first groove which is being traced by a first projection that connects to a first processing organ so as to arrange that movement of the first processing organ along the periphery of the first drum causes said first processing organ to be placed in an operational position with respect to the poultry being suspended by the legs. Further there are second processing means that cooperate with a second drum provided with a second curve formed by a second groove which is being traced by a second projection connected with the second processing means so as to arrange that by its movement along the periphery of the second drum said second processing means is positioned in its operational position with reference to the poultry. The apparatus further has the feature that the first drum and the second drum have an adjustable distance with respect to each other.

SAMENWERKINGSVERDRAG (PCT)

RAPPORT BETREFFENDE NIEUWHEIDSONDERZOEK VAN INTERNATIONAAL TYPE

IDENTIFICATIE VAN DE NATIONALE AANVRAGE	KENMERK VAN DE AANVRAGER OF VAN DE GEMACHTIGDE 016006 NL-PD
Nederlands aanvraag nr. 2013154	Indieningsdatum 09-07-2014
	Ingeroepen voorrangsdatum
Aanvrager (Naam) MEYN Food Processing Technology B.V.	
Datum van het verzoek voor een onderzoek van internationaal type 11-10-2014	Door de Instantie voor Internationaal Onderzoek aan het verzoek voor een onderzoek van internationaal type toegekend nr. SN62932
I. CLASSIFICATIE VAN HET ONDERWERP (bij toepassing van verschillende classificaties, alle classificatiesymbolen opgeven)	
Volgens de internationale classificatie (IPC) A22C21/06	
II. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK	
Onderzochte minimumdocumentatie	
Classificatiesysteem	Classificatiesymbolen
IPC	A22C A22B
Onderzochte andere documentatie dan de minimum documentatie, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen	
III. <input type="checkbox"/>	GEEN ONDERZOEK MOGELIJK VOOR BEPAALDE CONCLUSIES (opmerkingen op aanvullingsblad)
IV. <input type="checkbox"/>	GEBREK AAN EENHEID VAN UITVINDING (opmerkingen op aanvullingsblad)

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2013154

A. CLASSIFICATIE VAN HET ONDERWERP

INV. A22C21/06

ADD.

Volgens de Internationale Classificatie van octrooien (IPC) of zowel volgens de nationale classificatie als volgens de IPC.

B. ONDERZOCHETE GEBIEDEN VAN DE TECHNIEK

Onderzochte minimum documentatie (classificatie gevolgd door classificatiesymbolen)

A22C A22B

Onderzochte andere documentatie dan de minimum documentatie, voor dergelijke documenten, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen

Tijdens het onderzoek geraadpleegde elektronische gegevensbestanden (naam van de gegevensbestanden en, waar uitvoerbaar, gebruikte trefwoorden)

EPO-Internal, WPI Data

C. VAN BELANG GEACHTE DOCUMENTEN

Categorie °	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
X	US 2002/155803 A1 (TIELEMAN RUDOLF J [US]) 24 oktober 2002 (2002-10-24)	1,4
Y	* alineas [0001] - [0004], [0029],	9
A	[0030], [0034], [0035]; figuren 2, 3, 13, 21 *	2,3,5-8
Y,D	----- EP 1 247 453 B1 (MEYN FOOD PROC TECHNOLOGY BV [NL]) 22 februari 2006 (2006-02-22) in de aanvraag genoemd	9
A	* het gehele document *	1-8

Verdere documenten worden vermeld in het vervolg van vak C.

Leden van dezelfde octroofamilie zijn vermeld in een bijlage

° Speciale categorieën van aangehaalde documenten

A niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft

D in de octrooiaanvraag vermeld

E eerdere octrooi(aanvraag), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven

L om andere redenen vermelde literatuur

O niet-schriftelijke stand van de techniek

P tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur

T na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvraag, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding

X de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur

Y de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht

& lid van dezelfde octroofamilie of overeenkomstige octrooipublicatie

Datum waarop het onderzoek naar de stand van de techniek van internationaal type werd voltooid

23 februari 2015

Verzenddatum van het rapport van het onderzoek naar de stand van de techniek van internationaal type

Naam en adres van de instantie

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

De bevoegde ambtenaar

von Arx, Vik

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Informatie over leden van dezelfde octrooifamilie

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2013154

In het rapport genoemd octrooigeeschrift	Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
US 2002155803	A1	24-10-2002	
		US 2002155803 A1	24-10-2002
		WO 02085127 A2	31-10-2002

EP 1247453	B1	22-02-2006	
		DE 60209296 T2	09-11-2006
		DK 1247453 T3	29-05-2006
		EP 1247453 A1	09-10-2002
		NL 1017788 C2	08-10-2002
		US 2002168930 A1	14-11-2002

WRITTEN OPINION

File No. SN62932	Filing date (<i>day/month/year</i>) 09.07.2014	Priority date (<i>day/month/year</i>)	Application No. NL2013154
International Patent Classification (IPC) INV. A22C21/06			
Applicant MEYN Food Processing Technology B.V.			

This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the application
- Box No. VIII Certain observations on the application

	Examiner von Arx, Vik
--	--------------------------

WRITTEN OPINION

Application number
NL2013154

Box No. I Basis of this opinion

1. This opinion has been established on the basis of the latest set of claims filed before the start of the search.
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - on paper
 - in electronic form
 - c. time of filing/furnishing:
 - contained in the application as filed.
 - filed together with the application in electronic form.
 - furnished subsequently for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes: Claims	2, 3, 5-9
	No: Claims	1, 4
Inventive step	Yes: Claims	2, 3, 5-8
	No: Claims	1, 4, 9
Industrial applicability	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

WRITTEN OPINION

Application number
NL2013154

Box No. VII Certain defects in the application

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US 2002/155803 A1 (TIELEMAN RUDOLF J [US]) 24 oktober 2002
(2002-10-24)

D2: EP 1 247 453 B1 (MEYN FOOD PROC TECHNOLOGY BV [NL]) 22
februari 2006 (2006-02-22) in de aanvraag genoemd

The present application does not meet the criteria of patentability, because the subject-matter of claim 1 is not new.

Document D1 discloses, see the whole document and in particular the passages cited in the search report, the reference signs applying to this document:

A poultry carcass processing apparatus comprising suspension devices (44, 46) for suspending the poultry by the legs, a first drum (130) which at its periphery is provided with a first curve formed by a first groove (128, 126) which is being traced by a first projection (132, 134) that connects to a first processing organ (116, 114) so as to arrange that movement of the first processing organ along the periphery of the first drum causes said first processing organ to be placed in an operational position with respect to the poultry being suspended by the legs, and second processing means (42, 54) that cooperates with a second drum (60) provided with a second curve formed by a second groove (58) which is being traced by a second projection (56) connected with the second processing means so as to arrange that by its movement along the periphery of the second drum said second processing means is positioned in its operational position with reference to the poultry. The first drum (130) and the second drum (60) have an adjustable distance with respect to each other.

Document D1 is also considered to disclose or at least imply the features of dependent claim 4 and the subject matter of claim 4 is therefore not new either.

The present application does not meet the criteria of patentability, because the subject-matter of claim 9 does not involve an inventive step.

The apparatus according to D1 is applicable in various poultry carcass processing systems (see D2, paragraphs [0001] to [0004] and [0022], including the system as disclosed in document D2. The combination of teachings of D1 with the teachings of

D2 is thus obvious for the skilled person and deprives the subject matter of claim 9 of an inventive step.

The combination of the features of dependent claims 2, 3 and 5 to 8 is neither known from, nor rendered obvious by, the available prior art.

Re Item VII

Certain defects in the application

The relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.