Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).
Description

[0001] The present invention relates to an elastic band for tying chickens and like animals to be cooked. Such a band is known from e.g. US-A-5 816 905.

[0002] Use of loop-shaped elastic bands for tying chickens and other birds to be cooked, in particular to be roasted, is known in the art.

[0003] According to the prior art, shown in Figs. 1a and 1b, loop-shaped elastic bands are made by one or more elastic wires covered by a spiral-wound wire 5 of cotton or other synthetic fibres.

[0004] That loop-shaped elastic band is in general obtained by tying both ends of a piece of said elastic wire, so as to obtain the loop shape.

[0005] In such manner, elastic loops of different sizes can be made, suitable for tying birds of different sizes, such as chickens, turkeys and so on.

[0006] The known elastic loops are used to hold the bird legs and the wings together.

[0007] Fig. 1b shows a chicken tied with a conventional loop-shaped elastic band.

[0008] That kind of elastic bands is used by first making legs 33 of chicken 31 enter loop 7; subsequently, after having turned the loop by 180°, chicken neck 35 is introduced into the loop.

[0009] Thus, as clearly shown in Fig. 1b, chicken legs 33 are held together by a first portion 8 of the elastic loop, whereas the remaining portion 9 passes around chicken neck 35.

[0010] The above description clearly shows that using a conventional elastic band 3 for tying chickens and similar animals entails a twisting movement of the operator’s forearm and wrist to form the second loop -portion 9, which is to pass around the neck and to push wings 37 against the animal’s body.

[0011] Such a movement is repeated many and many times, about ten times per minute, in wrapping operations at industrial level.

[0012] On the long term, such a frequent repetition of the twisting movement of the forearm and wrist may cause soreness and pain, so that the operator is compelled to stop working.

[0013] Some attempts have been made in the past to realize machines which can automatically the chickens and other similar volatile using elastic rings which are placed in a crossed configuration on the chicken be tied. Such machines which are disclosed for instance in EP-A-413629, are however generally complex and expensive and in some countries of for small productions manual operation is still preferred.

[0014] It is an object of the present invention to overcome the above drawbacks of the prior art, by providing an elastic means for tying chickens and the like to be cooked, in particular to be roasted, which means is also easy to manufacture and maintains the advantages of cheapness of the conventional system.

[0015] The essential feature of the present invention will become apparent from the appended claims.

[0016] The invention will be now described in detail with particular reference to the accompanying drawings, given only by way of non limiting example, in which:

- Figs. 1a and 1b show the loop-shaped elastic band according to the prior art;
- Figs. 2a and 2b show the loop-shaped elastic band according to the present invention;
- Fig. 3 is a schematic view of the elastic band shown in Fig. 2a.

[0017] As it clearly appears from Figs. 2a and 2b, elastic band 11 according to the invention is made in an "8"-shape where two different portions are defined: a first portion or small loop 13 of smaller diameter, and a second portion or large loop 15 of larger diameter.

[0018] In the alternative, elastic band 11 could be obtained by coupling two elastic loops of the same diameters but of different moduli of elasticity.

[0019] Each loop of elastic band 11 according to the invention could be made by one or more elastic wires covered by a spiral-wound wire 5 of cotton or other synthetic fibres.

[0020] Moreover, the "8"-shape of elastic band 11 according to the invention could be obtained in different manners, e.g. by tying together the four ends of two pieces of elastic wire with different lengths, or with the same lengths but different elasticity.

[0021] When the "8"-shaped elastic band according to the invention is used, legs 33 of chicken 31 are introduced into small loop 13, which is arranged to exert a greater return force; subsequently, without any need for somehow rotating the elastic band, but by means of a pulling movement only, chicken neck 35 is made to pass through large loop 15. Thus, as clearly shown in Fig. 2b, chicken legs 33 and wings 37 are firmly held against the chicken body.

[0022] Referring also to Fig. 3, it can be appreciated that such a result is primarily attained because the return force exerted by the elastic band between chicken neck 35 and the chicken tail, that is, in longitudinal direction with respect to the animal’s body, is converted, thanks to knot 17, into a converging action transversally directed towards chicken legs 33 (corners C - D in Fig. 3) and wings 37 (corners A - B).

[0023] Advantageously, the different sizes of loops 13, 15, or their different moduli of elasticity, act so that the junction point of the loops, corresponding with knot 17, is located at the rear area of the chicken, as shown in Fig. 2b, contrary to what happened with the conventional loop in the prior art: this can be clearly seen by comparing the position of knot 17 in Fig. 2b to the position of cross point 10 in Fig. 1b.

[0024] Advantageously, according to the invention, a greater practicality in the use of the elastic band for tying birds to be cooked can be obtained, while increasing the wrapping speed in industrial application.
Claims


2. Elastic band according to claim 1, wherein said wire [1] of elastic material is covered by a spirval-wound wire [5] of different material.

3. Elastic band according to claim or 2, wherein the two loops (13, 15) defined in said "8"-shaped elastic band have different diameters.

4. Elastic band according to claim 3, wherein said elastic band (11) comprises two pieces of elastic wire of different lengths, joined at the respective ends.

5. Elastic band according to claim 1 or 2, wherein the wires in the two loops (13, 15) defined in said "8"-shaped elastic band have different moduli of elasticity.

6. Elastic band according to claim 4, wherein said elastic band (11) comprises two pieces of elastic wire with the same length but different elasticity, joined at the respective ends.

7. Elastic band according to claim 2, wherein said wire (5) covering the elastic wire (1) is made of cotton.

8. Elastic band according to claim 2, wherein said wire (5) covering the elastic wire (1) is made of synthetic fibre.

Patentansprüche

1. Elastisches Band (11) zum Umschnüren von zu ko- chendem Geflügel oder anderen Tieren (31), wobei jenes Band eine Litze (1) aus elastischem Material aufweist, dadurch gekennzeichnet, dass das elastische Band einen Knotenpunkt (17) aufweist, um ein elastisches Band in Form einer "8" zu bilden.

2. Elastisches Band nach Anspruch 1, wobei die Litze (1) aus elastischem Material von einer spiralig gewundenen Litze (5) aus unterschiedlichem Material bedeckt ist.

3. Elastisches Band nach Anspruch 1 oder 2, wobei die beiden Schlingen (13, 15) in jenem Band in Form einer "8" unterschiedliche Durchmesser haben.

4. Elastisches Band nach Anspruch 3, wobei das elastische Band (11) zwei Teilstücke einer elastischen Litze von unterschiedlicher Länge aufweist, die an den jeweiligen Enden verbunden sind.

5. Elastisches Band nach Anspruch 1 oder 2, wobei die Litzen der beiden Schlingen (13, 15), die innerhalb des elastischen Bands in Form einer "8" ausgebildet sind, unterschiedliche Elastizitätsmoduln aufweisen.


7. Elastisches Band nach Anspruch 2, wobei die die elastische Litze (1) umgebende Litze (5) aus Baumwolle hergestellt ist.

8. Elastisches Band nach Anspruch 2, wobei die die elastische Litze (1) umgebende Litze (5) aus Synthesefaser hergestellt ist.

Revendications

1. Ruban élastique (11) pour attacher des poulets ou d’autres animaux (31) à cuire, ledit ruban comprenant un fil (1) de matière élastique, caractérisé en ce que ledit ruban élastique comprend un point de jonction (17) afin de définir un ruban élastique en forme de "8".

2. Ruban élastique selon la revendication 1, dans lequel ledit fil (1) de matière élastique est recouvert par un fil enroulé en spirale (5) de matière différente.

3. Ruban élastique selon la revendication 1 ou 2, dans lequel les deux boucles (13, 15) définies dans ledit ruban élastique en forme de "8" ont des diamètres différents.

4. Ruban élastique selon la revendication 3, dans lequel ledit ruban élastique (11) comprend deux morceaux de fil élastique de longueurs différentes reliés au niveau de leurs extrémités respectives.

5. Ruban élastique selon la revendication 1 ou 2, dans lequel les fils des deux boucles (13, 15) définies dans ledit ruban en forme de "8" ont des modules d’élasticité différents.

6. Ruban élastique selon la revendication 4, dans lequel ledit ruban élastique (11) comprend deux morceaux de fil élastique de même longueur mais d’élasticité différente reliés au niveau de leurs extrémités.
7. Ruban élastique selon la revendication 2, dans lequel ledit fil (5) recouvrant le fil élastique (1) est fait de coton.

8. Ruban élastique selon la revendication 2, dans lequel ledit fil (5) recouvrant le fil élastique (1) est fait de fibre synthétique.