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(54) **A CONSTRUCTABLE UTENSIL**

KONSTRUIERBARES GERÄT

USTENSILE CONSTRUCTIBLE

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Description

Introduction

[0001] The present invention relates to utensils which are provided as part of food products to allow convenient consumption of the food.

[0002] It is known to provide such utensils of fibre-based materials such as wood, card, paper or moulded fibre, which are therefore biodegradable, renewable and do not contribute to plastics waste. An example is described in US1521768 (Herrmann). In this example a spoon is provided as a paper blank with fold lines to allow mutual rotation of sides to convert the blank from two dimensions to three dimensions with additional strength and conforming to the shape of a spoon bowl. Other examples of approaches are described in US9869575 (Ecotensil) and US3931925 (R. Stanley), and GB2281689. JPH0434971U describes a two-part constructible utensil according to the preamble of claim 1. This utensil is of plastics material, the parts fitting together with projections snap fitting into holes.

[0003] The present invention is directed towards providing an improved utensil in terms of its manner of packaging with the food product and also in its utility as a spoon, spork or fork.

Summary of the Invention

[0004] The invention provides a constructible utensil as set out in claim 1.

[0005] The invention also provides a convenience food product comprising a food container and the claimed utensil with the parts separate and one part overlying the other.

[0006] Preferably, the utensil is stored in a recess in a base of the container, or in an over-lid cavity.

[0007] The invention also provides a method of assembling the claimed utensil the method comprising grasping the parts by different hands, mutually rotating them about their longitudinal axes, pushing the parts together with the jaws of each part engaging opposed surfaces of the other part and continuing this action until the jaws snap fit in the recesses.

Detailed Description of the Invention

[0008] The invention will be more clearly understood from the following description of some embodiments thereof, given by way of example only with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of a constructible spoon when wrapped for a food product container, and Fig. 2 is a similar view of a constructible fork;

Fig. 3 is a perspective view of the spoon with the two parts separated, showing features of the spoon parts

in detail;

Fig. 4 is a perspective view showing the two parts being brought together, and Fig. 5 shown them when together as a constructed spoon ready for use; and

Figs. 6, 7, and 8 are views similar to Figs. 3, 4, and 5 of the fork.

[0009] Referring to Fig. 1 a constructible utensil in this example a spoon 1, having a handle part ("handle") 2 and a spoon head part ("head") 3. When packaged on a substrate 5 the handle 2 overlies the head 3 in a compact arrangement with a low profile. This is helped by the fact that the handle and the proximal end of the head are planar, and with the handle overlying the concave spoon surface the packaged height is only about 7.5 mm in this example. In general, it is preferred that the packaged thickness does not exceed 10mm, and it is preferred that the thickness of the material in each part does not exceed 2mm, preferably less than 1mm.

[0010] The overall dimensions of the parts 2 and 3 are in this example: the spoon head 3 is c. 66 mm in length and the handle is c. 60 mm in length. In another example these dimensions are 67.5 mm and 65.5mm, respectively. The lengths can be as desired and as space allows.

[0011] Fig. 2 shows an alternative constructible utensil, in this case a fork 100 packaged into a substrate 105. This has the handle 2 and a fork head 103 having an overall configuration which differs from the spoon 1 only at the distal end of the head.

[0012] Both utensils are entirely of wood material, in this case birch wood. In other examples the material may be different, such as bamboo, card, paper, or moulded fibre. Hence, they are completely biodegradable. As is explained in more detail below they have the major benefits of being compact when packaged because they are in two parts overlying each other with a low profile, and being long enough for convenient use when constructed, and also being strong because they are of wood material and the manner of inter-engagement of the handle and head, as described in more detail below.

[0013] A utensil of the invention may be of any type, including a knife or chopstick for example.

[0014] Referring to Figs. 3 to 5 the spoon 1 is described in more detail. The handle 2 is of planar wood configuration, having a planar body 10 with a proximal end 13 and a distal end 14 and the longitudinal direction is defined as that extending between the proximal and distal ends. The proximal end 13 end has a convex curved edge. Side edges 11 and 12 of the handle converge with a narrowing taper towards the distal end 14. The latter has a cut-out slot 17 extending in the longitudinal direction so that the planar body 10 forms a pair of jaws 15 and 16. Due to the shape of the slot 17 these jaws converge distally to form a narrow mouth of the slot 17. The handle 2 also has a central through-hole 20 proximally of the jaws 15 and 16 and on the longitudinal axis, aligned with the slot 17.

[0015] The spoon head 3 has a proximal portion 30 which is planar, having the same thickness as the handle 2. Its proximal end 30 has a cut-out slot 34 forming opposed jaws 32 and 33, which converge proximally with a similar taper angle as the jaws 15 and 16 of the handle. The slot 34 has the same dimensions as the slot 17 of the handle. The head proximal portion 30 also has a through-hole 35 which is distal from the jaws 32 and 33 and spaced from them on the longitudinal axis of the head 3 by the same extent as the hole 20 is from the jaws 15 and 16 of the handle. The distal end 31 of the head 3 is of conventional spoon shape having a concave portion 40.

[0016] Fig. 4 shows that, in use after removal from the packaging substrate 5, the handle and the head are orientated at a mutual angle of 90° about the longitudinal axes and pushed together so that the slots 17 and 34 engage each other. This pushing action is continued against the friction resistance of the ends of the jaws 15/16 and 32/33 rubbing against the planar surfaces of the other part. This resistance continues until the leading ends of the jaws snap-fit into the hole 20/35 of the other part. This informs the user that the parts 2 and 3 have fully engaged. In this position the inner edges of the jaws engage the planar surfaces of the opposed part, and this together with the snap-fitting engagements provides sufficient strength of engagement for the two parts to form a unitary spoon suitable for use with the food of the package. As is clear from Fig. 5 there is a considerable degree of overlap and the 90° mutual angle helps to provide anti-bending strength in use.

[0017] Referring to Figs. 6, 7, and 8 the fork 100 parts 2 and 103 are similar to the parts 2 and 3, except for the fork head 104 of the head part 103. Like parts are given the same reference numerals, and assembly of the fork 100 is the same as that of the spoon 1.

[0018] It will be appreciated that the utensil of the invention may take any suitable form, the distal end of the head being shaped as desired to suit the use.

[0019] A utensil of the invention is compact when packaged, can be easily assembled, and has excellent strength due to the manner of engagement of the parts. It is particularly advantageous that the material is of wood due to its biodegradable nature and strength and suitability for snap-fitting engagement as described. The overall length of the assembled utensil is nearly double that of the parts. Importantly, the jaws and the cut-out slots give the utensil particular strength whereby the handle remains firmly attached to the head while in use. The two corresponding slots also ensure strong vertical and horizontal strength

[0020] The invention is not limited to the embodiments described but may be varied in construction and detail within the scope of the claims, as would be readily understood by a person of ordinary skill in the art. However, it is particularly beneficial that the slots (as shown for the slots 17, 24) narrow gradually towards their mouths because this gives a large extent of surface contact for firm inter-engagement.

[0021] Also, at least one part may have material which extends beyond the end of the mouth of the slot, possibly to provide additional stability.

[0022] The jaws of any one pair may be of different length so that they engage the other part at different longitudinal positions. Other variations are material and overall length shape of the cutlery item. The composition may be fibre moulded pulp made from wood or bagasse.

Claims

1. A constructible utensil (1) comprising a handle part and a

head part, said parts being configured to engage each other to form a utensil, whereby the handle part comprises a slot (17) at its distal end forming a pair of jaws (15, 16),

the head part (3) comprises a slot (34) at its proximal end forming a pair of jaws (32, 33), said handle part and the head part jaws are configured to engage the other part when the parts are pushed together at a mutual angle with the proximal end (30) of the head part being received in the slot (17) of the handle part and the distal end (14) of the handle part being received in the slot (34) of the head part (3),

the handle part and the head part each comprises a through hole recess (20, 35) for snap-fitting engagement with the jaws of the other part, the recess (20) of the handle part is proximal of the handle part slot (17), and the recess (35) of the head part is distal of the head part slot (34), and the recesses (20, 35) are aligned in the longitudinal direction with the slot (17, 34) of the same part,

wherein: the handle part is planar (10), and a proximal end (30) of the head part is planar,

characterised in that

said utensil is of biodegradable wood material, the handle part and the head part pairs of jaws (17, 34) each have inner edges which converge towards a mouth of the slot and each slot converges with a taper to narrow towards the mouth of the slot,

the thickness of material in each part does not exceed 2 mm.

2. A utensil as claimed in claim 1, wherein side edges (11, 12) of the handle part converge distally to form a taper shape.
3. A utensil as claimed in claim 1 or claim 2, wherein thickness of material in each part does not exceed 1 mm.

4. A utensil as claimed in any preceding claim, wherein the utensil is selected from a spoon, a fork, and a spork.
5. A convenience food product comprising a food container and a utensil of any preceding claim with the parts separate and one part overlying the other.
6. A product as claimed in claim 5, wherein the utensil is stored in a recess in a base of the container, or in an over-lid cavity.
7. A method of assembling a utensil of any of claims 1 to 4, the method comprising grasping the parts by different hands, mutually rotating them about their longitudinal axes, pushing the parts (2, 3) together with the jaws (15/16, 32/33) of each part engaging opposed surfaces of the other part and continuing this action until the jaws snap fit in the recesses (20, 35).

Patentansprüche

1. Zusammensetzbarer Bedarfsgegenstand (1), umfassend einen Griffteil und einen Kopfteil, wobei die Teile dafür gestaltet sind, ineinander einzugreifen, um einen Bedarfsgegenstand zu bilden, wodurch der Griffteil an seinem fernen Ende einen Schlitz (17) umfasst, der ein Paar Klauen (15, 16) bildet, der Kopfteil (3) an seinem nahen Ende einen Schlitz (34) umfasst, der ein Paar Klauen (32, 33) bildet, die Klauen des Griffteils und des Kopfteils dafür gestaltet sind, in den anderen Teil einzugreifen, wenn die Teile in einem Winkel zueinander zusammengedrückt werden, wobei das nahe Ende (30) des Kopfteils in dem Schlitz (17) des Griffteils aufgenommen wird und das ferne Ende (14) des Griffteils in dem Schlitz (34) des Kopfteils (3) aufgenommen wird,

wobei der Griffteil und der Kopfteil jeweils eine Durchgangsöffnungsvertiefung (20, 35) für einen Rasteingriff mit den Klauen des anderen Teils umfasst, wobei die Vertiefung (20) des Griffteils nahe dem Griffteilschlitz (17) liegt und die Vertiefung (35) des Kopfteils fern des Kopfteilschlitzes (34) liegt und die Vertiefungen (20, 35) in der Längsrichtung an dem Schlitz (17, 34) des gleichen Teils ausgerichtet sind, wobei: der Griffteil eben (10) ist und ein nahes Ende (30) des Kopfes eben ist,

dadurch gekennzeichnet, dass

der Bedarfsgegenstand aus biologisch abbaubarem Holzmaterial ist, die Klauenpaare (17, 34) des Griffteils und des Kopfteils jeweils Innenränder aufweisen, die hin zu einer Mündung des Schlitzes zusammenlau-

fen, und jeder Schlitz mit einer Verjüngung zusammenläuft, um sich zur Mündung des Schlitzes hin zu verengen, wobei die Materialdicke in jedem Teil 2 mm nicht übersteigt.

2. Bedarfsgegenstand nach Anspruch 1, wobei Seitenränder (11, 12) des Griffteils fern zusammenlaufen, um eine Verjüngungsform zu bilden.
3. Bedarfsgegenstand nach Anspruch 1 oder Anspruch 2, wobei die Materialdicke in jedem Teil 1 mm nicht übersteigt.
4. Bedarfsgegenstand nach einem vorhergehenden Anspruch, wobei der Bedarfsgegenstand aus einem Löffel, einer Gabel und einem Göffel ausgewählt ist.
5. Fertigerzeugnis, umfassend einen Lebensmittelbehälter und einen Bedarfsgegenstand nach einem vorhergehenden Anspruch, wobei die Teile getrennt sind und ein Teil über dem anderen liegt.
6. Produkt nach Anspruch 5, wobei der Bedarfsgegenstand in einer Vertiefung in einem Boden des Behälters oder in einem Deckelhohlraum untergebracht ist.
7. Verfahren zum Zusammenfügen eines Bedarfsgegenstandes nach einem der Ansprüche 1 bis 4, wobei das Verfahren das Ergreifen der Teile mit verschiedenen Händen, das Zueinander-Drehen derselben um ihre Längsachsen, das Zusammendrücken der Teile (2, 3), wobei die Klauen (15/16, 32/33) jedes Teils mit gegenüberliegenden Oberflächen des anderen Teils in Eingriff gelangen, und das Fortsetzen dieses Vorgangs, bis die Klauen in die Vertiefungen (20, 35) einrasten, umfasst.

Revendications

1. Ustensile en mesure d'être assemblé (1) comportant une partie formant manche et une partie formant tête, lesdites parties étant configurées pour se mettre en prise l'une par rapport à l'autre pour former un ustensile, ce par quoi la partie formant manche comporte une fente (17) à son extrémité distale formant ainsi une paire de mâchoires (15, 16), la partie formant tête (3) comporte une fente (34) à son extrémité proximale formant ainsi une paire de mâchoires (32, 33), les mâchoires de ladite partie formant manche et de ladite partie formant tête sont configurées pour se mettre en prise avec l'autre partie quand les parties sont poussées ensemble selon un angle mutuel, l'extrémité proximale (30) de la partie formant tête étant reçue dans la fente (17) de la partie formant manche et l'extrémité distale (14)

de la partie formant manche étant reçue dans la fente (34) de la partie formant tête (3),

la partie formant manche et la partie formant tête comprennent chacune un évidement de trou traversant (20, 35) servant à des fins de mise en prise par enclenchement avec les mâchoires de l'autre partie, l'évidement (20) de la partie formant manche est proximal par rapport à la fente (17) de la partie formant manche, et l'évidement (35) de la partie formant tête est distal par rapport à la fente (34) de la partie formant tête, et les évidements (20, 35) sont alignés dans la direction longitudinale sur la fente (17, 34) de la même partie, dans lequel : la partie formant manche est plane (10), et une extrémité proximale (30) de la partie formant tête est plane,

caractérisé en ce que

ledit ustensile est en matériau de bois biodégradable,

les paires de mâchoires (17, 34) de la partie formant manche et de la partie formant tête ont chacune des bords intérieurs qui convergent vers une embouchure de la fente et chaque fente converge avec une conicité pour aller en se rétrécissant vers l'embouchure de la fente, l'épaisseur du matériau dans chaque partie ne dépasse pas 2 mm.

2. Ustensile selon la revendication 1, dans lequel les bords latéraux (11, 12) de la partie formant manche convergent en direction distale pour réaliser une forme conique.

3. Ustensile selon la revendication 1 ou la revendication 2, dans lequel l'épaisseur de matériau dans chaque partie ne dépasse pas 1 mm.

4. Ustensile selon l'une quelconque des revendications précédentes, dans lequel l'ustensile est sélectionné parmi une cuillère, une fourchette et une cuillère-fourchette.

5. Produit pour aliment prêt à consommer comportant un contenant alimentaire et un ustensile selon l'une quelconque des revendications précédentes, les parties étant séparées et une partie recouvrant l'autre.

6. Produit selon la revendication 5, dans lequel l'ustensile est rangé dans un évidement dans une base du contenant, ou dans une cavité sur le couvercle.

7. Procédé d'assemblage d'un ustensile selon l'une quelconque des revendications 1 à 4, le procédé comportant les étapes consistant à saisir les parties au moyen des différentes mains, à les faire tourner

mutuellement autour de leurs axes longitudinaux, à pousser les parties (2, 3) ensemble, les mâchoires (15/16, 32/33) de chaque partie venant se mettre en prise avec des surfaces opposées de l'autre partie et à continuer cette action jusqu'à ce que les mâchoires s'enclenchent dans les évidements (20, 35).

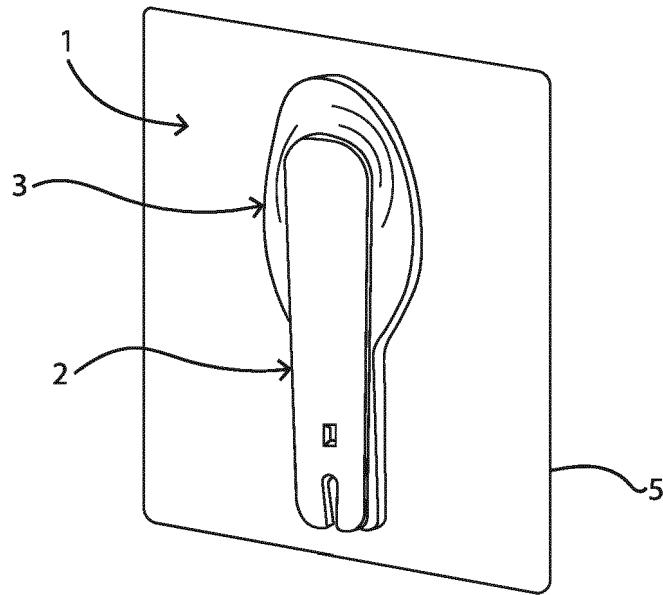


Fig.1

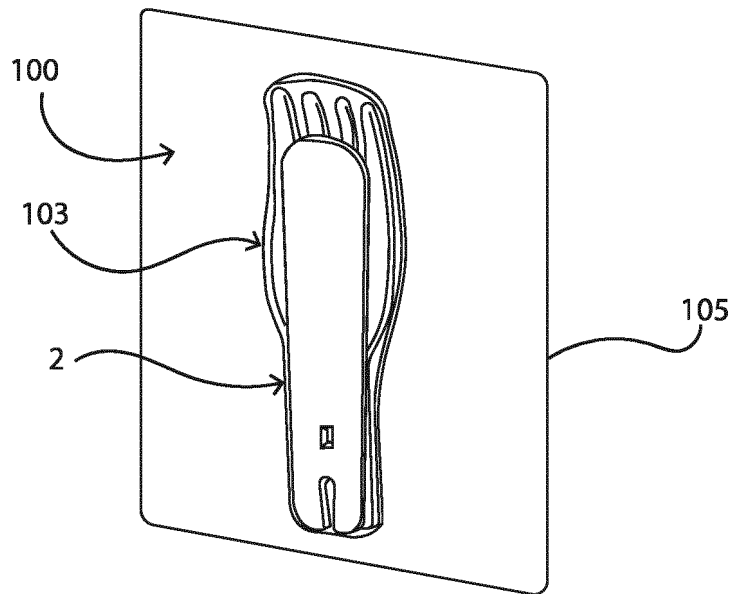


Fig.2

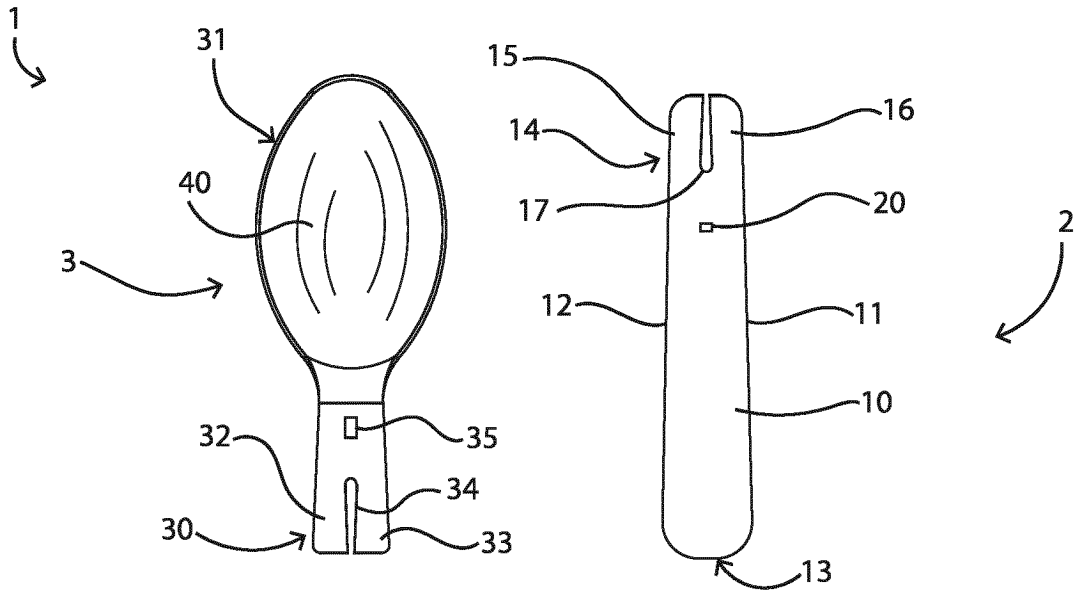


Fig.3

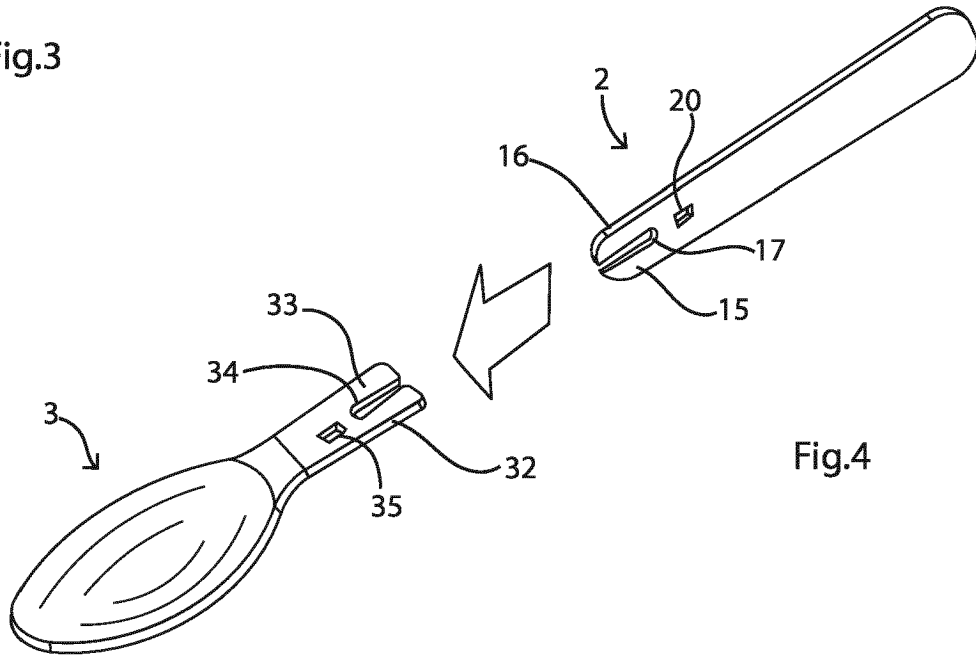


Fig.4

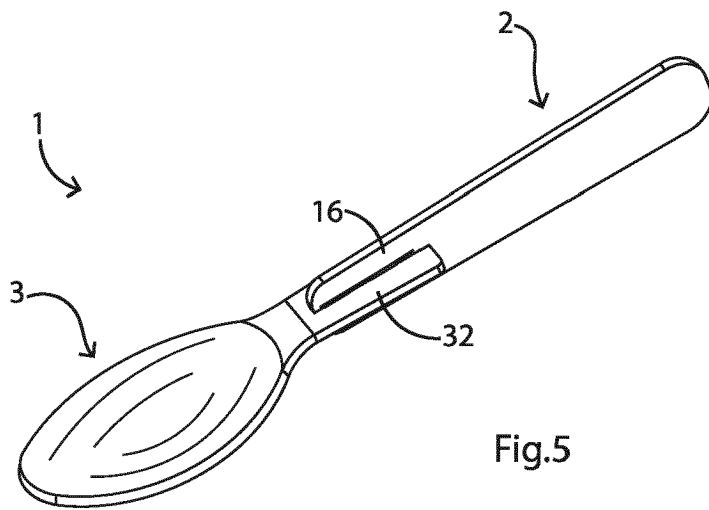
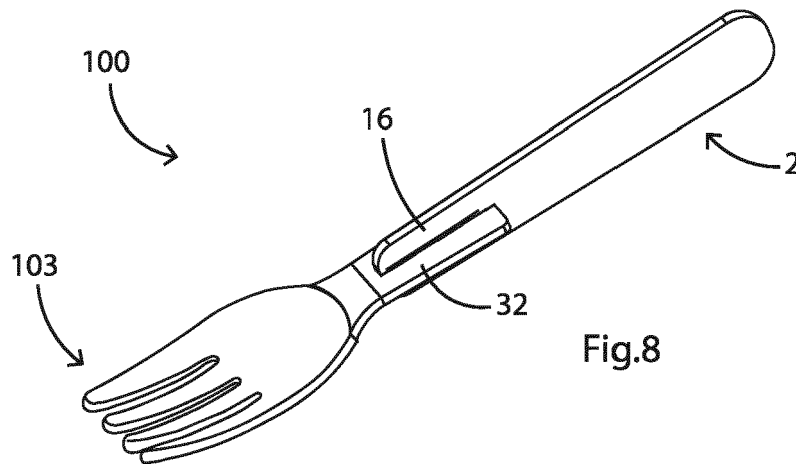
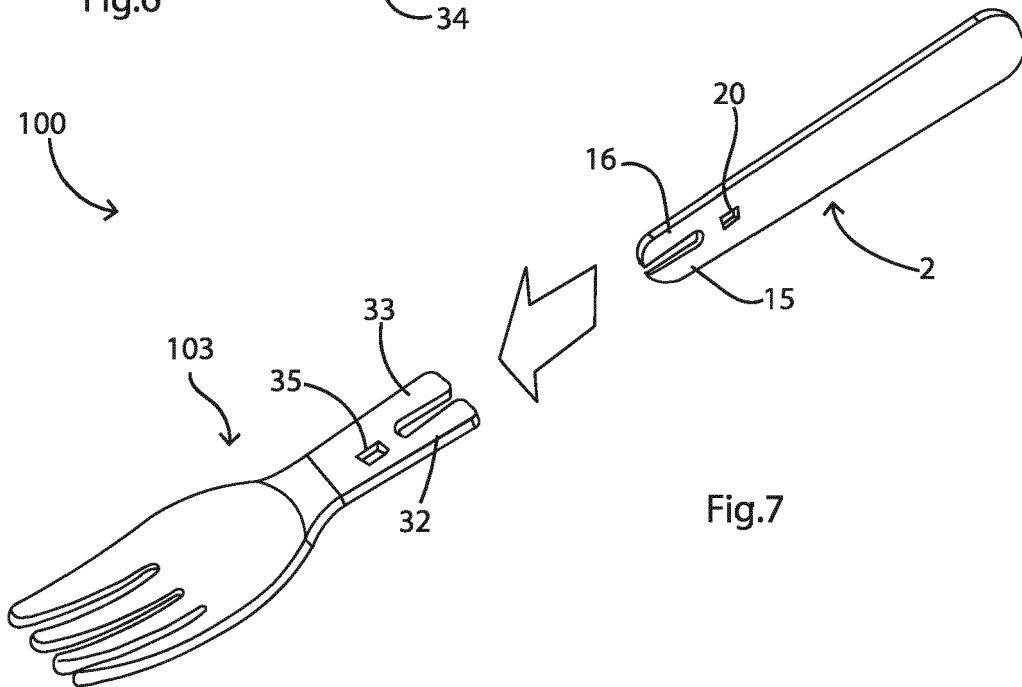
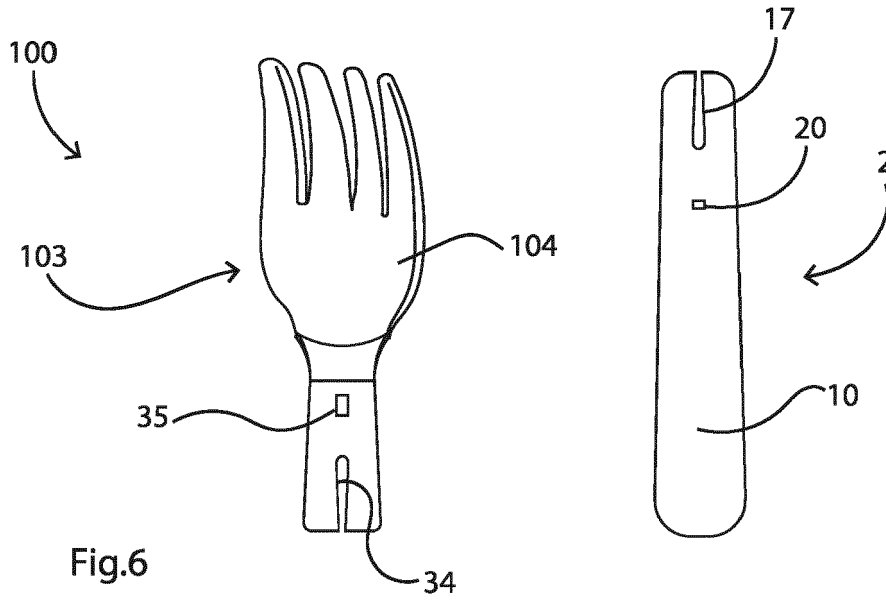


Fig.5



REFERENCES CITED IN THE DESCRIPTION

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