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(71) Applicant: **Marcato S.p.A.**
35011 Campodarsego (PD) (IT)

(72) Inventor: **Marcato, Pietro**
35011 Campodarsego PD (IT)

(54) **IMPROVED PASTA CUTTER**

(57) This is a pasta and pastry cutter for caarrying out lincar or serrated cutting of pastry; said manual tool, which is easy to maintain, makes it possible, by means of a single device, to have various types of cutting to meet the user's requirements.

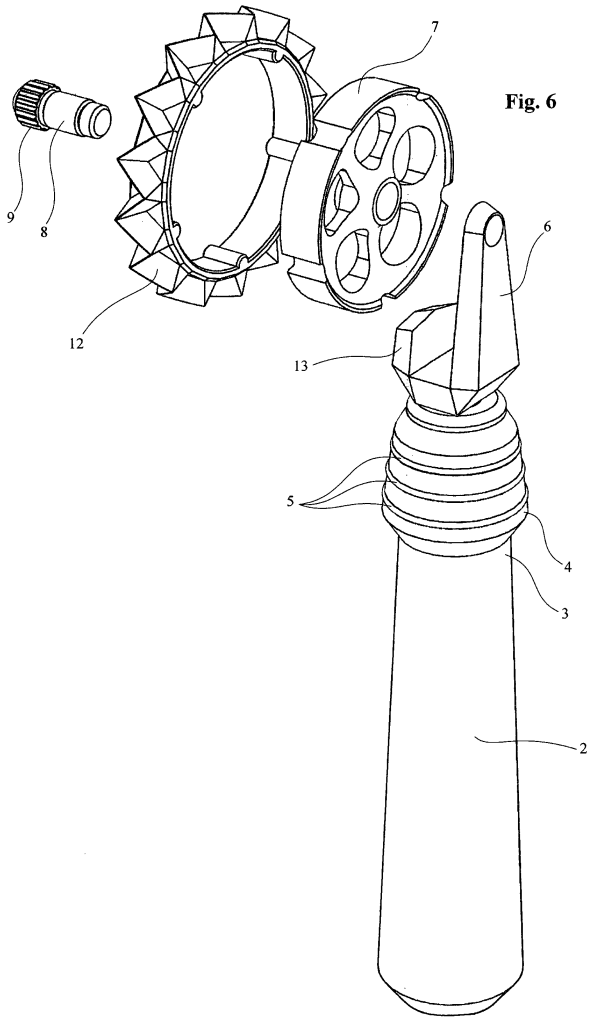

Fig. 6

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Description

[0001] The object of the invention relates to a pasta cutter for performing linear or serrated cuts of pasta. Sometimes the same tool is also referred to as a pastry cutter.

Prior art

[0002] The practice of cutting pasta using the classic pasta cutter is well known.

[0003] Said classic pasta cutter is composed of a tubular handle, at the end of which extends a matched pair of arms supporting a cutting disc that is hinged to it.

[0004] Said cutting disc is composed of a laminar element sharpened on its circumferential edge.

[0005] The distance separating the two arms generally is the minimum distance to allow the free rotation of the cutting disc.

[0006] Said hinging is generally composed of a rivet, flattened out in an irreversible manner.

[0007] This production method with all the various pieces fixed together, with small gaps and parts that are difficult to reach, makes it difficult to thoroughly clean the pasta cutter.

[0008] The tool does not allow any of the parts to be maintained or replaced, both because of the very nature of its construction and also because of the fact that there are no parts on the market for carrying out repairs or replacing parts.

[0009] In fact, said elements that constitute the classic pasta cutter, because of their design and construction, with a permanent type of assembly, are so inexpensive that they do not justify the presence of any spare parts on the market.

[0010] Since, however, it is necessary that the pasta must also be cut in ways other than just linear, for example with a zigzag, it is customary that in kitchens you can find another pasta cutter whose cutting disc is configured with the outer edge having a zigzag pattern.

[0011] Said cutter with the zigzag pattern cutting disc is in every way created and assembled like the classic cutter with a smooth disc. Also in this case there is no provision for any maintenance, but only for the replacement of the entire tool if some part deteriorates and becomes unusable.

[0012] In fact, said very simple and cheap tools, usually made in a rather imprecise manner, are easily subject to wear and tear and do not stand up to any unanticipated stress, so simply falling on the floor compromises, for example, precise circumferential cutting, or else the discs leave their housing or the handle gets ruined, or the arms on the tubular handle become loose.

[0013] Any of such events can actually make the tool unusable, because the cutting will be no longer performed linearly, sometimes the continuous cut of the pasta will have spacing, etc.

[0014] In such circumstances, with a tool rendered only partially damaged, and since maintenance is impossible, the entire cutter has to be completely replaced.

[0015] Moreover, a further problem that affects every user is that of the space taken up by all the various household tools, whereby even just the addition of a small additional object can be a challenge. Even in that respect many users are content with the bare minimum, namely the cutter with the smooth disc for linear cuts, while others have the luxury of giving themselves (since they have more available space) also an additional tool for cutting pasta with the zigzag-shaped disc.

[0016] It is clear that in addition to these tools, very few users purchase more diversified tools with specific cutting profiles, and therefore the market for such potential users, given the small numbers, fails to make any other tool available.

Scope of the invention

[0017] The main object of this invention is to provide a pasta cutter which can overcome the drawbacks of the prior art.

[0018] A further object of this invention is to provide a cutter which is easy to maintain. Another object of this invention is to provide a cutter whose various parts can easily be cleaned.

[0019] Yet another object of this invention is to provide a cutter whose various parts that have been ruined can be maintained.

[0020] An important object of this invention is to provide a cutter that can easily achieve the desired cutting of the pasta according to the requirements of the various recipes.

[0021] An equally important object of this invention is to provide a cutter that takes up little space.

Explanation of the invention

[0022] All the aforesaid objects are achieved by an improved pasta cutter as set out in the enclosed claims.

[0023] In particular the object of this invention consists of a pasta cutter which is composed of a handle at the end of which is fixed, in a rotating manner and overhanging using at least one arm, a support wheel of a disc on whose outer part the cutting blade is profiled, this disc being able to be disconnected from the support and replaced with a similar disc, but this time equipped with a cutting profile that has a different shape.

Advantageous features of the invention

[0024] Advantageously, said at least one arm is the sole support arm, overhanging in a hinged manner, of the wheel.

[0025] Advantageously, said connection between said arm and said wheel is made through a connection that does not need any tool to for its assembly and loosening for the removal and replacement of the disc supported

by the wheel.

[0026] Very advantageously said connection element between the said arm and said wheel is a bolt with a knurled head, set on the opposite side to the support arm of the wheel and with the tool axis orthogonal to the main axis; thus reducing the overall dimensions (top view) within the diameter of the upper end of the handle.

[0027] The retaining abutment is very important, which is raised with respect to the handle and forms a containment, from the part opposite the support arm, up to the proximity of the diametrical dimension of the wheel, in order to restrain the disc from any unexpected instances of coming out of the housing.

[0028] But above all said retention abutment turns out to be a good protection against possible and unwanted side collisions with the fingers of the operator that regrettably might have slipped along the handle.

[0029] In fact the handle is profiled ergonomically, not so that it can be gripped more easily, and therefore tapered from the free end toward the operating tool, but also, with a substantial enlargement near the tool, to prevent the hand from sliding; furthermore that enlargement has a series of O-rings, which are spaced apart and raised, which provide a good grip against slipping.

[0030] These and other advantages which will become more apparent from the description which follows, with reference to an example, and not limited, of an embodiment, achieved by the improved pasta cutter that is the object of this invention according to the enclosed claims.

Brief description of the drawings

[0031] The technical characteristics of the invention, according to the aforesaid aims, can clearly bee seen in the content of the claims below, and its advantages will become more readily apparent in the detailed description that follows, made with reference to the accompanying drawings, which illustrate a preferred embodiment, purely exemplary and not limiting, in which:

Fig. 1 shows a perspective view of the improved pasta cutter of the invention.

Fig. 2 shows what is set out in fig. 1 from a different perspective that highlights the lateral containment of the wheel from both sides, and respectively from the support arm and from the retaining abutment.

Fig. 3 shows what is set out in fig. 1 from a different perspective that highlights the overhanging support of the wheel hinged onto the free end of the support arm.

Fig. 4 shows a different view of the previous diagram in which the application of the cutting disc on the wheel is evident.

Fig. 5 shows a sectional view of the improved pasta cutter which highlights the structure and correlation between the various parts constituting the device.

Fig. 6 and fig. 7 are exploded views from different perspectives of the improved cutter.

Figs. 8, 9 and 10 show an embodiment of several discs that have different profiles for the cutting blade.

Detailed description of an example of a preferred embodiment

[0032] With reference to the drawings, the pasta cutter device 1 is composed of a handle 2 profiled in a tapered manner 3 towards the tool.

[0033] Moreover, as was explained, said handle 2 has an enlarged part 4 that provides a firm grip and prevents the operator's hand from slipping during the cutting action directly onto the tool. To prevent this possibility further said enlargement 4 of the handle 2 has a series of O-rings 5 spaced apart and raised with respect to the outer surface of the thickened section, whose rubbery material provides a secure non-slip grip.

[0034] From this end of the handle 2 that has the thickened section 4 a support arm 6 of the washer 7 that supports the cutting discs 10, 11, 12 detaches.

[0035] With this structure, then, the arm 6 supports the washer 7 hinged on its free end.

[0036] For the hinging, a solution was adopted that equally simplifies the installation and the removal of the washer.

[0037] The hinging pin 8 is composed of a bolt with a knurled head 9 so that it can easily be maneuvered manually and without tools.

[0038] Said bolt 8 is inserted through a central throughhole of the washer 7 engaging in the threaded seat on the free end of the support arm 6.

[0039] The knurled head 9 of the bolt 8 therefore remains on the opposite side of the support arm 6 with respect to the washer 7, with this arrangement reducing the overall dimensions, according to a top view of the tool 1, which is contained within the profile of the top enlarged part 4 of the handle 2.

[0040] The compact dimensions, which has no protruding elements, is important for ease of handling when the pasta cutter 1 is being used, so that it does not inadvertently get caught on extraneous objects.

[0041] Said washer 7 on its circumferential edge is joined to a cutting disc 10, 11, 12 in an easily replaceable manner, to adapt to the contingent requirements of the profile of the pasta.

[0042] In fact, the operator, by gripping the knurled head 9 of the hinging bolt 8, with just a few turns can remove this washer 7 for removing a disc 10, 11, 12 and replacing it with a different disc equipped with an appropriate profile.

[0043] The reassembly is the same as explained above, just in the reverse order.

[0044] Another particular feature is the protection of the abutment 13 which performs at least one protection function and/or a confinement function against detachment of the disc 10, 11, 12 from the washer 7.

[0045] In fact said abutment 13 which rises from the handle 2 in a specular manner opposite to the support

arm 6, up to a position at the washer 7, creates a containment surface close to the disc 10, 11, 12, which cannot freely detach itself from the washer 7.

[0046] Moreover, as shown said abutment 13 is a further protection for the operator, in the case in which their fingers slip over the thickened part 4 of the handle 2, preventing them coming into contact with the cutting blade of the disc 10, 11, 12.

[0047] Said cutting discs have a blade or cutting profile, respectively smooth, 10, with a narrow zigzag 11, and a wide zigzag 12; but other configurations and shapes are possible.

Claims

1. Improved pasta cutter which is composed of a handle (2) at the end of which is fixed in a rotating and overhanging manner, by at least one sustaining arm (6), a wheel (7) for supporting a disc (10, 11, 12) on whose outer part is the cutting blade, where said disc (10, 11, 12) can be disconnected from the support wheel and replaced with a similar disc equipped with a cutting profile that has a different shape.

2. Improved pasta cutter according to claim 1 **characterised by** the fact that said at least one arm (6) is the only overhanging hinged support arm of said wheel (7) fixed in a manner so that it can easily be taken apart.

3. Improved pasta cutter according to claim 1 **characterised by** the fact that said the connection between said support arm (6) and said support wheel (7) is made using a connection that can be carried out manually and that does not need any tools to be used for the assembly and to be loosened for the removal and replacement of the disc (10, 11, 12) supported by the wheel (7).

4. Improved pasta cutter according to the previous claim **characterised by** the fact that said connection element between said arm and said wheel is carried out using a bolt (8) with the knurled head (9), on the opposite side to the support arm (6) of the wheel (7) and with the main axis orthogonal to the main axis of the cutting tool (1).

5. Improved pasta cutter according to the previous claim **characterised by** the fact that the overall dimensions (top view) of the support arm (6) and of the bolt (8) opposite with a knurled head (9) is within the diameter of the upper end of the handle (1).

6. Improved pasta cutter according to claim 1 **characterised by** the fact that it comprises a retaining abutment (13), which rises above the handle (2) and forms a containment, the side opposite to the support arm (6), up to near the diametrical dimension of the wheel (7), in order to restrain at least the disc (10, 11, 12) and eventually the wheel (7) against unforeseen stresses that could cause them to come out of their housings.

7. Improved pasta cutter according to the previous claim **characterised by** the fact that said retaining abutment (13) is a valid protection against possible unwanted side collisions with the operator's fingers that might have unfortunately slipped along the handle.

8. Improved pasta cutter according to claim 1 **characterised by** the fact that the handle (2) is ergonomically profiled, tapered (3) from the free end toward the operating tool, and having a solid enlarged part (4) near the tool, to prevent the hand slipping.

9. Improved pasta cutter according to the previous claim **characterised by** the fact that said enlargement (4) has a series of O-rings (5) arranged in a circumferential manner, spaced apart and raised with respect to enlargement surface (4) that provide a good grip to prevent slipping.

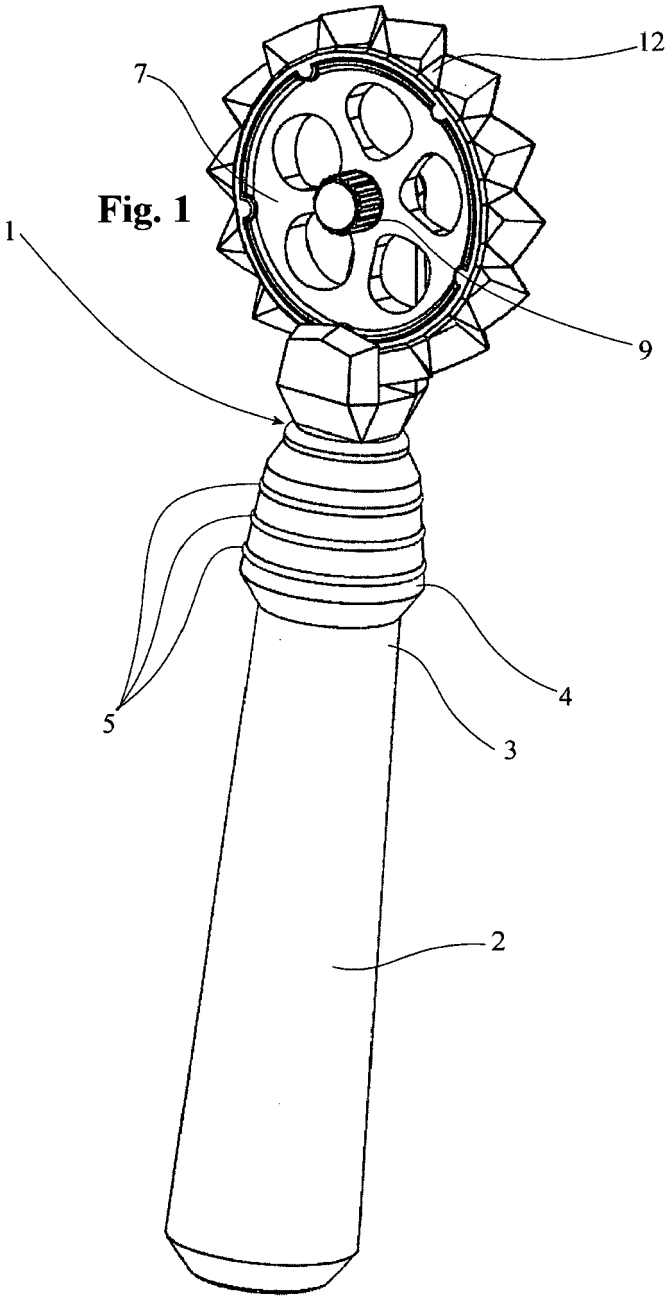
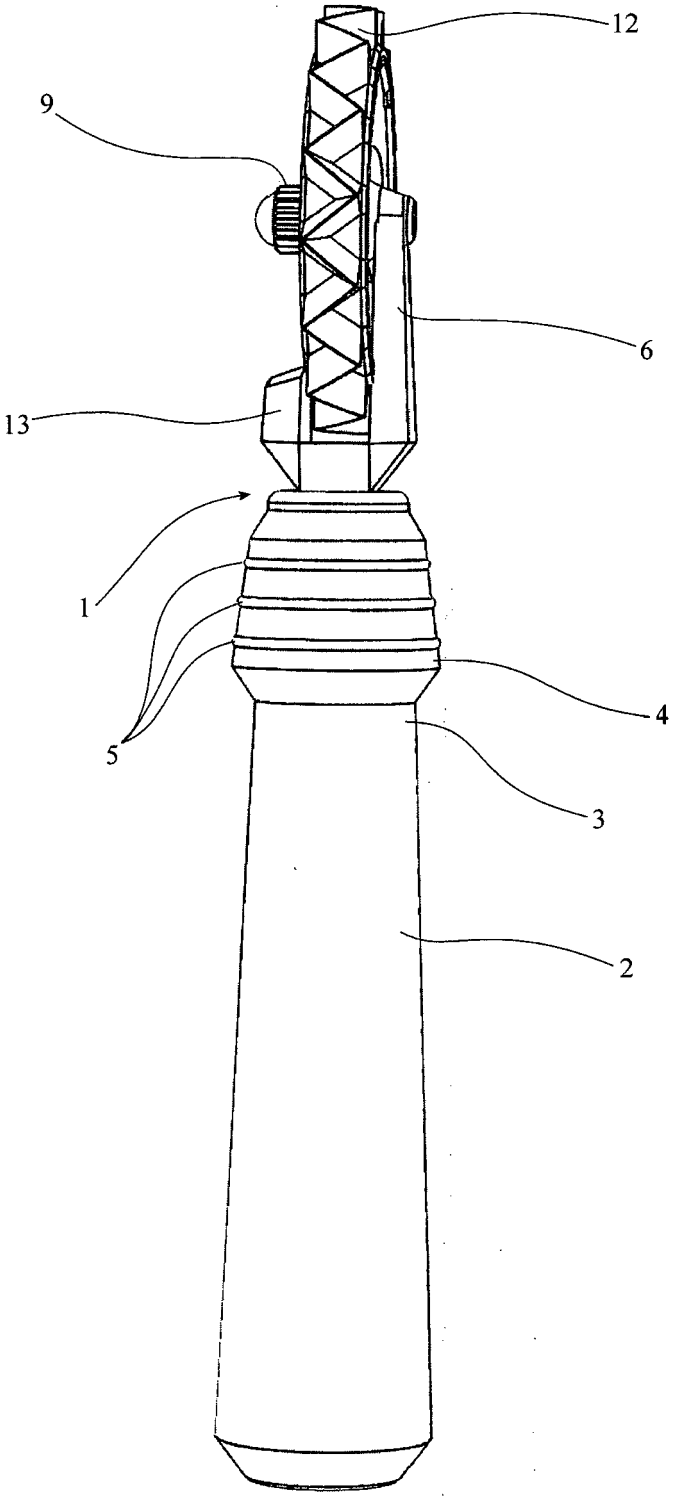


Fig. 1

Fig. 2



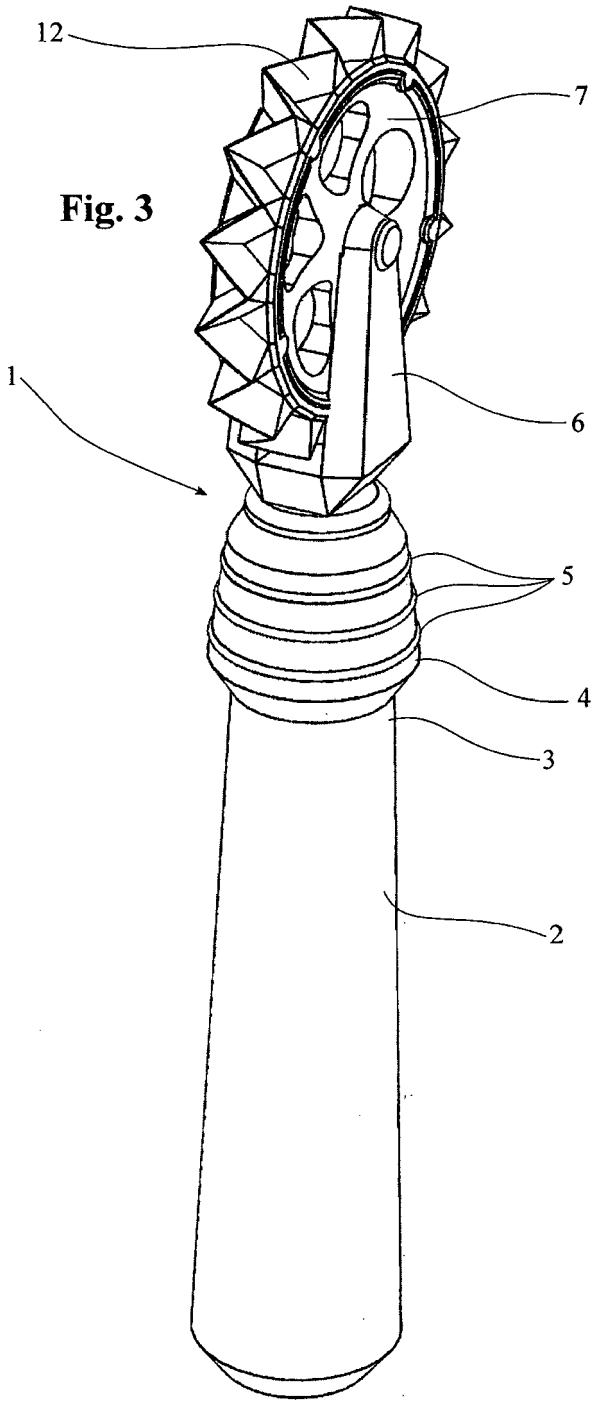
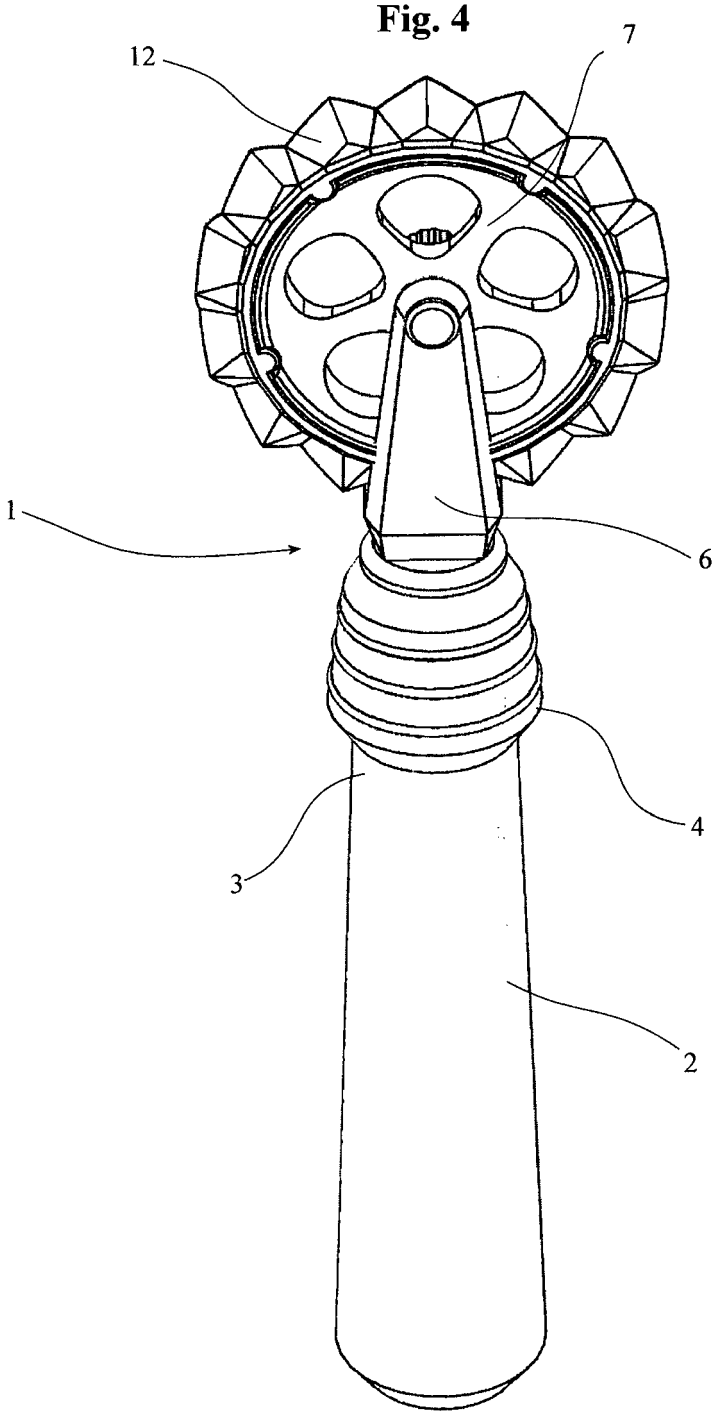


Fig. 3

Fig. 4



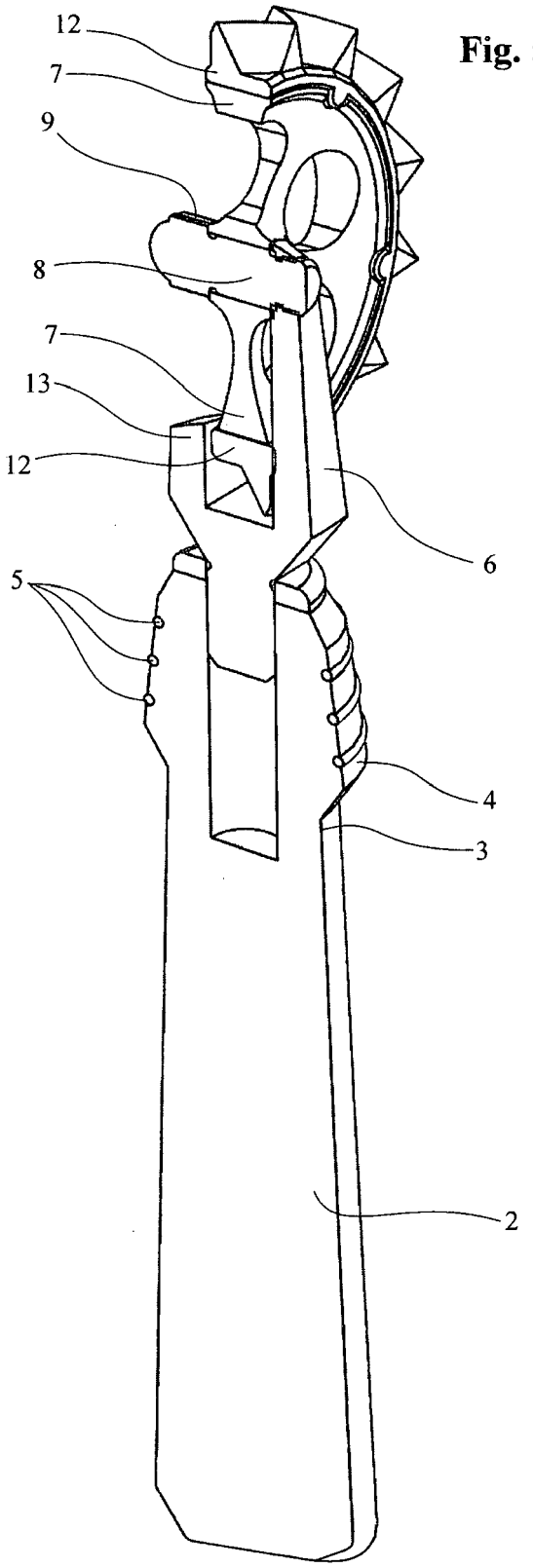


Fig. 5

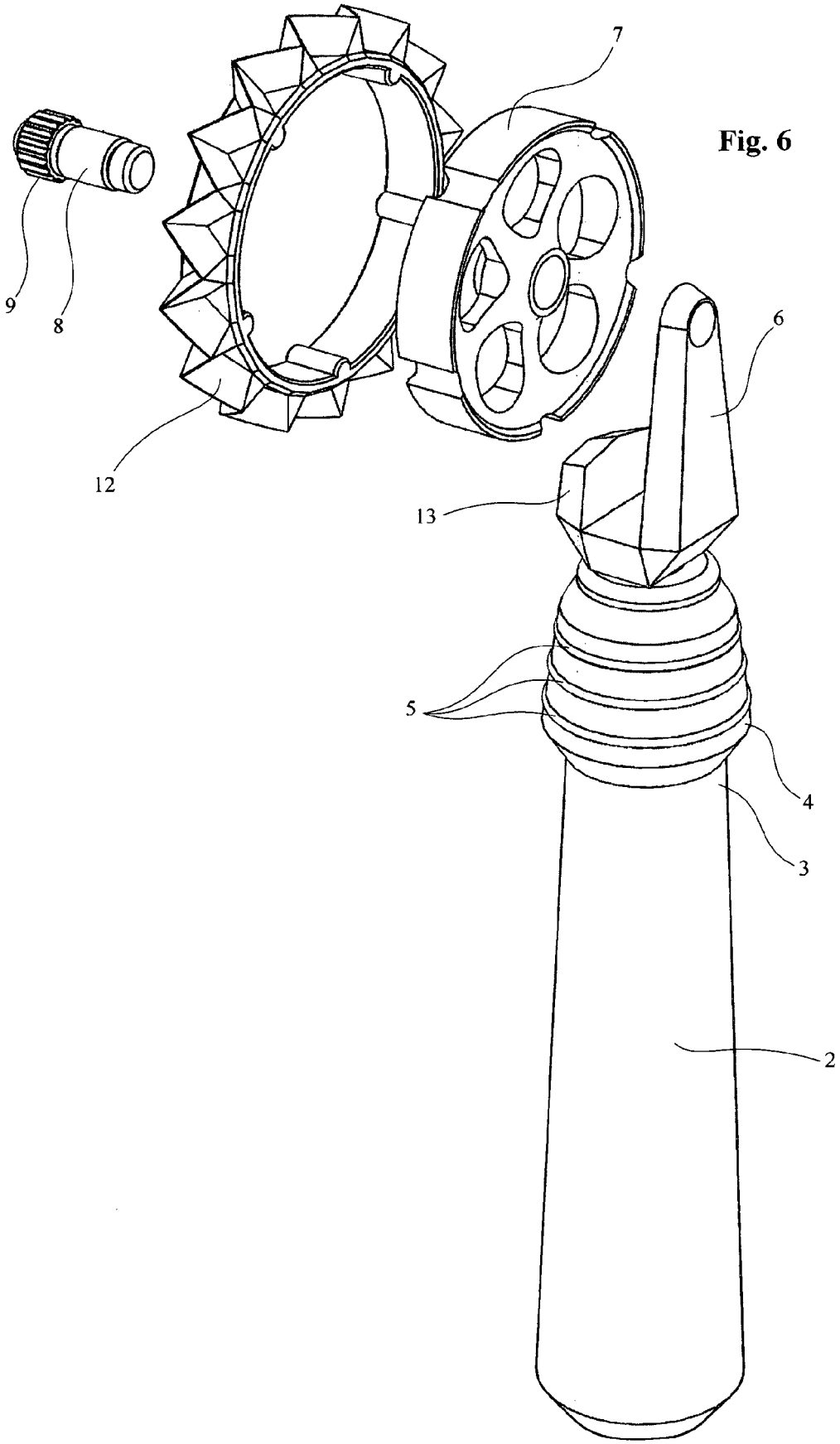


Fig. 6

Fig. 7

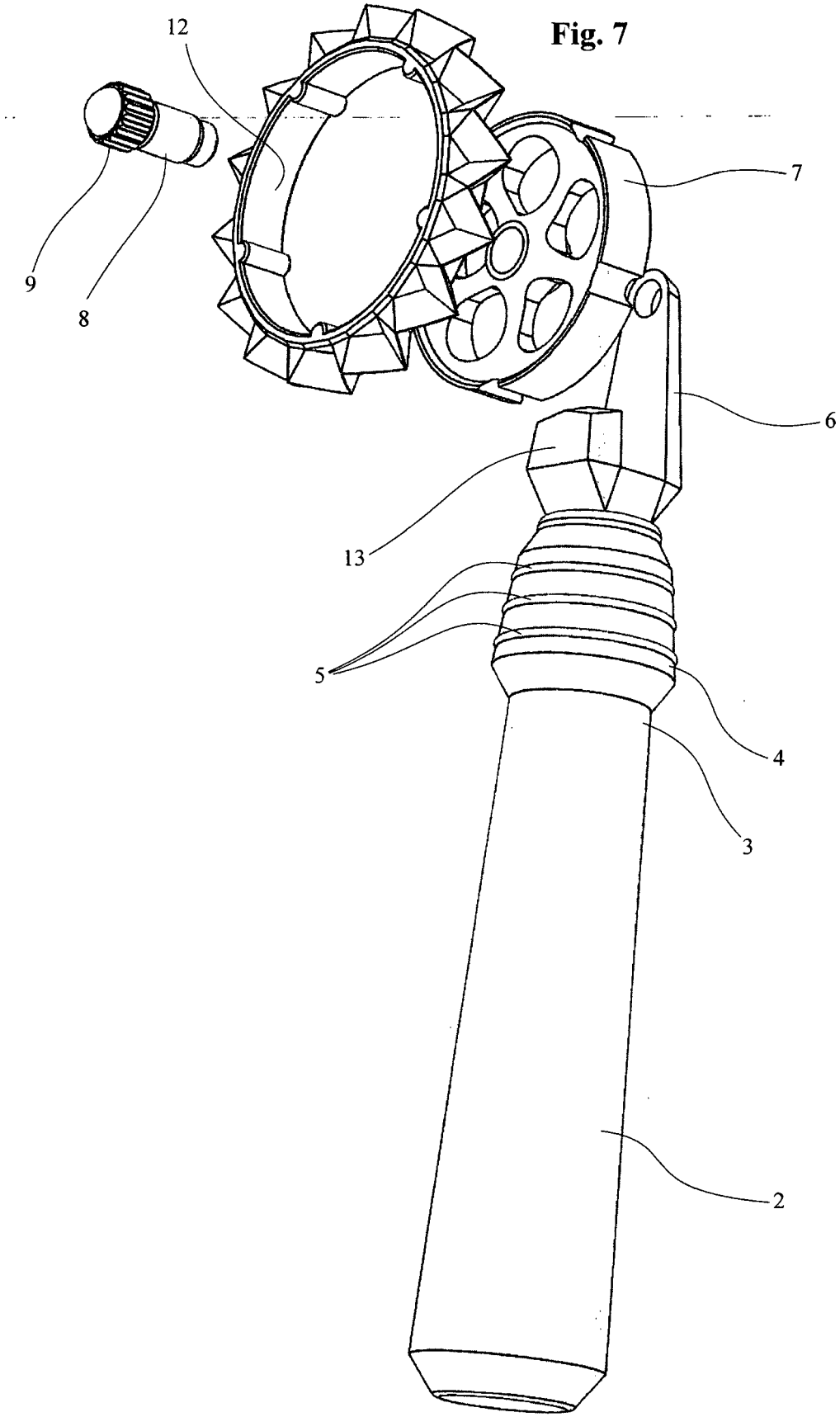


Fig. 10

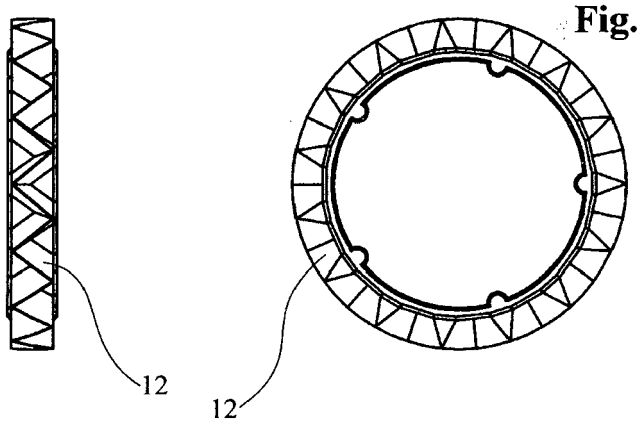


Fig. 9

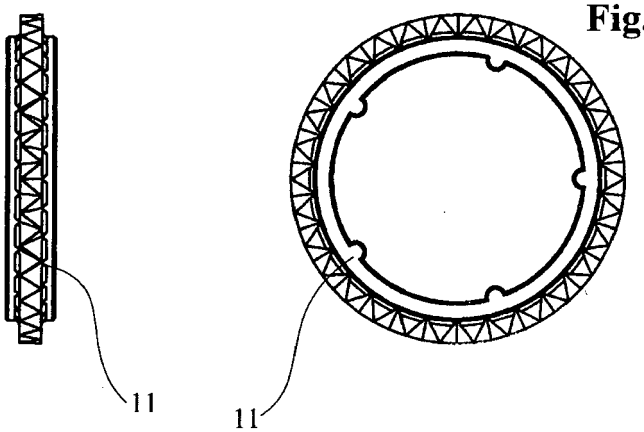
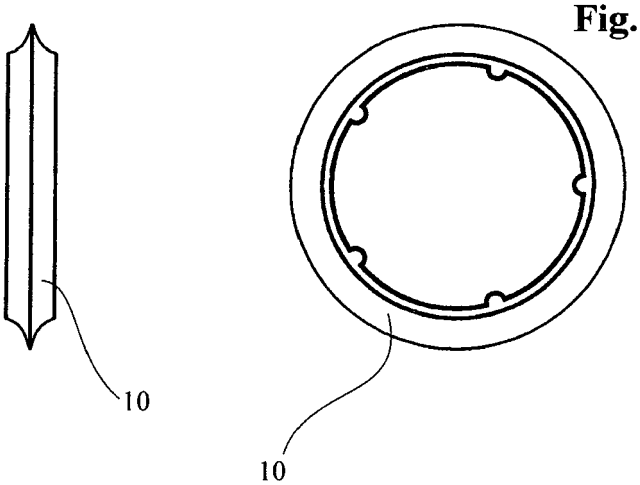


Fig. 8



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EUROPEAN SEARCH REPORT

Application Number
EP 16 00 0381

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 2014/298663 A1 (HORGAN GARY A [US]) 9 October 2014 (2014-10-09)	1-5,8,9	INV. B26B25/00
A	* paragraph [0133]; figure 12 *	6,7	
Y	US 3 286 349 A (LARSON GEORGE G) 22 November 1966 (1966-11-22) * column 2, lines 38-53; figures 1-3 * * column 3, lines 14-20 *	1-5,8,9	
Y	US 5 144 749 A (CHEN CHIEN-TANG [TW]) 8 September 1992 (1992-09-08) * column 1, lines 49-65; figure 2 *	1-5,8,9	
Y	US 2005/188545 A1 (POTEET MICHAEL A [US]) 1 September 2005 (2005-09-01)	8,9	
A	* paragraphs [0028], [0032]; figures 1-5 *	6,7	
A	US 2003/033720 A1 (CHEN SHAN-MING [TW]) 20 February 2003 (2003-02-20) * paragraph [0018]; figures 4, 8A-8D *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC) B26B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	13 June 2016	Rattenberger, B

CATEGORY OF CITED DOCUMENTS

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