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- (54) Benævnelse: **Forbedret strikkepind og fremgangsmåde til fremstilling af en rundstrikkepind**
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The invention relates to an improved knitting needle, as well as a method for manufacturing a round knitting needle in accordance with the invention.

Knitting needles have been known for many years and can be obtained in a number of varieties. The DE 1 686 720 U and the US 7,874,181 B1, respectively
5 describe the knitting needles, which are non-circular in the area of the shaft or grip zone, or feature ridges or indentations in order to also enable longer, ergonomic knitting more comfortable for the fingers. Hereby, the knitting process as such is not made easier or influenced.

The DE 1 609 910 U, as well as the DE 825 299, respectively describe a knitting
10 needle which should make the knitting itself easier for an operator, also if this person is somewhat ungainly. Here, the point of the needle features a complete, or partial inhibiting deflection of the thread return, for example, a constriction, a bulge on one side or also a bulge on two sides or on up to all sides. However, the disadvantage of this form of the point of the needle is that the knitting yarn can
15 become entangled in the constriction, or behind the bulge, so that further knitting using this specifically formed point of needle is difficult. Furthermore, in the case of most needles, only one side is provided with an appropriate point, whilst the other side features a normal point of the knitting needle. Knitting using two points on the needle that are accordingly formed is also difficult. Furthermore, in
20 the area of the points of the needle, the knitting needles are designed very pointed, which can result in injuries. Furthermore, whilst knitting - in particular if using thicker yarn - there is the danger of piercing the yarn. If the operator notices this, the point of the needle must be withdrawn, which delays the knitting process. If this is not noticed, this results in an irregular mesh structure, which
25 must also be prevented.

The US 2,133,431 also describes a knitting needle, here a round knitting needle with deformations on the heads. Thereby, the heads feature the form of a truncated cone with bent sides, whereby, in the direction towards the point, the radius of the truncated cone is greater than the radius of the truncated cone that points in the direction towards the needle. In order to ensure tight knitting and prevent loose meshes, this head should have a resistance for the formation of the mesh on the needle. However, hereby, the disadvantage is that the points of the needles are very pointed, which could result in injuries. Also - as already explained above - this can result in the yarns being pierced. Ergonomic and effortless knitting is also not possible with these needles and also the person knitting cannot produce loosely knitted knitwear, because the deformations at the points of the needles present a resistance and prevent this.

In the JP S62 182986 U, a round knitting needle is described which features a notch or bulge in the area of its points, so that the yarn can be better captured by the needle when knitting. Nevertheless, even with this round knitting needle, there is the danger that a person can injure themselves on the points of the needle or, whilst knitting, in particular if using a thick yarn, the yarn can be pierced by the point of the needle.

Thus, the purpose of the invention is to improve a known knitting needle and, thereby, to reduce the risk of injury and the danger of piercing the yarn, as well as to enable ergonomic knitting with less amplitude in the movement of the operators wrist. Furthermore, it is the purpose of the invention to develop an improved cost-effective process of manufacture, in order to produce a round knitting needle in accordance with the invention. These purposes are solved by the designated characteristics of claims 1 and 12, with the following specific significance.

The point of the knitting needle is very rounded and features a rounded bulge in the direction towards the point, which one can describe as in the form of a drop or bobble, namely a return drop. This features a smaller diameter than the shaft. The knitting needle is tapered between the shaft and the return drop. Thereby, the transition between the shaft and the taper and between the taper and the

return drop has no edges and is formed with low frictional resistance. Due to the formation of the return drop, as well as the taper with low frictional resistance and with no edges, the knitting yarn can nevertheless glide well over the point of the needle during the knitting process and the return drop does not form an
5 obstacle when knitting, so that the knitting yarn cannot become entangled. Thereby, because the return drop features a smaller diameter than the shaft, the needle is also sufficiently easy to handle in order to attain good knitting results when using thin knitting yarn. Nevertheless, whilst knitting, the return drop assists in accepting the next mesh from the yarn. Due to the heavily rounded
10 form of the return drop, the risk of injury is also significantly reduced, as well as the danger of the point of the knitting needle piercing the yarn during the knitting process. Thus, good knitting results can be achieved also with a thicker yarn. Due to the interaction of the shaft, grip zone and return drop, particularly ergonomic and effortless knitting is possible, because the amplitude of the
15 operator's wrist subjected to during the knitting process is significantly less than during present knitting needles.

Especially the ratio of the diameter of the shaft of the knitting needle to the diameter of the return drop is aligned to one another and - aligned to the thickness of the knitting needle - is determined, so that a very effortless knitting
20 process is possible. Hereby, the ratio of the diameter is approx. 25% to 75%, preferably by 30% to 60%. Depending on the thickness of the knitting needle the ratio can vary, in order to enable the best possible ergonomic knitting process. Thereby, the ratio of the diameter is normally reduced as the thickness of the knitting needle increases, e.g. at approx. 55% for a needle thickness of 2.5, 3 or
25 3.5 to approx. 31% at a needle thickness of 12. These are explicitly only, individual examples. The ratios of the diameter can also be otherwise acquired in the context of the revelation.

In a particularly preferred example of design, the shaft has a transition in form along its length, emanating from the point of the needle. This transition in form
30 is implemented behind the grip zone and features the approximate form of a triangle in cross-section. The triangular area evolved, makes sure that very little friction occurs between the meshes of the knitwear and the knitting needle,

because the knitwear only touches the needle in the area of the corners of the triangle. Hereby, the knitwear glides better on the knitting needle, which makes the knitting process itself more ergonomic, so that the person knitting tires less quickly. Especially with wide knitwear, this must also not be constantly pushed
5 to the rear of the knitting needle. Thereby, the transition in form is also attained with no edges and with low frictional resistance. The best results with regard to the low frictional resistance, as well as the resulting feel, are attained when the cross-section of the triangular area features rounded corners or convexly formed sides. Both of these characteristics can also be combined in order to obtain a
10 knitting needle which, at the transition of form from the grip zone to the triangular area, is formed very smooth and with low frictional resistance and, whereby, the triangular area is formed, so that the knitting yarn or knitwear is not damaged and also features a pleasant feel.

The shaft of the knitting needle, as well as the point of the needle and the return
15 drop can, at least partly, comprise of a hard synthetic material. Hereby, the knitting needle is light and lays nicely in the hand.

In a preferred design example, the knitting needle is formed as a round knitting needle. Thereby, round knitting needles can be versatilely applied for the manufacture of various knitwear. A preferred form of design for the round
20 knitting needle is that it is narrower behind the grip area, in the direction towards the thin rope. Also here, the frictional resistance between the knitting needle and the knitwear is reduced and the knitwear can glide better in the direction towards the thin rope.

It is particularly beneficial if the transition to the thin rope at the end area of the
25 shaft is designed to be flexible. Hereby, the knitwear can slide particularly easy on the thin rope without the person knitting having to push the knitwear in this direction. The knitwear can also not get caught at the transition to the thin rope. Mechanical damage to the thin rope is also prevented.

A design option to make the end area of the shaft at the transition to the thin
30 rope flexible, is to manufacture this end area from a soft, flexible synthetic material. Hereby, the result is also the flexible transition to the thin rope.

However, depending on the thickness of the needle, the material of the end area can also be designed with a lesser wall thickness which, hereby, the elastic characteristics of the material of the shaft can be utilized and, thus, a more flexible transition at the end area of the thin rope is attained. In this case, the end area of the shaft can comprise of the same material as the complete knitting needle, for example, from a hard synthetic material.

Another preferred example of design envisages that the knitting needle is formed as a cardigan knitting needle. At the averted end of the point of the needle, the cardigan knitting needle then features a spherical head. This spherical head prevents the knitwear from being pushed over the end of the knitting needles and, thus, meshes are lost. Furthermore, the spherical head can also feature a trough-shaped recess, which has approximately the same diameter as the shaft or the grip area of the knitting needle itself. The second knitting needle can then be inserted and clamped into this recess with its shaft or its grip area. Thus, the particular preference is both knitting needles with their respective shaft or their respective grip area clamped in the trough-shaped recess of the spherical head of the other knitting needle. Thus, the knitting needles can be safely kept. Knitwear on one of the knitting needles cannot go astray from this, because the greater part of the shaft is confined by both spherical heads. If the knitting needles are not in use, they can also engage in the trough-shaped recess of the spherical head of the other needle, so that both knitting needles can always be found together when they are required. Thereby, the spherical head can be formed differently, for example, in the form of a sphere, a prism, a cube, a cuboid, a cone, a pyramid etc. Here, all possible forms are conceivable.

Furthermore, the invention includes a method for the manufacture of a round knitting needle. Thereby, in order to connect the shaft to the thin rope, the thin rope is encased by the shaft material. The material of the shaft is preferably a synthetic material that is processed using a conventional injection moulding process. Should the round knitting needle have an area comprising of a hard synthetic material and an area comprising of a soft synthetic material, it is expedient to initially encase the thin rope with the hard synthetic material of the shaft, at least partially and, subsequently, encase with the soft synthetic material.

Hereby, secure retention of the thin rope in the synthetic material can be attained. Hereby, the particular preference is to form an external contour from the hard material, in particular a pine tree grid. When encasing the pine tree grid, or any other contour using the soft synthetic material, especially good adhesion
5 is then provided between the two different synthetic materials.

In order to attain secure encasing of the thin rope during the injection process, it is advantageous to retain the thin rope with one or more, in particular, from three support cores. If the shaft is to be made from only one material, the support cores are retracted during the injection process, so that a smooth surface forms
10 with no gaps in the end area. In the event of a two-stage injection process, the support cores can retain the thin rope during the initial step of the process and then retracted subsequently. If the thin rope is then encased by the soft component, the apertures resulting from the support cores can then be covered by the soft synthetic material.

15 Other advantages and design examples result from the following description, the subclaims, as well as the drawings. The figures present the invention in several examples of design. Examples shown:

Fig. 1: A design form of the knitting needle as a sock knitting needle in accordance with the invention,

20 Fig. 2: An enlarged section from Fig. 1,

Fig. 3: A design form of the knitting needle as a round knitting needle in accordance with the invention,

Fig. 4: The round knitting needle from Fig. 3, presented enlarged,

Fig. 5: The end area of the round knitting needle from Fig 3 and 4,

25 Fig. 6: Schematic presentation of the attachment of the thin rope in the end area, round knitting needle in accordance with Fig. 3 to 5,

- Fig. 7a: Presentation of the retainer for the thin rope using support cores before the injection process for the manufacture of a round knitting needle in accordance with Fig. 3 to 6,
- Fig. 7b: Presentation in accordance with Fig. 7a after the injection process,
- 5 Fig. 8: Another form of design of a round knitting needle in accordance with the invention,
- Fig. 9: Presentation of the end area from Fig. 8,
- Fig. 10: Schematic presentation of the run of the thin rope in the end area of the round knitting needle from Fig. 8 and 9,
- 10 Fig. 11: The thin rope with the round knitting needle from Fig. 8 to 10, after the injection moulding process with the harder synthetic material,
- Fig. 12: Schematic presentation of the encasement of a partial area from Fig. 11, using a soft synthetic material,
- Fig. 13a: Retainer of the thin rope by support cores directly after the initial
15 injection moulding process using a hard synthetic material, for the manufacture of a round knitting needle in accordance with Fig. 8 to 12,
- Fig. 13b: Finished round knitting needle, manufactured from two components in accordance with Fig. 13a without support cores,
- 20 Fig. 14: Enlargement of the transition in form to the triangular area,
- Fig. 15: Section through the presentation in Fig. 14, at the position XV-XV,
- Fig. 16: Presentation of a cardigan knitting needle in accordance with the invention,
- Fig. 17: Enlarged presentation of the spherical head,

Fig. 18: Perspective presentation of clamping the knitting needle in the recess on the spherical head of the other knitting needle,

Fig. 19: The pair of knitting needles from Fig. 18, front view.

From Fig. 1, a knitting needle 10 in accordance with the invention is shown,
 5 designed here as a sock knitting needle. This is constructed symmetrically and features two points on the needle 11. On the respective points of the needles 11 a heavily rounded return drop 20 is arranged and the points of the needles 11 are connected together by the shaft 12. In the area of the shaft 12 facing towards the respective point of the needle 11, a grip area 13 is provided which can be held by
 10 an operator during the knitting process. There is a taper 14 between the respective grip area 13 and the return drop 20. Thereby, the transition between the return drop 20 of the taper 14 and the grip area 13 is formed with no seam and features a low frictional resistance.

Furthermore, one can determine the triangular area 30, whereby, a form
 15 transition 16 takes place between the grip area 13 and the triangular area 30. This form transition is also formed with the lowest possible frictional resistance. Hereby, the knitwear can glide easier on the knitting needle and the person knitting must not continuously manually push the knitwear further to the rear. Hereby, knitting is more pleasant and quicker.

20 The point of the needle 11 is shown enlarged in Fig. 2. Here, the heavily rounded return drop 20, formed as a drop or bobble, as well as the taper 14 can be seen. Also apparent is the smooth transition between the return drop 20 and grip area 13 of the shaft 12, on which no edges are provided and which features a low frictional resistance, so that the meshes can easily glide over the knitting needle.
 25 Thereby, the return drop 20 should assist the operator to capture the yarn more easily, in order to produce a new mesh. Thereby, the return drop 20, the shaft 12 and the grip area 13 are aligned with one another so that it provides particularly ergonomic and effortless knitting for the operator.

The grip area 13 is formed slightly conical in order to feature a pleasant feel
 30 when it is gripped by an operator. There are also no edges between the grip area

13 and the rest of the shaft 12 and, here, the transition is also designed so that the knitting needle 10 in general features a low frictional resistance and can be easily gripped by the operator.

In Fig. 3 and 4, the knitting needle 10 is formed as a round knitting needle 40. Also here, the return drop 20 on the point of the needle 11 can again be seen. The taper 14 between the grip zone 13 and point of the needle 11 can also be seen. Both shafts 12 of the round knitting needle 40 are connected by a thin rope 41. Here, only one needle and one shaft 12 is presented.

This particular round knitting needle 40 presented here is a knitting needle 10 with a very small thickness. Thus, no form transition 16 is provided and, thus, also no triangular area 30. From the presentation in Fig. 4 with dotted lines, which is virtually the external contours of the shaft 12, including the end area 42 and the thin rope 41 presented widened, it can be seen that the complete shaft 12 gets narrower towards the thin rope 41. Hereby, this round knitting needle 40 also features a low frictional resistance, which is otherwise attained by a triangular area 30. Thus, the manufacture of this form of thin round knitting needles 40 is also cost-effective, whilst the introduction of a triangular area 30 with this form of thin needles is more difficult and could be more expensive.

The thin rope 41 is inserted into the end area 41 of the round knitting needle 40, whereby, the round knitting needle 40 here is produced from a hard synthetic material. Thereby, the thin rope 41 has been encased by this material during the manufacturing process, as will also be shown later. Due to the low wall thickness, the end area 42 of the round knitting needle 40 is formed to be flexible and elastic, although it is made from the same hard synthetic material as the rest of the shaft 12. Fig. 6 shows how the thin rope 41 is inserted into the end area 42 of the shaft 12, whereby, the part of the thin rope 41 which is located in the end area 42, is indicated dotted here.

Parts of the manufacturing process of the round knitting needle 40 presented in Fig. 3 to 6 are shown in Fig. 7a and 7b. In Fig. 7a, the thin rope 41 is positioned by three support cores 60. The injection moulding process of the synthetic material is carried out subsequently, in which the thin rope 41 is encased by the

material of the end area 42, here, by a hard synthetic material. After the injection process, the support cores 60 rest flush with the surface of the end area 42. Thereby, there are no gaps visible in the end area 42 of the round knitting needle 40 and a pleasing, optical overall image is visible.

- 5 An alternative for a round knitting needle 40 is shown in Fig. 8. This round knitting needle 40 is thicker than that shown in Fig. 3 to 7b. Here, the thickness is 5 mm. This is, of course, only to be regarded as an example. The invention includes round knitting needles 40 of various diameters and thicknesses.

- Also here, a return drop 20 is provided at the point of the needle 11, whereby, a
10 taper 14 is present at the grip area 13 of the shaft 12. However, this round knitting needle 40 features a form transition 16 to a triangular area 30. Hereby, this again results in the already known advantages of the low frictional resistance of the round knitting needle 40. Here, the triangular area 30 is provided with a pattern, which induces a beautiful, overall optical impression.

- 15 As also seen from the enlargement in Fig. 9, the end area 42 is formed with a taper and features the thin rope 41. In order to also provide the round knitting needle 40 a flexible and elastic end area 42 for larger thicknesses of round knitting needle 40, this end area 42 comprises of a soft synthetic material 44. The internal structure of the end area 42 of this round knitting needle 40 differs
20 from the round knitting needle 40, which was shown in the Fig. 3 to 7b. Here, the shaft 12 of the round knitting needle 40 also comprises of a hard synthetic material. However, a part of the end area 42 is made from a soft synthetic material 44. The thin rope 41 is also encased here by material of the end area 42 during the manufacturing process. However, in order to ensure that the soft
25 synthetic material 44 adheres well to the hard synthetic material, during the injection procedure, the hard synthetic material is produced with an external contour. Particularly advantageous is the pine tree grid 43 shown here, which can be easily seen from the Fig. 11 and 12. During the second manufacturing step, namely encasing using the soft synthetic material 44, this pine tree grid 43
30 is covered. Hereby, both synthetic materials can be selected so that, during encasing, the hard synthetic material slightly fuses with the soft synthetic

material 44 on the surface and, thereby, blends better with the soft synthetic material 44. The soft synthetic material 44 extends towards the thin rope 41, beyond the pine tree grid 43. Due to this pine tree grid 43, the soft synthetic material 44 is additionally retained in position and cannot slip towards the thin rope 41. Thus, a flexible and elastic end area 42 of the round knitting needle 40 is created which, also for larger diameters of the round knitting needle 40, features good flexibility.

Parts of the manufacturing process for this round knitting needle 40 are shown in Fig. 13a and 13b. The thin rope 41 is retained in its position by three support cores 60 and initially encased with the hard synthetic material. Subsequently, the support cores 60 are removed and a second injection process follows with the soft synthetic material 44. Thus, the areas in which the support cores 60 were attached to the thin rope 41 are filled by the soft synthetic material 44 and the result is an overall, optical, unified image of the round knitting needle 40.

The Fig. 14 and 15 now show the form transition 16 from the round shaft 12 to the triangular area 30. Thereby, Fig. 15 shows a cross-section through this triangular area 30. It can be clearly seen here that the corners 31 of the triangular area 30 are rounded, whilst the sides 32 are formed convex. Hereby, particularly good form transition 16 is possible with low frictional resistance and the knitwear in the triangular area 30 only virtually glides over the rounded corners 31. Hereby, the frictional resistance in the triangular area 30 is further reduced, so that the knitwear can glide very easily along the length 15 of the knitting needle 10.

The Fig. 16 to 19 show a knitting needle 10 in accordance with the invention formed as a cardigan knitting needle 50. A return drop 20 is also provided here on the point of the needle 11 and a triangular area 30 on the shaft 12. A spherical head 51 is provided on the averted end 17 of the point of the needle 11 of the knitting needle 10. The spherical head 51 features a trough-shaped recess 52, which is of approximately the same width as the shaft 12 of the cardigan knitting needle 50. In order to connect together two knitting needles 10 of a pair of cardigan knitting needles 50, the shaft 12 of the second cardigan knitting needle

50 can then be inserted into this trough-shaped recess 52 and clamped. Here, both cardigan knitting needles 50, with their shaft 12, can be inserted into the trough-shaped recess 52 of the other respective knitting needle 50 and clamped. The knitwear is then located between both clamping areas of the spherical heads 51 and, thus, also cannot inadvertently slide off the cardigan knitting needle 50. Thus, furthermore, both cardigan knitting needles 50 are also always a pair of cardigan knitting needles 50 together and tedious searching for the second appropriate cardigan knitting needle 50 is eliminated.

Finally, it should be noted that the forms of design presented here are only examples of implementations of the invention. The invention can be utilized for all possible types of knitting needles, thus, for cardigan knitting needles, round knitting needles and sock knitting needles, in a so-called needle set. The knitting needles can also comprise of the most diverse materials and different colours - for example, to also differentiate between the different thicknesses - complete or partially.

Reference sign list:

	10	Knitting needle
	11	Point of needle
	12	Shaft
5	13	Grip area
	14	Taper
	15	Length of 10
	16	Form transition
	17	11 averted end of 10
10	20	Return drop
	30	Triangular area
	31	Corner of 30
	32	Side of 30
	40	Round knitting needle
15	41	Thin rope
	42	End area
	43	Pine tree grid
	50	Cardigan knitting needle
	51	Spherical head
20	52	Trough-shaped recess
	60	Supporting core

P a t e n t k r a v

1. Strikkepind (10), med mindst en pindspids (11) og et skaft (12), hvorpå strik-
varen kan anbringes i det mindste områdevist,
med et gribeområde (13), der er anbragt på skaftet (12) i nærheden af pind-
spidsen (11) og har et rundt tværsnit, hvor gribeområdet (13), der befinder sig
5 mellem skaftet (12) og pindspidsen (11), er udformet ergonomisk på en sådan
måde, at det kan gribes af en bruger, når der strikkes, hvor pindspidsen (11)
selv går over i en dråbe- eller bobleformet fortykning, tilbageholdelsesdråben
(20), der er afrundet hen mod spidsen, og som har en betydeligt mindre dia-
10 meter end skaftet (12),
og hvor strikkepinden (10) tilspidser langs sin længde (15) fra skaftet (12) i
retning af pindspidsen (11),
kendetegnet ved,
at pindspidsen (11) selv er udformet kraftigt afrundet,
15 **at** gribeområdet (13) tilspidser (14) i retning af pindspidsen (11)
og **at** overgangen mellem skaftet (12) og denne tilspidsning (14) og mellem
skaftets (12) tilspidsning (14) og tilbageholdelsesdråben (20) er udformet uden
kanter og med mindre friktionsmodstand.
- 20 2. Strikkepind (10) ifølge krav 1, **kendetegnet ved, at** forholdet mellem tilba-
geholdelsesdråbens (20) diameter og strikkepindens (10) skafts (12) diameter
er afhængig af tykkelsen på strikkepindens (10) skaft (12) og udgør 25% til
75%.
- 25 3. Strikkepind (10) ifølge et af kravene 1 eller 2, **kendetegnet ved, at** skaftet
(12) langs sin længde (15) set fra pindspidsen (11) bag gribeområdet (13) har
en formovergang (16) og der i tværsnit ca. har form som en trekant (trekants-
område 30).
- 30 4. Strikkepind (10) ifølge krav 3, **kendetegnet ved, at** skaftets (12) trekants-
område (30) i tværsnit har afrundede hjørner (31) og/eller konvekst udformede
sider (32).
- 35 5. Strikkepind (10) ifølge et af kravene 3 eller 4, **kendetegnet ved, at** form-
overgangen (16) mellem det runde skaft (12) og trekantsområdet (30) forløber

gradvist og med lille friktionsmodstand.

6. Strikkepind (10) ifølge et af kravene 1 til 5, **kendetegnet ved, at** skaftet (12) i det mindste områdevist består af hårdt kunststof.

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7. Strikkepind (10) ifølge et af kravene 1 til 6, **kendetegnet ved, at** strikkepinden (10) er udformet som rundstrikkepind (40), hvor skaftet (12) er forbundet med et lille kabel (41) og bliver smallere bag gribeområdet (13) i det lille kables (41) langsgående retning (15).

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8. Strikkepind (10) ifølge et af kravene 1 til 7, **kendetegnet ved, at** strikkepinden (10) er udformet som rundstrikkepind (40), hvor skaftets (12) endeområde (42) er udformet fleksibelt og bøjeligt ved overgangen til det lille kabel (41).

15

9. Strikkepind (10) ifølge krav 8, **kendetegnet ved, at** strikkepinden (10) er udformet som rundstrikkepind (40), hvor skaftet (12) i sit endeområde (42) ved overgangen til det lille kabel (41) består af blødt og/eller fleksibelt kunststof.

20

10. Strikkepind (10) ifølge et af kravene 1 til 6, **kendetegnet ved, at** strikkepinden (10) er udformet som sweaterstrikkepind (50) og i den ende (17), der vender væk fra pindspidsen (11), har et kuglehoved (51).

25

11. Strikkepind (10) ifølge krav 10, **kendetegnet ved, at** kuglehovedet (51) har en rendeformet udsparring (52), der ca. har den samme diameter som skaftet (12) eller gribeområdet (13) af strikkepinden (10), og som den anden strikkepind (10) kan indføres klemmende i med sit skaft (12) eller sit gribeområde (13).

30

12. Fremgangsmåde til fremstilling af en strikkepind (10) ifølge et af kravene 7-9 med mindst en pindspids (11) og et skaft (12), hvorpå strikvaren i det mindste områdevist kan anbringes,

35

med et gribeområde (13), der er anbragt på skaftet (12) i nærheden af pindspidsen (11) og har et rundt tværsnit, hvor gribeområdet (13), der befinder sig mellem skaftet (12) og pindspidsen (11), er udformet ergonomisk på en sådan måde, at det kan gribes af en bruger, når der strikkes, hvor pindspidsen (11) selv går over i en dråbe- eller bobleformet fortykning, tilbageholdelsesdråben

(20), der er afrundet hen mod spidsen, og som har en betydeligt mindre diameter end skaftet (12),

og hvor strikkepinden (10) tilspidser langs sin længde (15) fra skaftet (12) i retning af pindspidsen (11),

5 **kendetegnet ved,**

at pindspidsen (11) selv er udformet kraftigt afrundet,

at gribeområdet (13) tilspidser (14) i retning af pindspidsen (11),

at overgangen mellem skaftet (12) og denne tilspidsning (14) og mellem skaftets (12) tilspidsning (14) og tilbageholdelsesdråben (20) er udformet uden

10 kanter og med mindre friktionsmodstand

at strikkepinden (10) er udformet som rundstrikkepind (40), hvor skaftet (12) er forbundet med et lille kabel (41),

og hvor det lille kabel (41) ved fremstilling af rundstrikkepinden (40) oversprøjtes med skaftets (12) materiale.

15

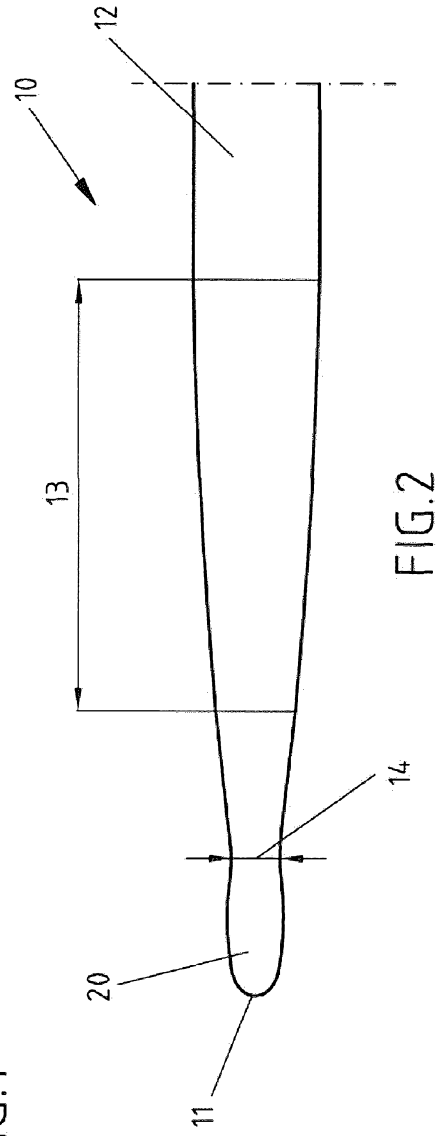
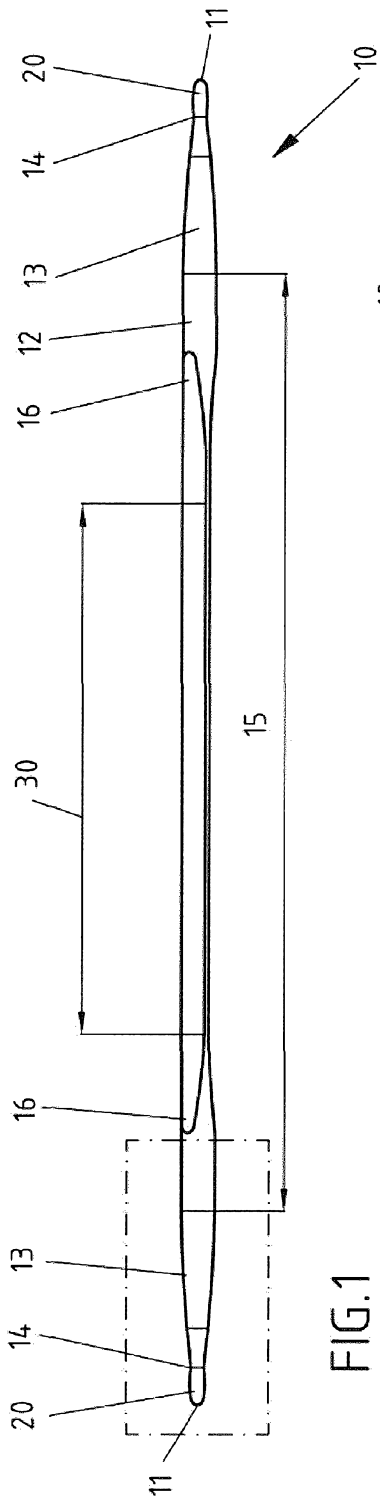
13. Fremgangsmåde ifølge krav 12, **kendetegnet ved, at** det lille kabel (41) først oversprøjtes områdevist af et hårdere kunststof af skaftet (12) og derefter af et blødt kunststof.

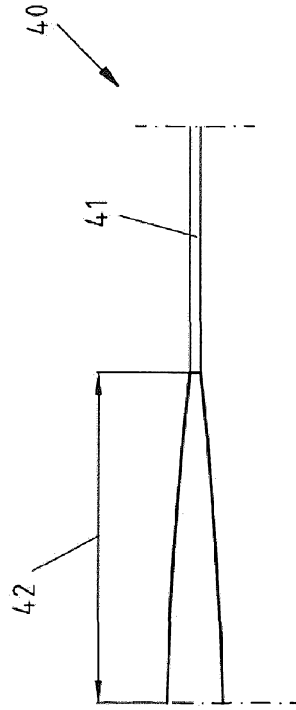
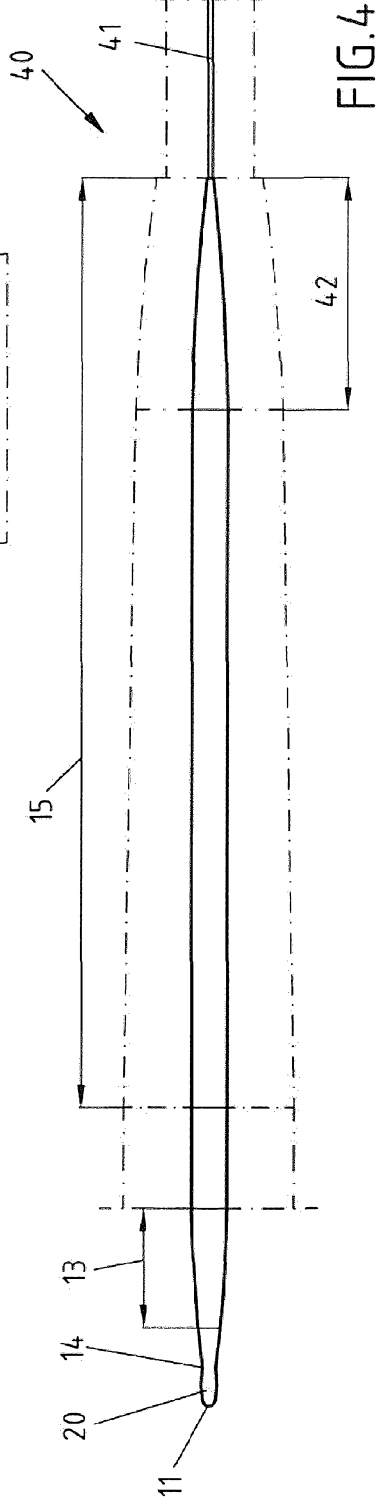
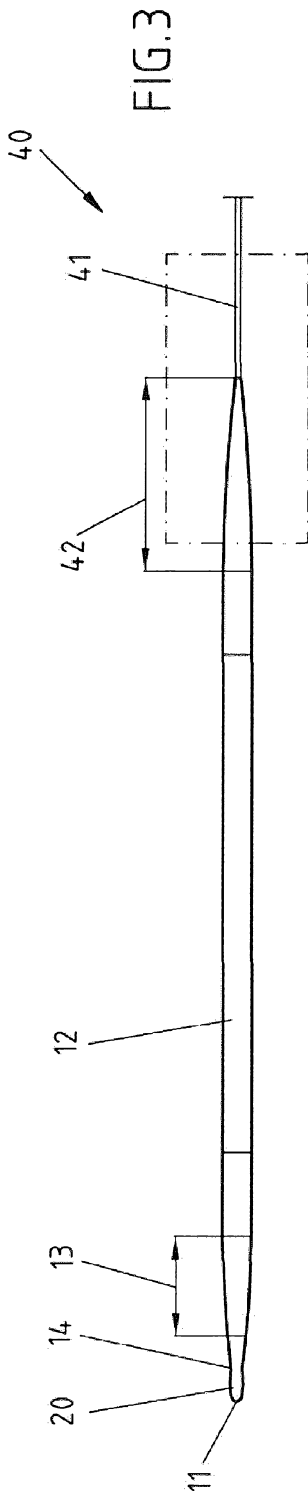
20

14. Fremgangsmåde ifølge krav 13, **kendetegnet ved, at** der ved oversprøjtning af det lille kabel (41) formes en ydre kontur, især et juletræsrastrer (43), af det hårdere materiale.

25

15. Fremgangsmåde ifølge et af kravene 12 til 14, **kendetegnet ved, at** det lille kabel (41) holdes af en eller flere holdekerner (60) under sprøjtningen.





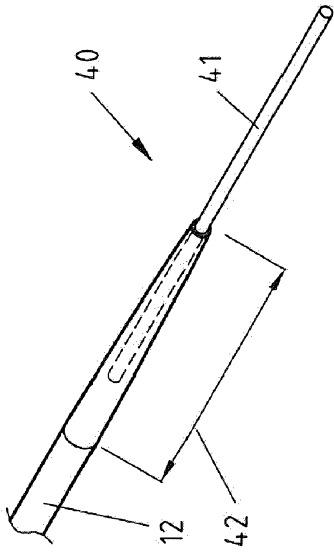


FIG. 6

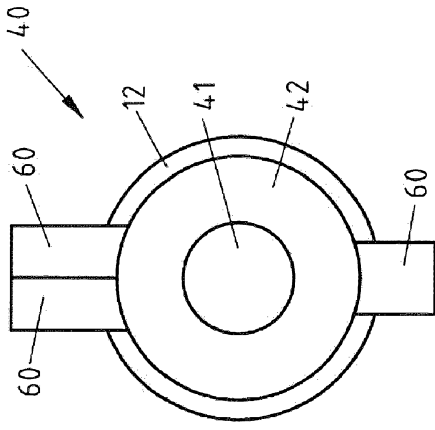


FIG. 7 b

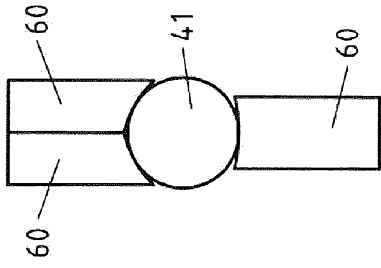


FIG. 7 a

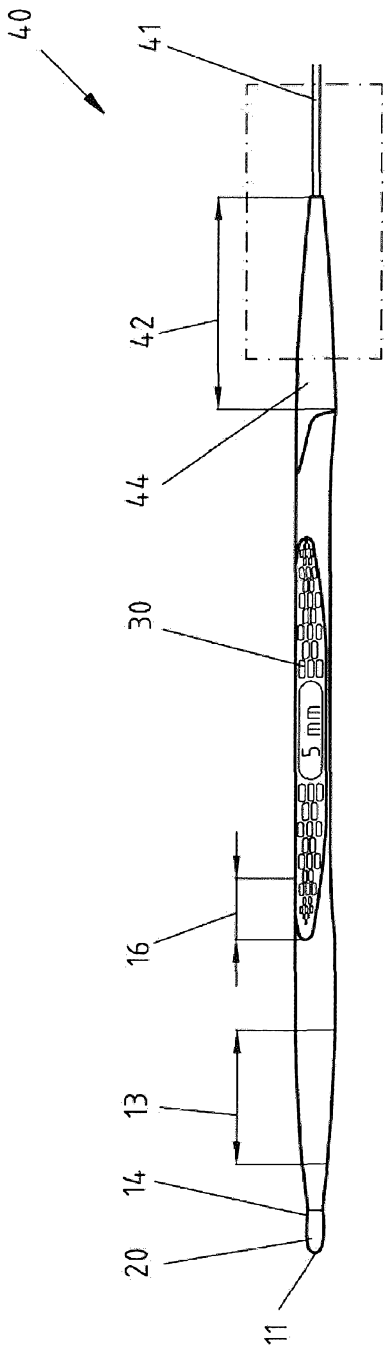


FIG. 8

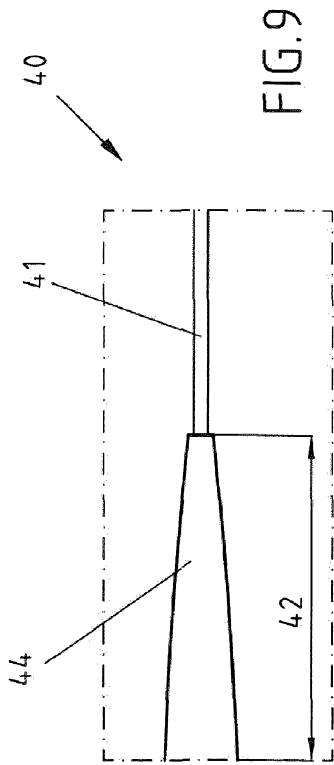


FIG. 9

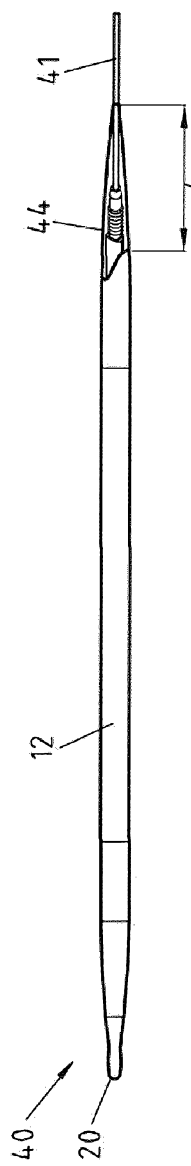


FIG. 10

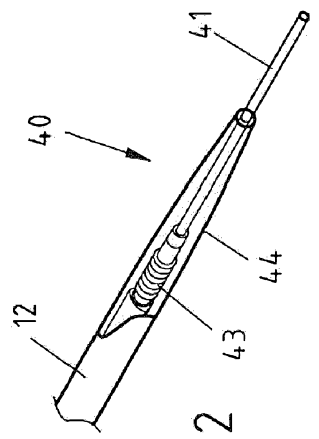


FIG. 12

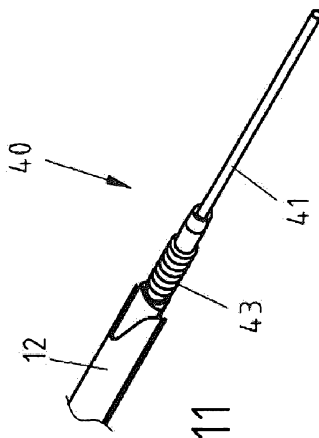


FIG. 11

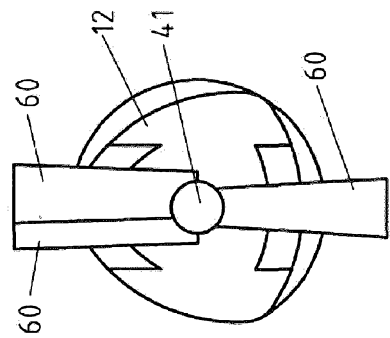


FIG. 13a

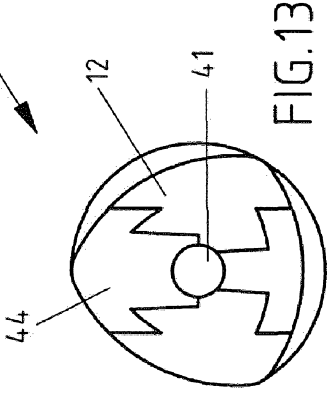


FIG. 13b

