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(71) Applicant: **Welltec A/S**
3450 Allerød (DK)

(72) Inventor: **HAZEL, Paul**
Aberdeen, AB41/7JQ (GB)

(74) Representative: **Hoffmann Dragsted A/S**
Rådhuspladsen 16
1550 Copenhagen V (DK)

(54) **REDRESSING METHOD AND REDRESSED COMPLETION SYSTEM**

(57) The present invention relates to a redressing method for arranging an inner production casing within an existing production casing in order to re-establish production of hydrocarbon-containing fluid in a malfunctioning well having a top part, the existing production casing having a first inner diameter and being arranged in a borehole, the redressing method comprising the steps of determining a first inflow section of the existing production casing opposite a first production zone, providing the inner production casing having an inner diameter which is substantially the same along an extension of the inner production casing, the inner production casing comprising a first annular barrier and a second annular barrier having a distance between them, each annular barrier comprising a tubular metal part for mounting as part of the inner production casing, an expandable metal sleeve surrounding the tubular metal part and having an inner face facing the tubular metal part and an outer face facing an inner wall of the existing production casing, each end of the expandable metal sleeve being connected with the tubular metal part, and an annular space between the inner face of the expandable metal sleeve and the tubular metal part, the inner production casing having an outer unexpanded diameter which is smaller than the first inner diameter of the existing production casing, redressing the existing production casing by introducing the inner production casing into the existing production casing, arranging the first annular barrier on one side of the first inflow section and the second annular barrier on the other side of the inflow section, encapsulating the first inflow section of the existing production casing by expanding the expandable metal sleeves of the first annular barrier and the second annular barrier, isolating the first inflow section, anchoring the inner production casing in the top part of the well, providing a first inflow section in the inner

production casing opposite the first inflow section of the existing production casing, and initiating production of hydrocarbon-containing fluid through the inner production casing. Furthermore, the present invention relates to a redressed completion system for re-establishing production of hydrocarbon-containing fluid in a malfunctioning well.

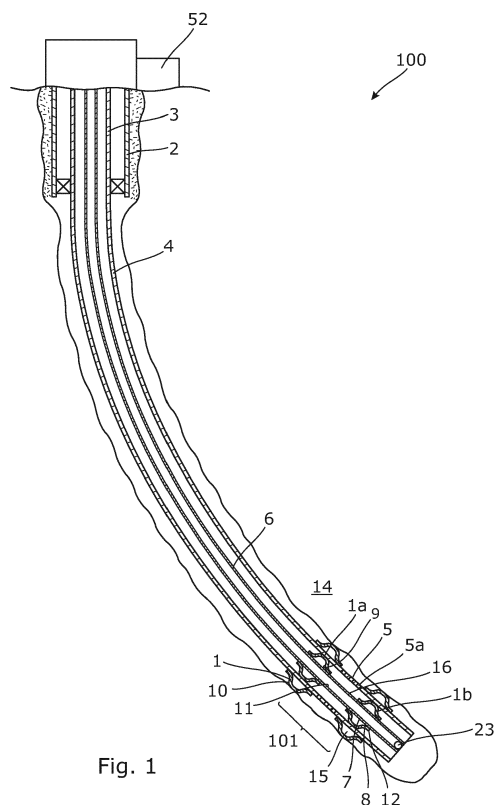


Fig. 1

Description

Field of the invention

[0001] The present invention relates to a redressing method for arranging an inner production casing within an existing production casing in order to re-establish production of hydrocarbon-containing fluid in a malfunctioning well. Furthermore, the present invention relates to a redressed completion system for reestablishing production of hydrocarbon-containing fluid in a malfunctioning well.

Background art

[0002] In existing wells screens may be abraded to such an extent that the well produces too much sand, gravel etc. Then that part of the well is closed or the well fully abandoned.

Summary of the invention

[0003] It is an object of the present invention to wholly or partly overcome the above disadvantages and drawbacks of the prior art. More specifically, it is an object to provide an improved completion system in which abandonment of at least part of the well having worn out or abraded screens are avoided.

[0004] The above objects, together with numerous other objects, advantages and features, which will become evident from the below description, are accomplished by a solution in accordance with the present invention by a redressing method for arranging an inner production casing within an existing production casing in order to re-establish production of hydrocarbon-containing fluid in a malfunctioning well having a top part, the existing production casing having a first inner diameter and being arranged in a borehole, the redressing method comprising the steps of:

- determining a first inflow section of the existing production casing opposite a first production zone,
- providing the inner production casing having an inner diameter which is substantially the same along an extension of the inner production casing, the inner production casing comprising a first annular barrier and a second annular barrier having a distance between them, each annular barrier comprising:
- a tubular metal part for mounting as part of the inner production casing,
- an expandable metal sleeve surrounding the tubular metal part and having an inner face facing the tubular metal part and an outer face facing an inner wall of the existing production casing, each end of the expandable metal sleeve being connected with the tubular metal part, and
- an annular space between the inner face of the ex-

pandable metal sleeve and the tubular metal part,

the inner production casing having an outer unexpanded diameter which is smaller than the first inner diameter of the existing production casing,

- redressing the existing production casing by introducing the inner production casing into the existing production casing,
- arranging the first annular barrier on one side of the first inflow section and the second annular barrier on the other side of the inflow section,
- encapsulating the first inflow section of the existing production casing by expanding the expandable metal sleeves of the first annular barrier and the second annular barrier, isolating the first inflow section, anchoring the inner production casing in the top part of the well,
- providing a first inflow section in the inner production casing opposite the first inflow section of the existing production casing, and
- initiating production of hydrocarbon-containing fluid through the inner production casing.

[0005] The redressing method as described above may comprise the step of reducing a hydrostatic pressure of the well by the step of redressing the existing production casing by means of the inner production casing.

[0006] Further, the redressing method as described above may comprise the steps of determining a second inflow section of the existing production casing opposite a second production zone, wherein the step of providing an inner production casing may further comprise providing a third annular barrier, and arranging the second annular barrier on one side of the second inflow section and the third annular barrier on the other side of the second inflow section of the existing production casing.

[0007] Also, the redressing method as described above may comprise the steps of determining a third inflow section of the existing production casing opposite a third production zone, wherein the step of providing an inner production casing may further comprise providing a fourth annular barrier, and arranging the third annular barrier on one side of the third inflow section and the fourth annular barrier on the other side of the third inflow section of the existing production casing.

[0008] Moreover, the inner production casing may extend to the top of the well.

[0009] Furthermore, the inner production casing may overlap most of the existing production casing.

[0010] The step of anchoring the inner production casing at the top part of the well may comprise the step of providing the inner production casing with an anchoring annular barrier.

[0011] The redressing method according to the present invention may comprise the step of arranging a screen opposite the first inflow section of the inner production casing.

[0012] Additionally, the expandable metal sleeves may be expanded by introducing pressurised fluid into the annular space via the inner production casing.

[0013] Further, the redressing method as described above may comprise a step of closing the inner production casing before the step of expanding the expandable metal sleeves of the annular barriers.

[0014] The step of determining may be performed by means of a detecting unit in a downhole tool or in the inner production casing.

[0015] Also, the step of determining may be performed by consulting a completion diagram of the existing production casing.

[0016] The present invention also relates to a redressed completion system for reestablishing production of hydrocarbon-containing fluid in a malfunctioning well having a top part, comprising:

- an existing production casing arranged in the well and having a first inflow section opposite a first production zone,
- an inner production casing comprising a first annular barrier and a second annular barrier having a distance between them, each annular barrier comprising:
- a tubular metal part for mounting as part of the inner production casing,
- an expandable metal sleeve surrounding the tubular metal part and having an inner face facing the tubular metal part and an outer face facing an inner wall of the existing production casing, each end of the expandable metal sleeve being connected with the tubular metal part, and
- an annular space between the inner face of the expandable metal sleeve and the tubular metal part,

wherein the inner production casing comprises a first inner inflow section arranged between the first annular barrier and the second annular barrier, the inner production casing extending inside the existing production casing, and the first annular barrier is expanded on one side of the first inflow section and the second annular barrier is expanded on the other side of the first inflow section of the existing production casing, isolating the first inflow section and leading the hydrocarbon-containing fluid from the first production zone into the inner production casing through the inflow sections.

[0017] The inner production casing may have an unexpanded outer diameter which is smaller than a first inner diameter of the existing production casing, reducing the hydrostatic pressure of the well.

[0018] Also, the inner production casing may be anchored to the top part of the well.

[0019] Moreover, the inner production casing may extend to a top of the well.

[0020] Furthermore, the inner production casing may have an inner diameter which is substantially equal along the entire extension of the inner production casing.

[0021] Additionally, the existing production casing may have a second inflow section opposite a second production zone, and the inner production casing comprises a third annular barrier and a second inner inflow section arranged between the second annular barrier and the third annular barrier, the second annular barrier being expanded on one side of the second inflow section and the third annular barrier being expanded on the other side of the second inflow section of the existing production casing, isolating the second inflow section.

[0022] Further, the existing production casing may have a third inflow section opposite a third production zone, and the inner production casing may comprise a fourth annular barrier and a third inner inflow section arranged between the third annular barrier and the fourth annular barrier, the third annular barrier being expanded on one side of the third inflow section, and the fourth annular barrier being expanded on the other side of the third inflow section of the existing production casing, isolating the third inflow section.

[0023] The redressed completion system as described above may further comprise a detection tool configured to determine the inflow sections of the existing production casing.

[0024] Also, a screen may be arranged opposite the inflow sections of the existing production casing and/or the inner inflow sections of the inner production casing.

[0025] Furthermore, the inner production casing may have an inner diameter which is substantially equal along the entire extension of the inner production casing.

[0026] Moreover, the screen may be fluidly connected to the inflow sections.

[0027] The inflow section may comprise an inflow control device.

[0028] Further, a pump may be arranged at the top of the well.

[0029] Additionally, the system may comprise an expansion tool.

[0030] Also, the tubular metal part may comprise an expansion opening.

[0031] The annular space may comprise at least one thermally decomposable compound adapted to generate gas or super-critical fluid upon decomposition.

[0032] This compound may be thermally decomposable below a temperature of 400°C.

[0033] Said compound may comprise nitrogen, or comprise nitrogen in the form of ammonium, nitrite, azide or nitrate.

[0034] The compound may be selected from a group consisting of: ammonium dichromate, ammonium nitrate, ammonium nitrite, barium azide, sodium nitrate, or a combination thereof.

[0035] Also, the compound may decompose at temperatures above 100°C, preferably above 180°C.

[0036] Moreover, the inner production casing may comprise an anchoring annular barrier.

[0037] Furthermore, the inner production casing may comprise closing means for closing the inner production

casing before expansion.

[0038] In addition, the existing production casing may comprise annular barriers for isolating a production zone.

Brief description of the drawings

[0039] The invention and its many advantages will be described in more detail below with reference to the accompanying schematic drawings, which for the purpose of illustration show some non-limiting embodiments and in which

Fig. 1 shows a cross-sectional view of a redressed completion system according to the invention,

Fig. 2 shows a cross-sectional view of a redressed completion system having a detection tool submerged in the well,

Fig. 3 shows a cross-sectional view of an inner production casing being submerged into the well in its unexpanded condition,

Fig. 4 shows a cross-sectional view of the inner production casing in an expanded condition of the annular barriers,

Fig. 5 shows a cross-sectional view of the inner production casing being anchored to the top part of the well,

Fig. 6 shows a cross-sectional view of a redressed completion system having perforations,

Fig. 7 shows a cross-sectional view of a redressed completion system having a two-part existing production casing,

Fig. 8 shows a cross-sectional view of another redressed completion system,

Fig. 9 shows a cross-sectional view of another redressed completion system having screens, and

Fig. 10 shows a cross-sectional view of another redressed completion system having a sliding sleeve.

[0040] All the figures are highly schematic and not necessarily to scale, and they show only those parts which are necessary in order to elucidate the invention, other parts being omitted or merely suggested.

Detailed description of the invention

[0041] Fig. 1 shows a redressed completion system 100 for re-establishing production of hydrocarbon-containing fluid in a malfunctioning well 2. The redressed completion system comprises an existing production

casing 4 arranged in a borehole in the well. The existing production casing has a first inflow section 5, 5a opposite a first production zone 101 of a reservoir or formation 14. The redressed completion system 100 further comprises an inner production casing 6 having a first annular barrier 1, 1a and a second annular barrier 1, 1b having a distance between them. Each annular barrier comprises a tubular metal part 7 for mounting as part of the inner production casing 6, an expandable metal sleeve 8 surrounding the tubular metal part and having an inner face 9 facing the tubular metal part and an outer face 10 facing an inner wall 11 of the existing production casing. Each end of the expandable metal sleeve 12 is connected with the tubular metal part defining an annular space 15 between the inner face of the expandable metal sleeve and the tubular metal part. The inner production casing further comprises a first inner inflow section 16 arranged between the first and second annular barriers, the inner production casing extending inside the existing production casing. The first annular barrier 1a is expanded on one side of the first inflow section and the second annular barrier 1b is expanded on the other side of the first inflow section of the existing production casing, isolating the first inflow section and thereby leading the hydrocarbon-containing fluid from the first production zone 101 into the inner production casing through the inflow sections 5, 16. The inner production casing 6 has an unexpanded outer diameter D_{UO} (shown in Fig. 3) which is smaller than a first inner diameter D_1 (shown in Fig. 3) of the existing production casing 4, and when the annular barriers 1 are expanded, the inner diameter of the producing casing is substantially reduced, reducing the hydrostatic pressure of the well since the hydrocarbon-containing fluid from the reservoir 14 only has to displace a substantially smaller fluid column than in the existing production casing. When hydrocarbon-containing fluid has been produced for some time from a production zone, the pressure may drop in the reservoir or the screen through which the fluid enters may be worn out, and an excess amount of sand is produced along with the fluid. Then it is beneficial to insert an inner production casing 6 to reduce the inner diameter or to insert a new screen, so that the sand can no longer enter the production casing. In this way, the lifetime of the well is prolonged by redressing the redressed completion system 100 in an easy manner by encapsulating the inflow section of the existing production casing 4, so that the production fluid is led from the production zone 101 into the existing production casing 4 and further into the inner production casing 6 through the inflow sections 5, 16.

[0042] The completion system 100 is redressed by first determining the first inflow section of the existing production casing 4 opposite the first production zone 101, e.g. by a submerging a detection tool 50 into the existing production casing 4, as shown in Fig. 2. The inner production casing 6 having an inner diameter D_i (shown in Fig. 3) which is substantially the same along the whole extension of the inner production casing, is then provided, so that the hydrocarbon-containing fluid is able to flow in an

uninterrupted manner along the inner production casing 6. Then the existing production casing 4 is redressed by introducing the inner production casing 6 into the existing production casing, as shown in Fig. 3, which is possible due to the inner production casing having an outer un-expanded diameter which is smaller than the first inner diameter of the existing production casing. The first annular barrier 1, 1a is arranged on one side of the first inflow section and the second annular barrier on the other side of the inflow section, and the first inflow section of the existing production casing is encapsulated by expanding the expandable metal sleeves of the first and second annular barriers, isolating the first inflow section, as shown in Fig. 4. The annular barriers 1 may be expanded by pressurised fluid within the inner production casing 6 entering an expansion opening 22. Subsequently, the inner production casing is anchored in the top part 3 of the well 2, e.g. by expanding an anchoring annular barrier 1_{an} providing the first inflow section 16 in the inner production casing 6 opposite the first inflow section 5 of the existing production casing 4, as shown in Fig. 5. Then production of hydrocarbon-containing fluid through the inner production casing is initiated. The well may be self-producing when the completion is redressed or the inflow section of the inner production casing 6 may be activated, e.g. by opening a sliding sleeve so that the sliding sleeve 24 (shown in Fig. 10) does no longer block the inflow of fluid into the inner production casing 6.

[0043] The annular barriers 1 may be expanded by pressurised fluid inside the inner production casing 6. The inner production casing 6 may be pressurised by an expansion tool 53 (shown in Fig. 9) isolating a zone opposite the expansion opening 22, or the inner production casing 6 may be pressurised from the top by a pump 52, as shown in fig. 1. The inner production casing 6 is closed by a closing means 23, e.g. by dropping a closing means 23 in the form of a ball down the inner production casing 6 to close the end of the inner production casing 6, as shown in Figs. 1 and 4, and then the whole inner production casing 6 is pressurised, expanding all annular barriers 1 substantially simultaneously.

[0044] The existing production casing 4 may have annular barriers 1 for isolating the first production zone 101 as shown in Figs. 1-5. As shown in Fig. 6, the existing production casing 4 may also be a cemented casing where cement 55 is pumped into the annulus surrounding the existing production casing 4, and the production is thus established by perforating the existing production casing 4, the cement and the formation creating perforations 56. In Fig. 6, the inner production casing 6 extending all the way up to the top of the well is not suspended/hung off inside the existing production casing 4 but anchored in the well head, the "christmas tree" or the blowout preventer.

[0045] When determining the first inflow section, other inflow sections of the existing production casing 4 may be simultaneously determined or detected, such as determining a second inflow section 5b of the existing pro-

duction casing opposite a second production zone 102, e.g. by means of a detection unit 58 in the inner production casing 6 or the detection tool 50 (shown in Fig. 2). In the event that the existing production casing 4 comprises a second inflow section 5b, the inner production casing 6 further comprises providing a third annular barrier 1c and the second annular barrier 1b on one side of the second inflow section 16b and the third annular barrier 1c on the other side of the second inflow section of the existing production casing, as shown in Fig. 7. The redressed completion system 100 of Fig. 7 comprises an existing production casing 4 having several inflow sections and similarly the inner production casing 6 has at least the same number plus at least one of annular barriers 1 as the number of inflow sections of the existing production casing 4. The annular barriers 1 are arranged so that two-by-two they encapsulate one of the production zones 101, 102, 103, 104. The fourth production zone 104 is arranged closer to the top of the well than the third production zone and the second production zone 102. As can be seen in Fig. 7, the existing production casing 4 is shorter in length than the inner production casing 6, and the inner production casing overlaps most of the existing production casing. The inner production casing 6 thus extends further up the well towards the top of the well than the existing production casing 4, and the anchoring of the inner production casing 6 is performed in an upper casing 25 of the existing production casing 4. The redressing of the redressed completion system 100 thus eliminates the gap 26 between the upper casing 25 and the lower existing production casing 4, and there is therefore no longer a risk of any intervention tools getting stuck in the gap 26.

[0046] In Fig. 8, the existing production casing 4 comprises a worn out screen 20a where the openings 33 in the screen have become too large due to the sand abrading the material surrounding the openings 33 and the openings 34 in the casing 4, as shown in Fig. 9. Therefore, a screen 20 of the inner production casing 6 is arranged opposite the first inflow section 5a of the existing production casing. The screen 20 is fluidly connected to the inflow sections 5, 16. Thus, the completion is redressed by a not worn sleeve and the production can continue. As shown in fig. 9, the first and second annular barriers 1a, 1b are arranged offset in relation to the annular barriers 1 of the existing production casing 4; however still encapsulating the inflow section 5 of the existing production casing 4.

[0047] The second inflow section 5b of Fig. 8 is closed, so in Fig. 8 the inner production casing 6 does not overlap the whole existing production casing 4 covering also the second inflow section 5b.

[0048] In another embodiment, the redressed completion system 100 is redressed to decrease the hydrostatic pressure, and then no screens are used and the inner production casing 6 has annular barriers 1 encapsulating merely the production zone arranged closest the top of the well, and the inner production casing 6 does not over-

lap the remaining production zones closer to the bottom 57 (shown in Fig. 8) of the well. Thus, the inner production casing 6 may, in some embodiments, be longer than the existing production casing 4, and in other embodiments, shorter than the existing production casing 4.

[0049] The inflow section 5, 16 may comprise an inflow control device 38 as shown in Fig. 1.

[0050] Instead of pressurising the entire inner production casing 6 or a zone opposite an expansion opening of the annular barrier 1, the annular barrier 1 may not have an expansion opening and the annular space comprises at least one thermally decomposable compound adapted to generate gas or super-critical fluid upon decomposition. This compound may be thermally decomposable below a temperature of 400°C and may comprise nitrogen, or comprise nitrogen in the form of ammonium, nitrite, azide or nitrate. The compound may be selected from a group consisting of: ammonium dichromate, ammonium nitrate, ammonium nitrite, barium azide, sodium nitrate, or a combination thereof. The compound may decompose at temperatures above 100°C, preferably above 180°C.

[0051] By fluid, hydrocarbon-containing fluid or well fluid is meant any kind of fluid that may be present in oil or gas wells downhole, such as natural gas, oil, oil mud, crude oil, water, etc. By gas is meant any kind of gas composition present in a well, completion, or open hole, and by oil is meant any kind of oil composition, such as crude oil, an oil-containing fluid, etc. Gas, oil, and water fluids may thus all comprise other elements or substances than gas, oil, and/or water, respectively.

[0052] By a casing or production casing is meant any kind of pipe, tubing, tubular, liner, string etc. used downhole in relation to oil or natural gas production.

[0053] In the event that the tool is not submergible all the way into the casing, a downhole tractor can be used to push the tool all the way into position in the well. The downhole tractor may have projectable arms having wheels, wherein the wheels contact the inner surface of the casing for propelling the tractor and the tool forward in the casing. A downhole tractor is any kind of driving tool capable of pushing or pulling tools in a well downhole, such as a Well Tractor®.

[0054] Although the invention has been described in the above in connection with preferred embodiments of the invention, it will be evident for a person skilled in the art that several modifications are conceivable without departing from the invention as defined by the following claims.

Claims

1. A redressing method for arranging an inner production casing (6) within an existing production casing (4) in order to re-establish production of hydrocarbon-containing fluid in a malfunctioning well (2) having a top part (3), the existing production casing hav-

ing a first inner diameter (D_1) and being arranged in a borehole (37), the redressing method comprising the steps of:

- determining a first inflow section (5, 5a) of the existing production casing opposite a first production zone (101),
- providing the inner production casing having an inner diameter (D_i) which is substantially the same along an extension of the inner production casing, the inner production casing comprising a first annular barrier (1, 1a) and a second annular barrier (1, 1b) having a distance between them, each annular barrier comprising:
 - a tubular metal part (7) for mounting as part of the inner production casing,
 - an expandable metal sleeve (12) surrounding the tubular metal part and having an inner face (9) facing the tubular metal part and an outer face (10) facing an inner wall (11) of the existing production casing, each end of the expandable metal sleeve being connected with the tubular metal part, and
 - an annular space (15) between the inner face of the expandable metal sleeve and the tubular metal part,

the inner production casing having an outer unexpanded diameter (D_{uo}) which is smaller than the first inner diameter of the existing production casing,

- redressing the existing production casing by introducing the inner production casing into the existing production casing,
- arranging the first annular barrier on one side of the first inflow section and the second annular barrier on the other side of the inflow section,
- encapsulating the first inflow section of the existing production casing by expanding the expandable metal sleeves of the first annular barrier and the second annular barrier, isolating the first inflow section,
- anchoring the inner production casing in the top part of the well,
- providing a first inflow section (16) in the inner production casing opposite the first inflow section of the existing production casing, and
- initiating production of hydrocarbon-containing fluid through the inner production casing.

2. A redressing method according to claim 1, comprising the step of reducing a hydrostatic pressure of the well by the step of redressing the existing production casing by means of the inner production casing.
3. A redressing method according to any of claims 1-2,

comprising the steps of

- determining a second inflow section of the existing production casing opposite a second production zone, 5
wherein the step of providing an inner production casing further comprises providing a third annular barrier, and
- arranging the second annular barrier on one side of the second inflow section and the third annular barrier on the other side of the second inflow section of the existing production casing. 10
- 4. A redressing method according to claim 3, comprising the steps of: 15
 - determining a third inflow section of the existing production casing opposite a third production zone, 20
wherein the step of providing an inner production casing further comprises providing a fourth annular barrier, and
 - arranging the third annular barrier on one side of the third inflow section and the fourth annular barrier on the other side of the third inflow section of the existing production casing. 25
- 5. A redressing method according to any of claims 1-4, wherein the inner production casing extends to the top of the well. 30
- 6. A redressing method according to any of claims 1-5, wherein the inner production casing overlaps most of the existing production casing. 35
- 7. A redressing method according to any of claims 1-6, wherein the step of anchoring the inner production casing at the top part of the well comprises the step of providing the inner production casing with an anchoring annular barrier. 40
- 8. A redressed completion system (100) for re-establishing production of hydrocarbon-containing fluid in a malfunctioning well (2) having a top part (3), comprising: 45
 - an existing production casing (4) arranged in the well and having a first inflow section (5, 5a) opposite a first production zone (101), 50
 - an inner production casing (6) comprising a first annular barrier (1, 1a) and a second annular barrier (1, 1b) having a distance between them, each annular barrier comprising: 55
 - a tubular metal part (7) for mounting as part of the inner production casing,
 - an expandable metal sleeve (8) surrounding the tubular metal part and having an inner face (9) facing the tubular metal part and an outer face (10) facing an inner wall (11) of the existing production casing, each end of the expandable metal sleeve (12) being connected with the tubular metal part, and
 - an annular space (15) between the inner face of the expandable metal sleeve and the tubular metal part, 60
wherein the inner production casing comprises a first inner inflow section (16, 16a) arranged between the first annular barrier and the second annular barrier, the inner production casing extending inside the existing production casing, and the first annular barrier is expanded on one side of the first inflow section and the second annular barrier is expanded on the other side of the first inflow section of the existing production casing, isolating the first inflow section and leading the hydrocarbon-containing fluid from the first production zone into the inner production casing through the inflow sections. 65
- 9. A redressed completion system according to claim 8, wherein the inner production casing has an unexpanded outer diameter (D_{uo}) which is smaller than a first inner diameter (D_1) of the existing production casing, reducing the hydrostatic pressure of the well. 70
- 10. A redressed completion system according to any of claims 8-9, wherein the inner production casing is anchored to the top part of the well. 75
- 11. A redressed completion system according to any of claims 8-10, wherein the inner production casing extends to a top (51) of the well. 80
- 12. A redressed completion system according to any of claims 8-11, wherein the existing production casing has a second inflow section (5, 5b) opposite a second production zone (102), and the inner production casing comprises a third annular barrier (1, 1c) and a second inner inflow section (16, 16b) arranged between the second annular barrier and the third annular barrier, the second annular barrier being expanded on one side of the second inflow section and the third annular barrier being expanded on the other side of the second inflow section of the existing production casing, isolating the second inflow section. 85
- 13. A redressed completion system according to any of claims 8-12, further comprising a detection tool (50) configured to determine the inflow sections of the existing production casing. 90
- 14. A redressed completion system according to any of claims 8-13, wherein a screen (20) is arranged opposite the inflow sections of the existing production 95

casing and/or the inner inflow sections of the inner production casing.

15. A redressed completion system according to any of claims 8-14, wherein the inflow section comprises an inflow control device (38). 5

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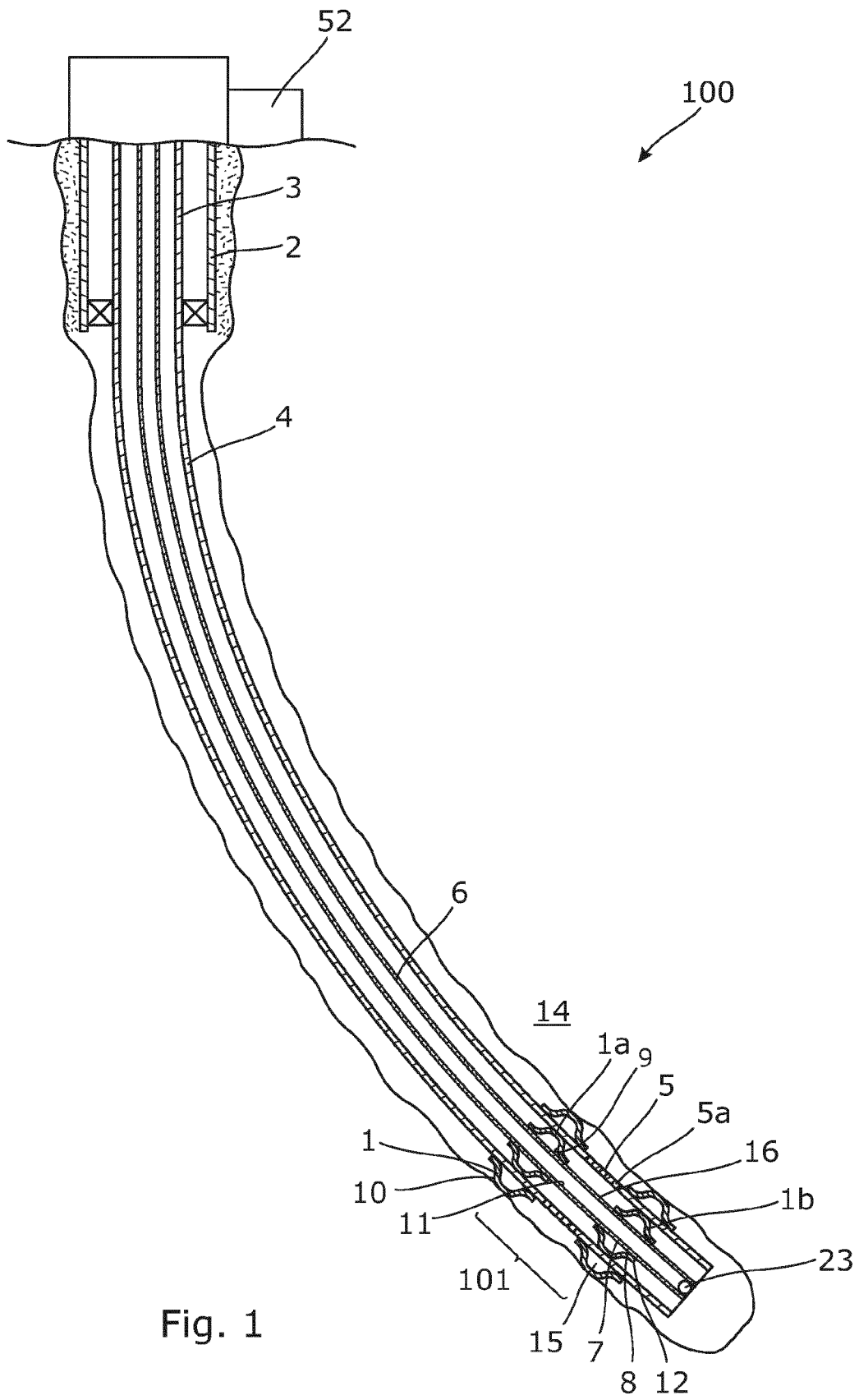
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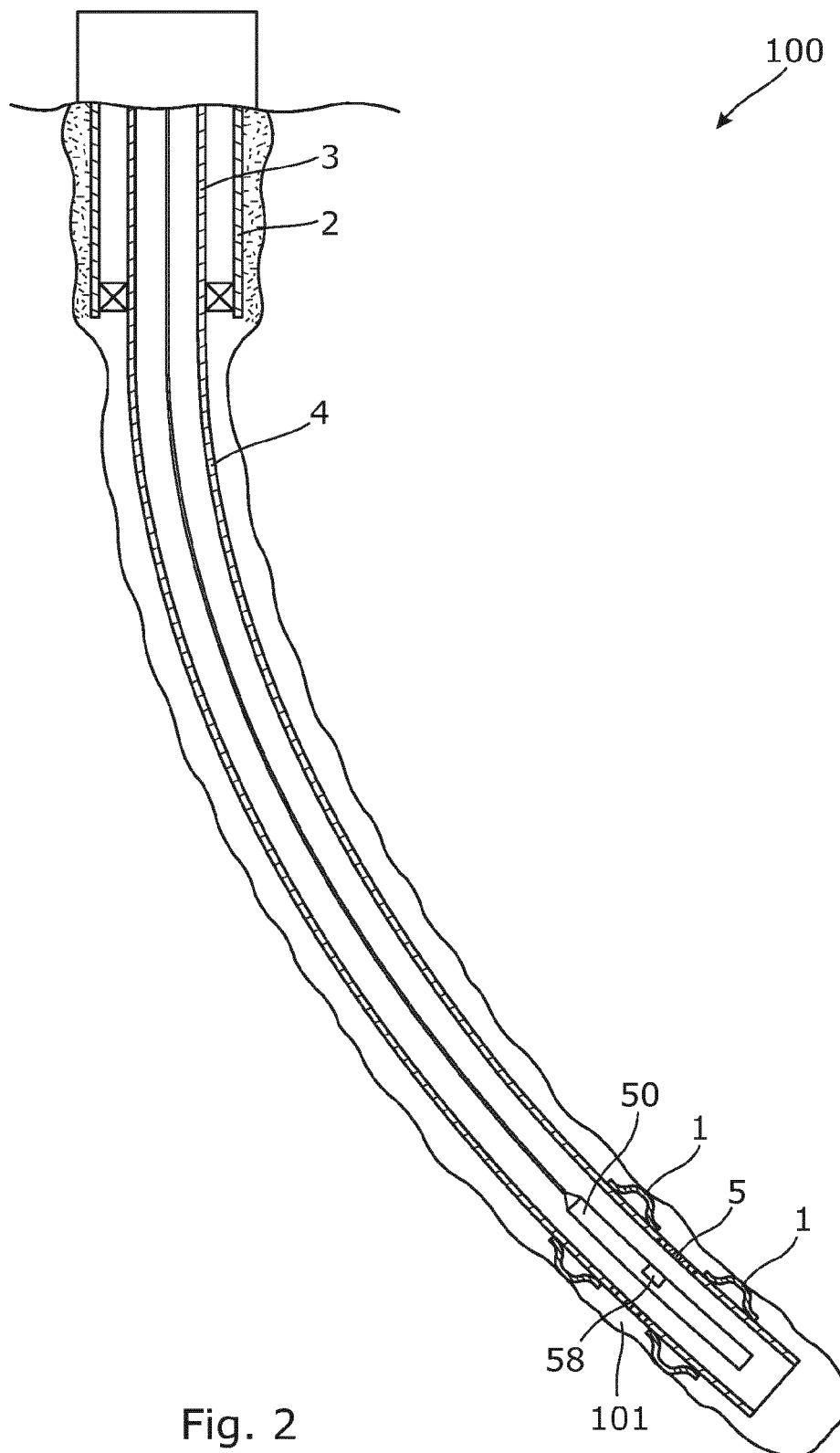
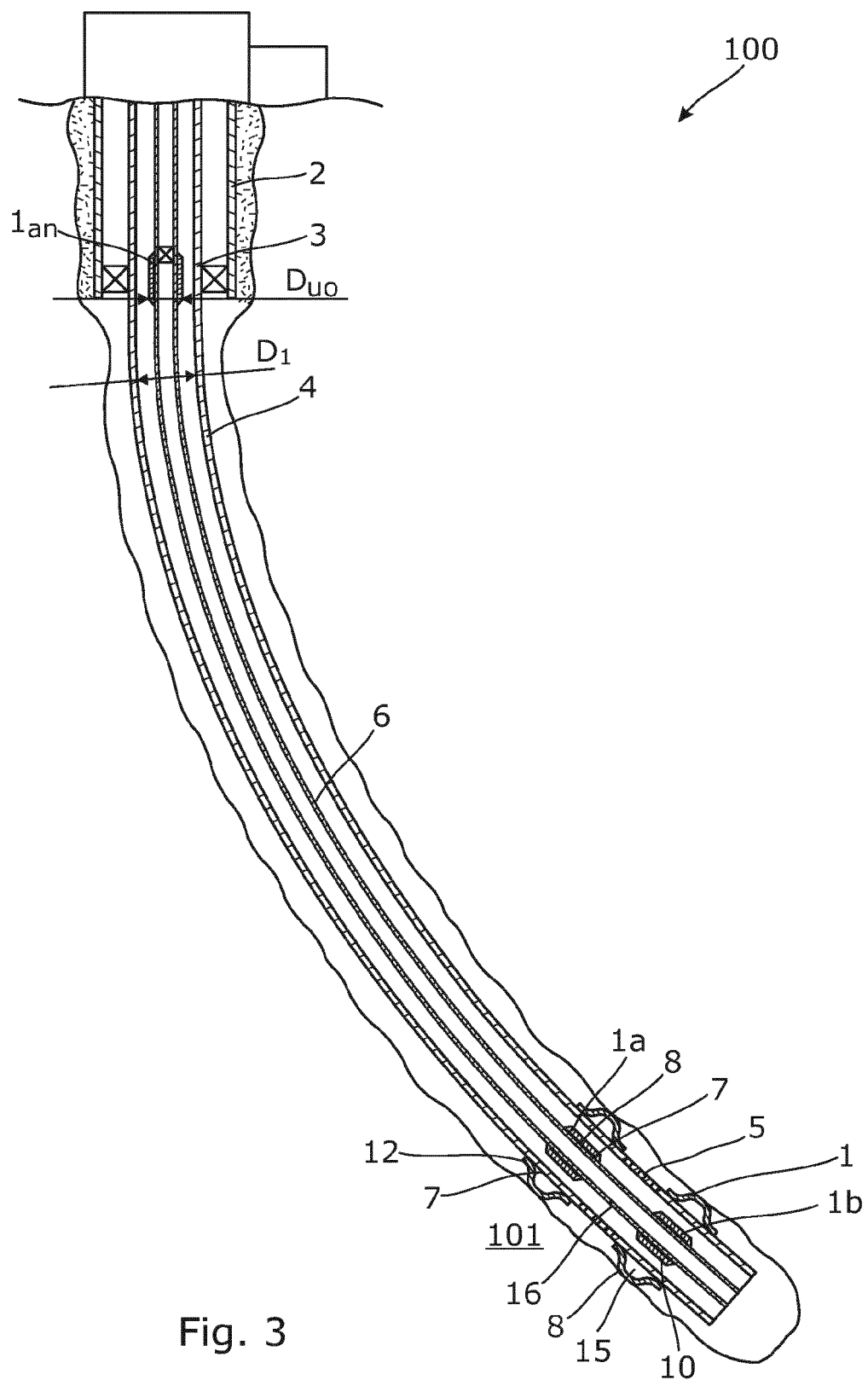
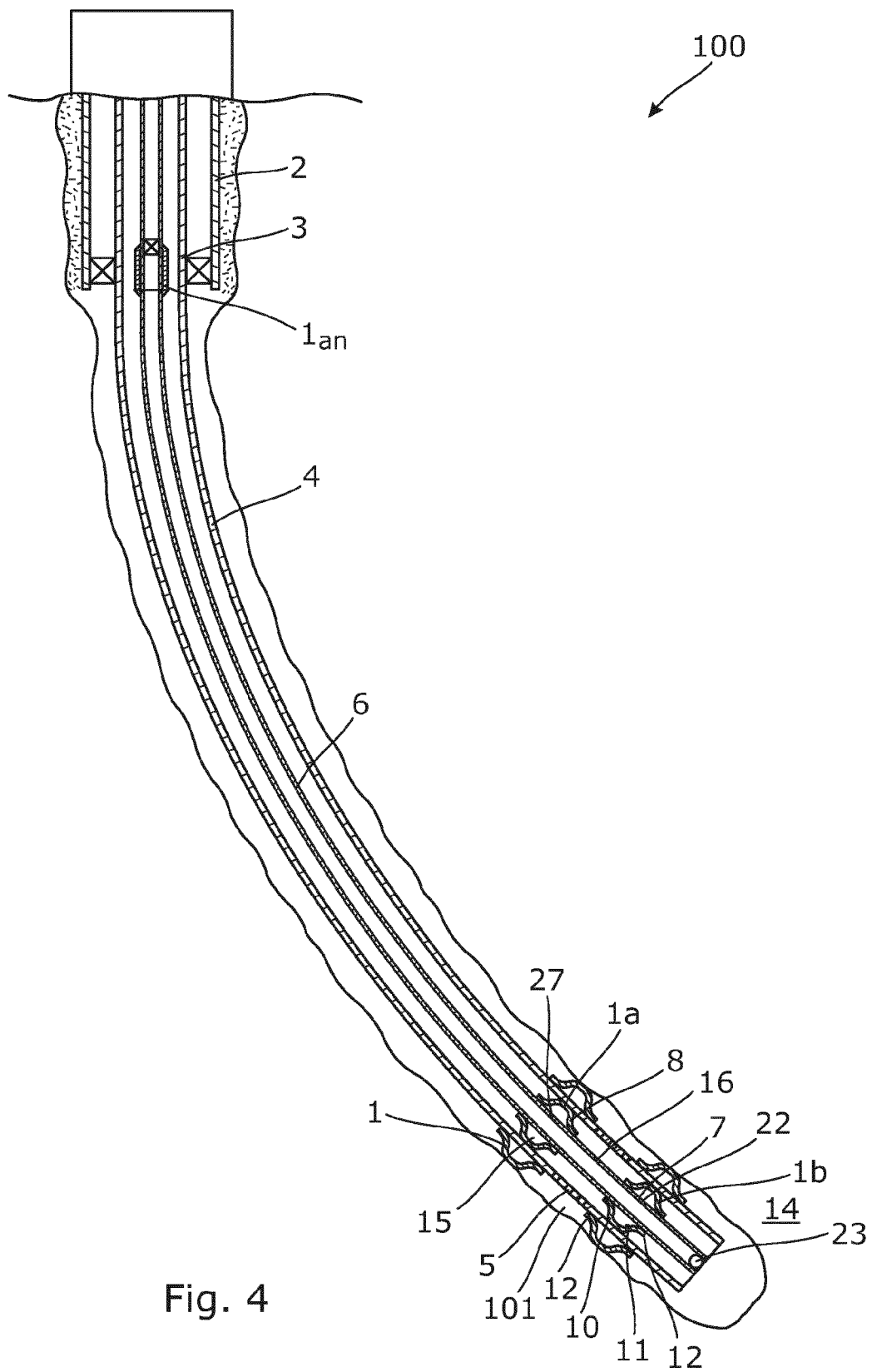
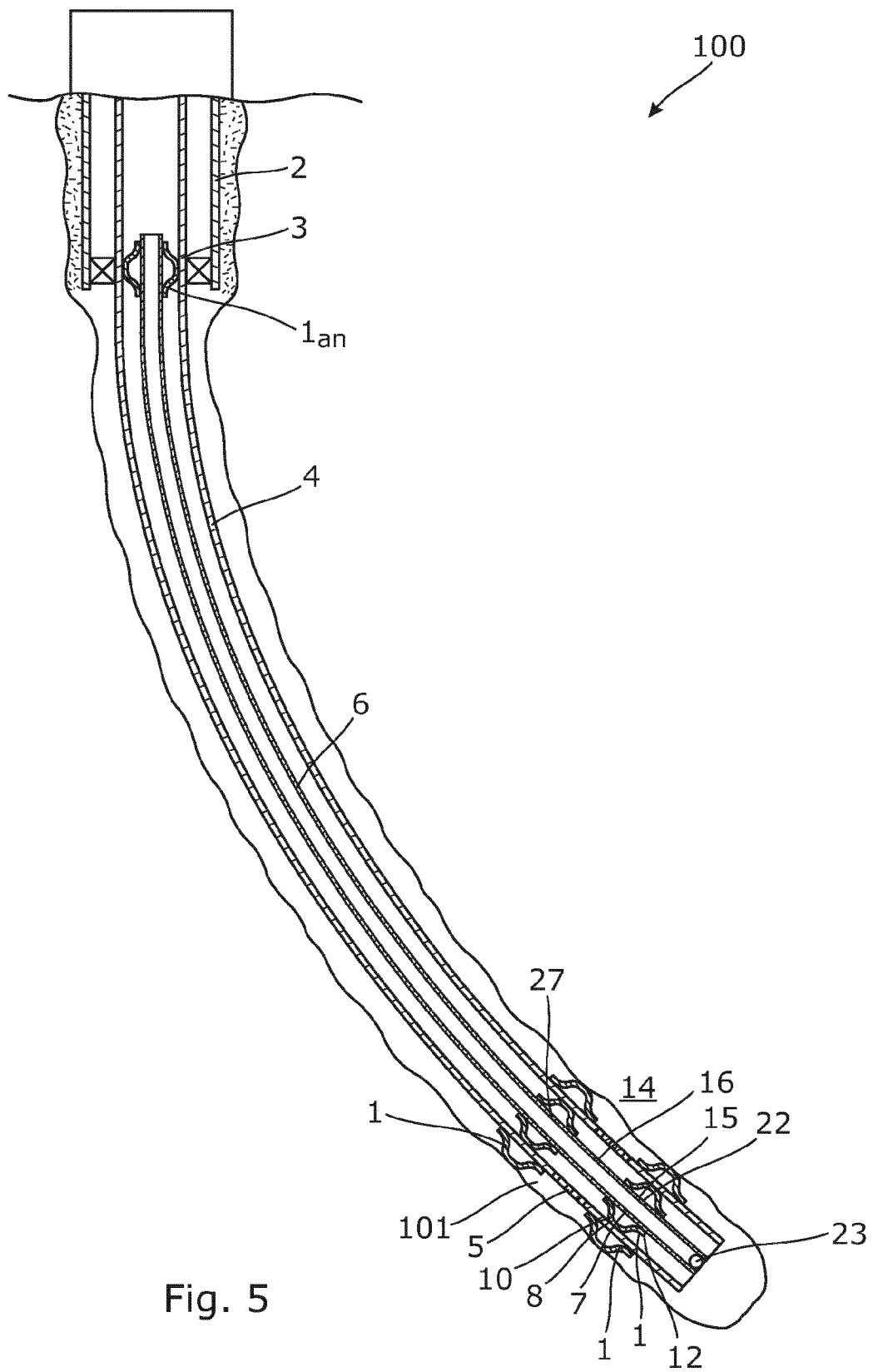


Fig. 2







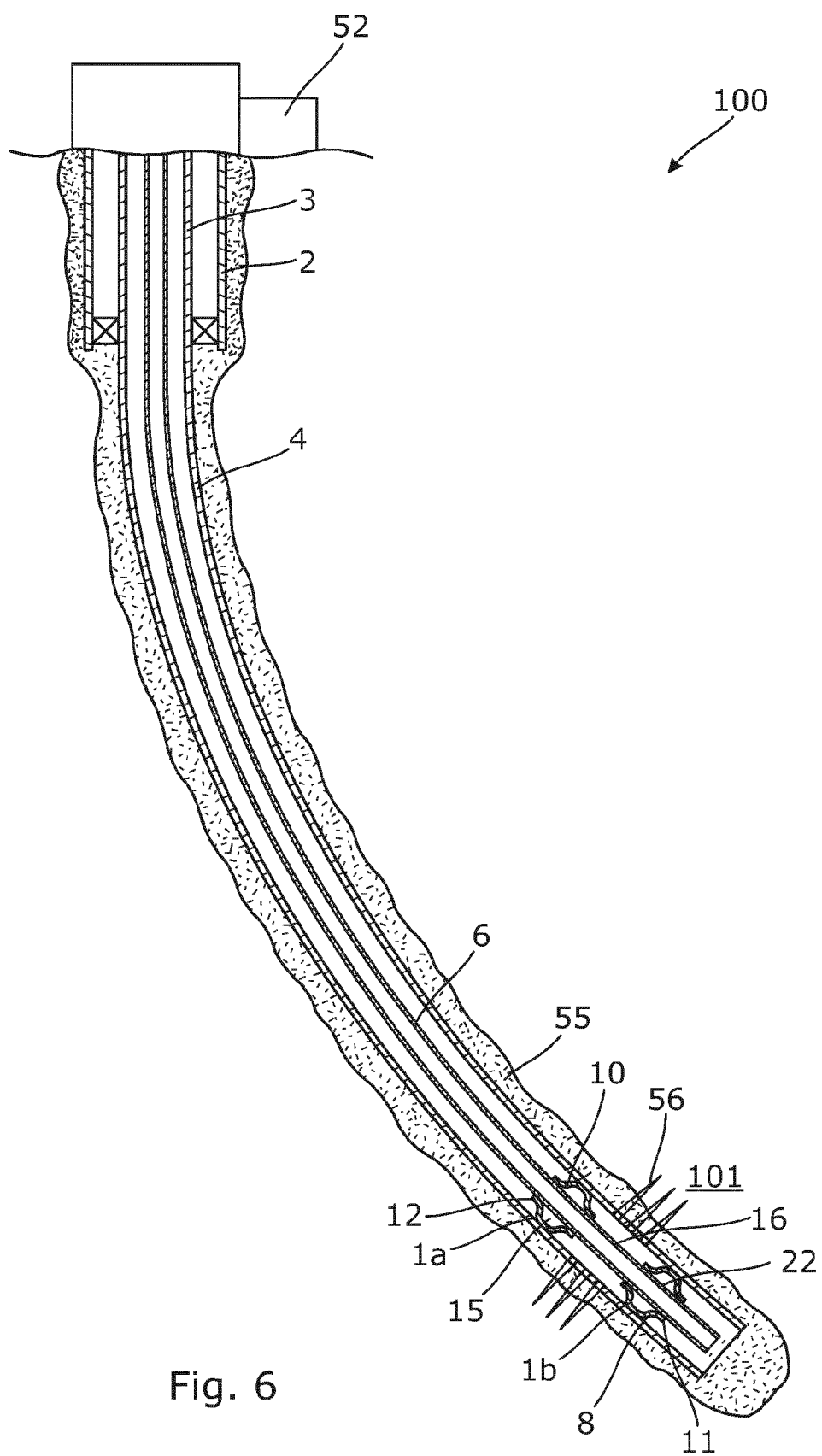
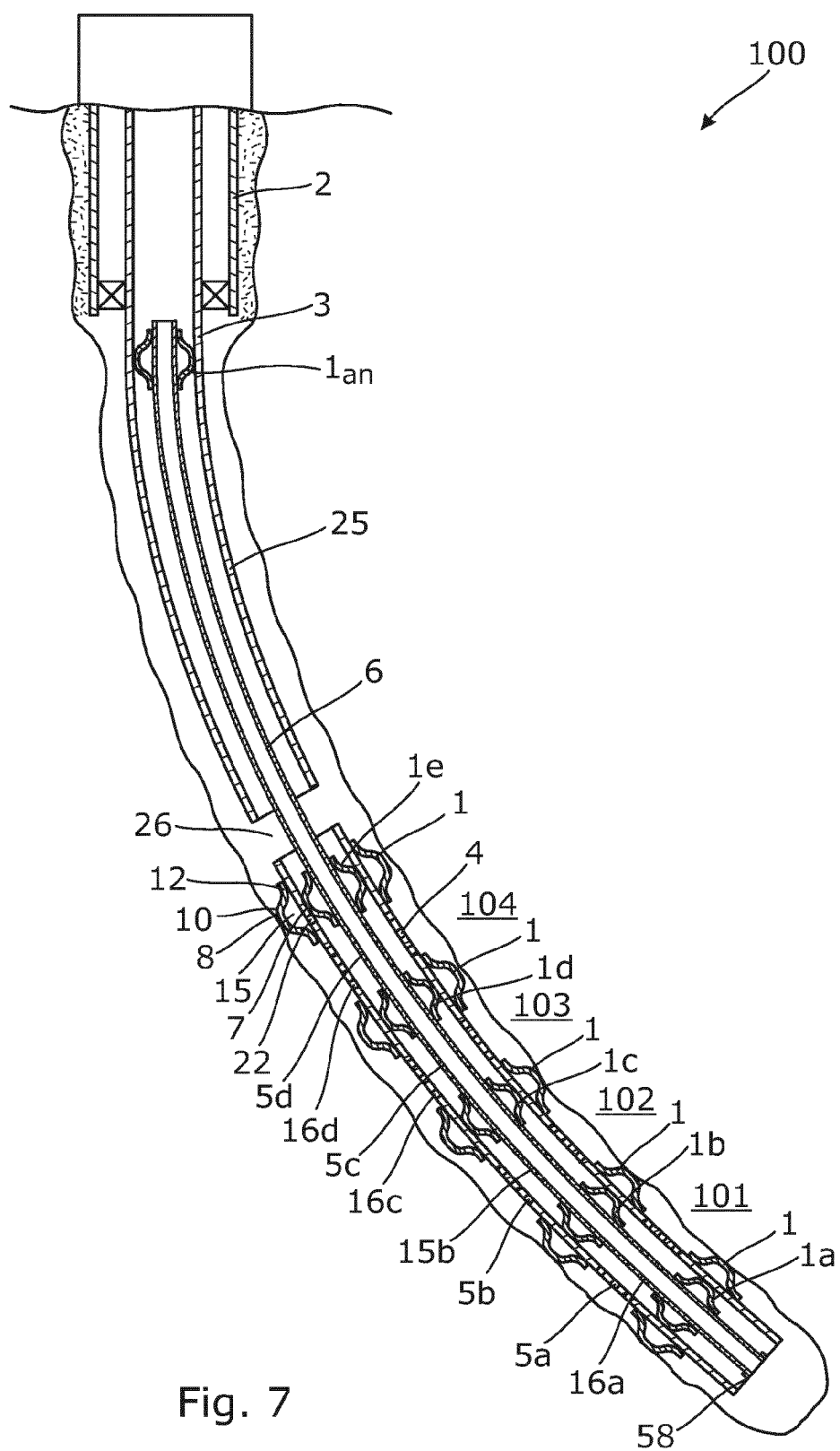


Fig. 6



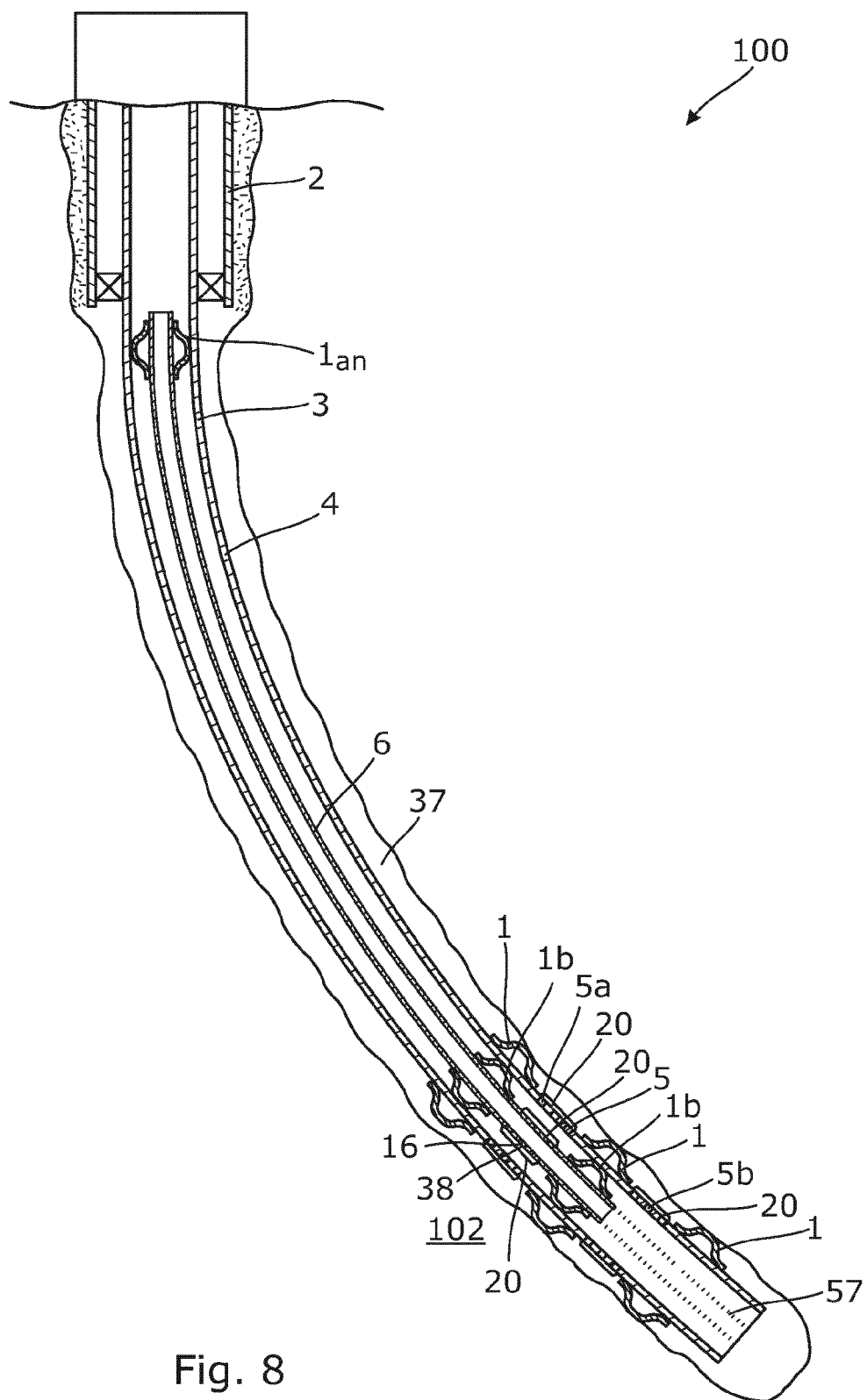


Fig. 8

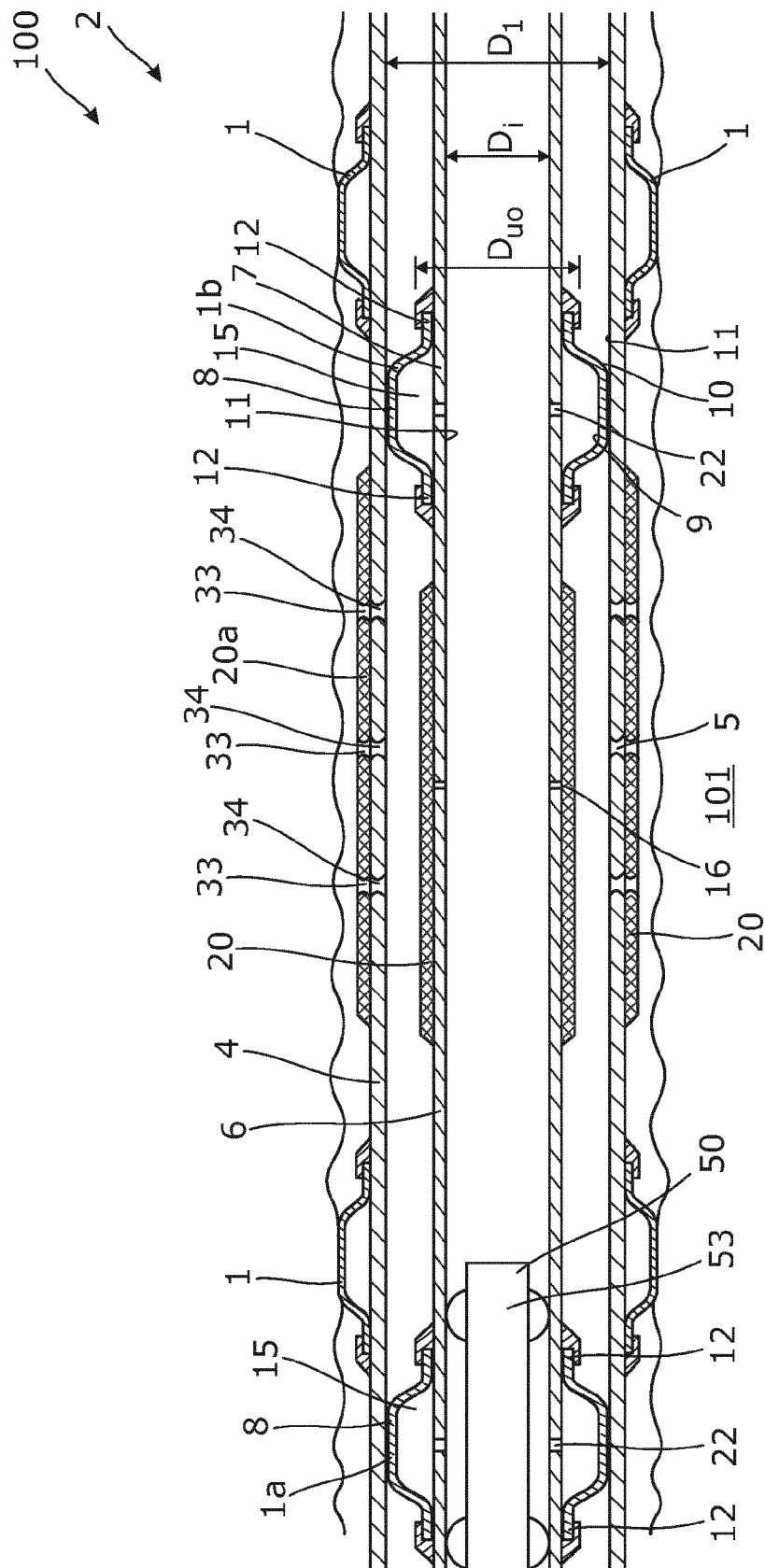


Fig. 9

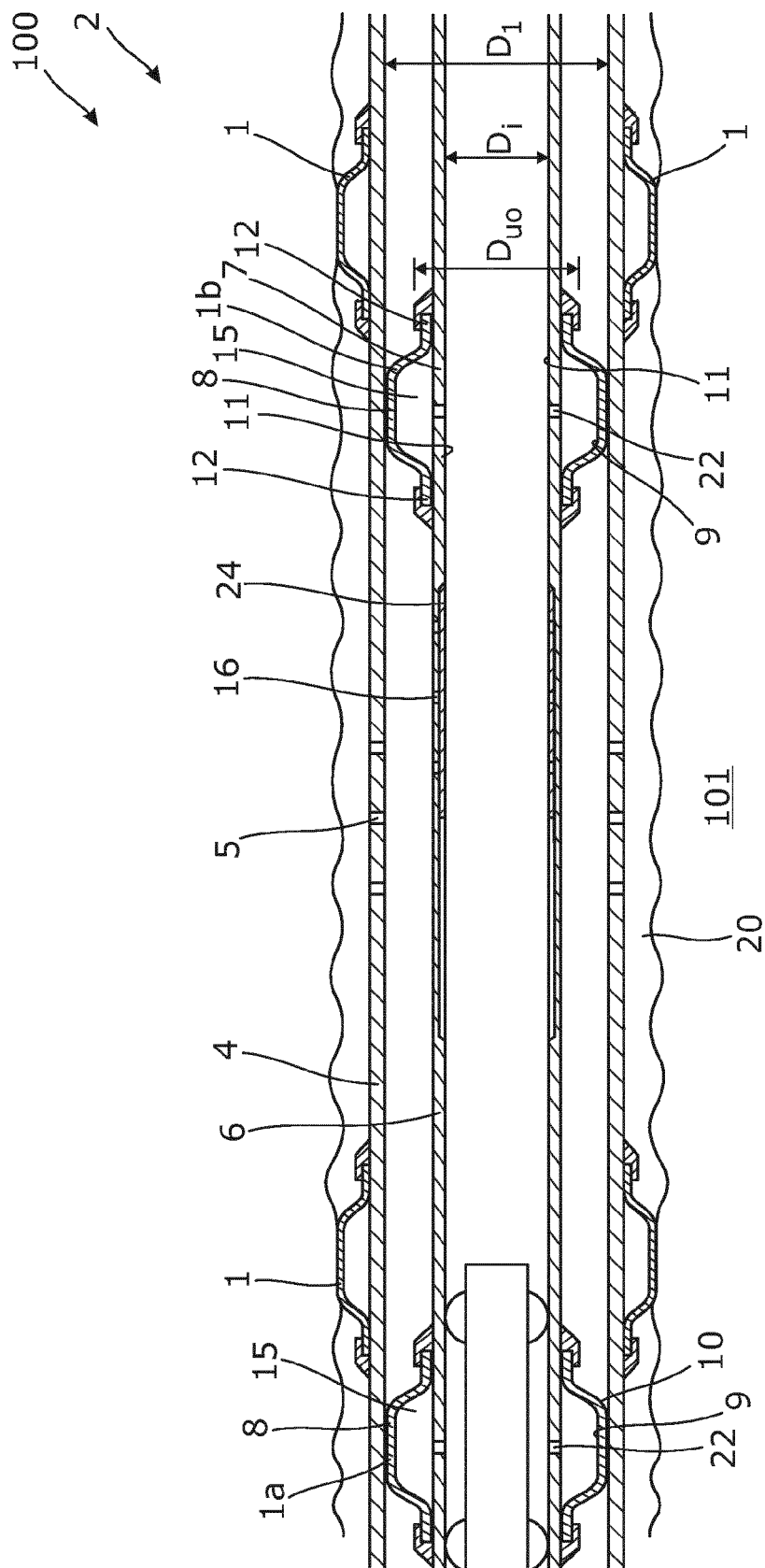


Fig. 10



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