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(72) Inventors:
• **WANG, Daniel Chun**
505 CHANGHUA COUNTY (TW)
• **CHENG, Chi-Han**
505 CHANGHUA COUNTY (TW)

(74) Representative: **Becker Kurig Straus**
Patentanwälte
Bavariastrasse 7
80336 München (DE)

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(71) Applicant: **Wang, Daniel Chun**
505 Changhua County (TW)

(54) **HOSE REELING STRUCTURE**

(57) A hose reeling structure comprising a rear blocking component (20, 20A), a front blocking component (30) and a drum (40). The tube at one end of a hose (50) is reserved by a predetermined length, and then the reserved tube is retained a retaining portion (23, 23A) of the rear blocking component (20, 20A). Therefore, the hose reeling structure is capable of hose reeling and reserving a hose (50) tube.

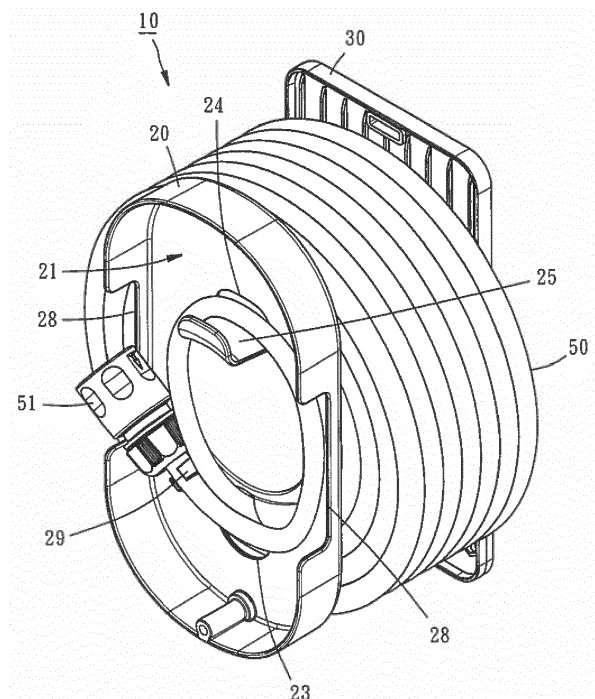


FIG. 1

Description**BACKGROUND OF THE INVENTION**

1. Technical Field

[0001] The present invention relates to a hose reeling structure and, more particularly, to a hose reel capable of winding a hose and reserving a part of a hose.

2. Description of Related Art

[0002] Upon completion of its use, a conventional hose is usually reeled in order to be stored. However, the loops in which the hose is reeled vary in size, and in consequence the reeled hose looks untidy and thus unsightly. Furthermore, residual water trickles out of the awkwardly reeled or hung hose to the user's disappointment.

[0003] Japan patent 3057052 discloses a Hose Reel. A hose reel 1 comprises a reel body 4. The reel body 4 has a hollow-core hose drum 12 formed between a front wall 10 and a rear wall 11. A hose 2 is reeled on the hose drum 12. However, while the hose 2 is being reeled, a tube with a connector 6 is inevitably pressed below a tube of another connector 9. Hence, a user may approach the hose, only to discover that a reserved tube at one of the ends is of insufficient length. In a likely scenario, the user has to unreel the hose 2 thoroughly before beginning to use it. Therefore, the hose reel 1 lacks ease of use.

[0004] Accordingly, in the interest of user friendliness, a hose reel structure capable of reserving a hose tube is desired..

BRIEF SUMMARY OF THE INVENTION

[0005] It is therefore one or more aspects to provide a hose reeling structure for reserving a hose tube.

[0006] It is therefore one or more aspects to provide a hose reeling structure for enabling quick connection to the water source.

[0007] It is therefore one or more aspects to provide a hose reeling structure for preserving the integrity of the hose.

[0008] To achieve the above and other objectives, the present invention provides a hose reeling structure, comprising: a rear blocking component; a front blocking component corresponding in position to the rear blocking component; and a drum disposed between the rear blocking component and the front blocking component, wherein the rear blocking component has a first through hole and a retaining portion such that one end of a hose is penetratingly disposed at the first through hole and then hung on the retaining portion. The other end of the hose is hung on the drum.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS**[0009]**

FIG. 1 is a perspective view of a hose reeling structure according to the first preferred embodiment of the present invention;

FIG. 2 is a perspective view of the hose reeling structure from another direction according to the first preferred embodiment of the present invention;

FIG. 3 is a partial perspective exploded view of FIG. 2;

FIG. 4 is a cross-sectional view taken along line 4-4 of FIG. 2; and

FIG. 5 is a partial perspective view of the hose reeling structure according to the second preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0010] The present invention relates to a hose reeling structure 10. The hose reeling structure according to the embodiments of the present invention will be described with reference to the drawings. Repeated description thereof may be omitted.

First Embodiment

[0011] FIGS. 1 through 4 pertains to a first preferred embodiment of the present invention. The hose reeling structure 10 comprises a rear blocking component 20, a front blocking component 30 corresponding in position to the rear blocking component 20, and a drum 40 disposed between the rear blocking component 20 and the front blocking component 30.

[0012] The rear blocking component 20 has a receiving space 21, a first through hole 23, a second through hole 24, a retaining portion 25, a limiting portion 27, two concave openings 28 and an engaging portion 29.

[0013] The receiving space 21 extends from one side of the rear blocking component 20 to face the drum 40 and sinks inward.

[0014] The first through hole 23 and the second through hole 24 extend from the junction of the rear blocking component 20 and the drum 40, penetrate the rear blocking component 20, and are in communication with the receiving space 21. Preferably, the first through hole 23 and the second through hole 24 are opposite to each other. Specifically speaking, the first through hole 23 is of a diameter large enough for the first through hole 23 to be penetrable by a connector at one of the ends of a hose 50.

[0015] An inner circumferential wall 212 of the receiving space 21 of the rear blocking component 20 protrudes to form the retaining portion 25. Specifically speaking, the retaining portion 25 is an extension of the drum 40.

[0016] The receiving space 21 of the rear blocking

component 20 is in communication with the outside through the two concave openings 28. The two concave openings 28 are opposite to each other. Alternatively, one concave opening 28 is sufficient.

[0017] The limiting portion 27 is formed on the rear blocking component 20 and in communication with the first through hole 23. The limiting portion 27 defines a bending incurvated surface corresponding to the curvature and outer diameter of the hose 50, respectively. Preferably, the bend of the limiting portion 27 bends in the same direction as the hose 50 is reeled.

[0018] The engaging portion 29 is formed by the protrusion of the inner circumferential wall 212 of the receiving space 21 of the rear blocking component 20 and positioned proximate to the first through hole 23 and the limiting portion 27. The engaging portion 29 is substantially C-shaped. Preferably, the mouth of the first through hole 23, which the limiting portion 27 is in communication with, corresponds in position to the engaging portion 29.

[0019] Preferably, the limiting portion 27 is a separate component and of a soft material.

[0020] Therefore, the hose reeling structure 10 is capable of reserving a hose tube. One end of the hose 50 is reserved by a predetermined length, and the reserved tube penetrates the first through hole 23 and then retained by the retaining portion 25 of the rear blocking component 20. The predetermined length is preferably sufficient for connection to a nearby spigot or a water source.

[0021] Therefore the two concave openings 28 increase rear storage space and allows for obstruction-free storage and removal of the reserved tube.

[0022] Therefore, the reserved tube of the hose 50 and a connector 51 mounted at one end of the hose 50 is engaged with the engaging portion 29 of the rear blocking component 20.

[0023] Therefore the main segment of the hose 50, which is behind the point at which the hose 50 is penetratingly disposed at the first through hole 23, is spontaneously confined to the limiting portion 27 and reeled on an outer circumferential wall 404 of the drum 40. A nozzle 53 connected to the other end of the hose 50 is hung vertically.

[0024] Therefore, the limiting portion 27 prevents bend or dent at the junction of the main tube and the reserved tube, thus preserving the integrity of the hose.

[0025] Therefore, the hose reeling structure 10 simultaneously maintains a reserved tube for connection to a water source and a main tube for sprinkling with one integral hose.

Second Embodiment

[0026] FIG. 5 pertains to a second preferred embodiment of the invention.

[0027] The retaining portion 25A of the rear blocking component 20A is horseshoe-shaped and extends from one side of the rear blocking component 20A so as to

face the drum (not shown). Similarly, the first through hole 23A extends from the junction of the rear blocking component 20A and the drum 40A and penetrates the rear blocking component 20A. The limiting portion 27A is formed by sinking the junction of the rear blocking component 20A and the drum 40A, and the limiting portion 27A is in communication with the first through hole 23A.

[0028] The present invention is disclosed above by preferred embodiments, which shall not be interpreted as restrictive of the scope of the present invention. Hence, all amendments which persons skilled in the art can easily think of shall fall within the scope of the present invention. Accordingly, the scope of the present invention shall be defined by the appended claims.

Claims

1. A hose reeling structure, **characterized by** comprising:

a rear blocking component (20, 20A);
a front blocking component (30) corresponding in position to the rear blocking component (20, 20A); and
a drum (40) disposed between the rear blocking component (20, 20A) and the front blocking component (30),
wherein the rear blocking component (20, 20A) has a first through hole (23, 23A) and a retaining portion (25, 25A), the first through hole (23, 23A) extending from a junction of the rear blocking component (20, 20A) and the drum and penetrating the rear blocking component (20, 20A), the retaining portion (25, 25A) extending from a side of the rear blocking component (20, 20A) so as to face the drum (40).

2. The hose reeling structure of claim 1, wherein the rear blocking component (20, 20A) further has a receiving space (21) extending from a side of the rear blocking component (20, 20A) to face the drum (40) and sinking inward, with the first through hole (23, 23A) being in communication with the receiving space (21), and an inner circumferential wall (404) of the receiving space (21) protrudes to form the retaining portion (25, 25A).

3. The hose reeling structure of claim 2, wherein the rear blocking component (20, 20A) further comprises a limiting portion (27, 27A) having an incurvated surface and in communication with the first through hole (23, 23A).

4. The hose reeling structure of claim 3, wherein the rear blocking component (20, 20A) further has an engaging portion (29) formed by protrusion of the inner circumferential wall (404) of the receiving

space (21) of the rear blocking component (20, 20A) and positioned proximate to the first through hole (23, 23A) and the limiting portion (27, 27A).

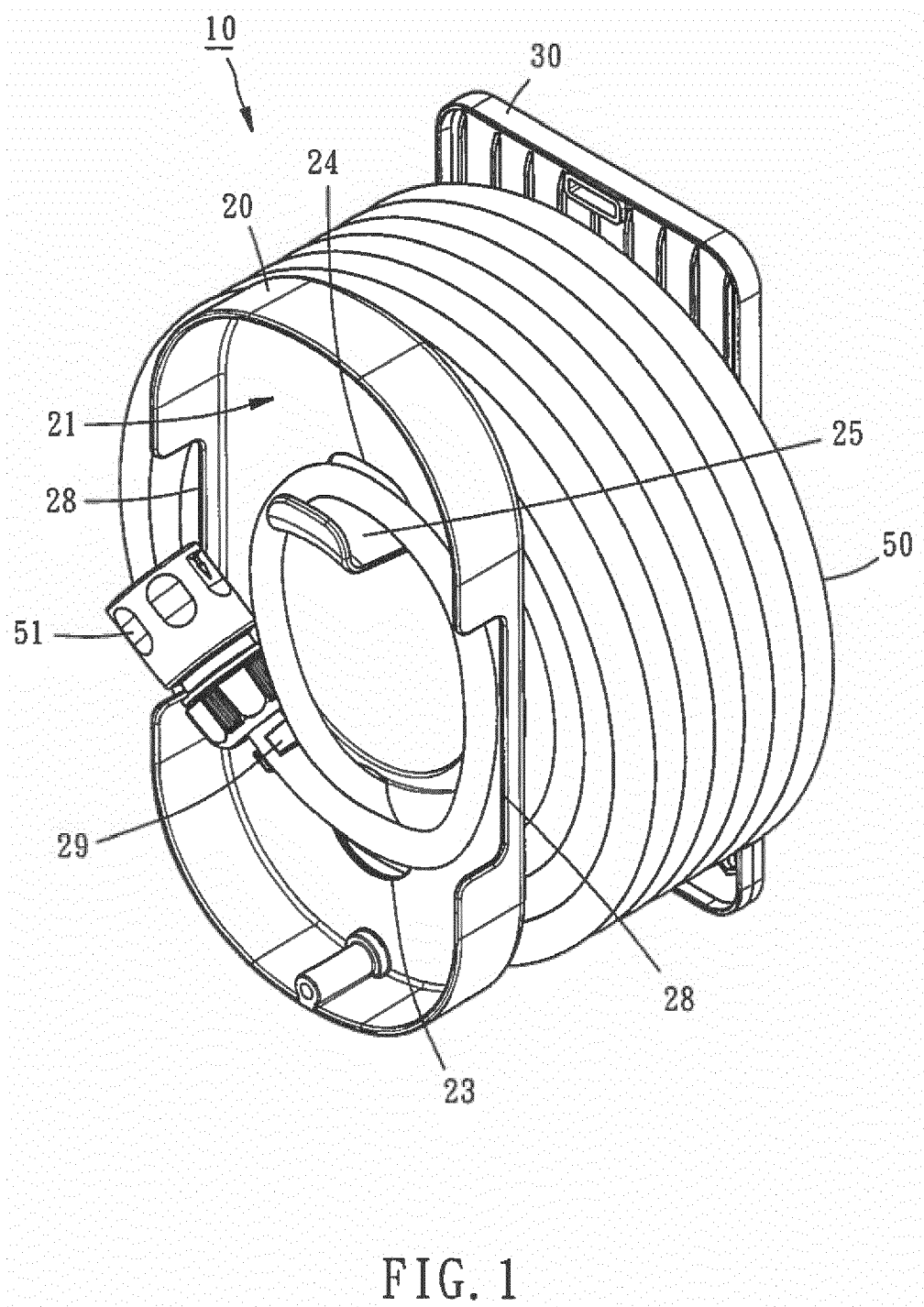
5. The hose reeling structure of claim 1, wherein the rear blocking component (20, 20A) further comprises a limiting portion (27, 27A) having an incurvated surface and in communication with the first through hole (23, 23A). 5
6. The hose reeling structure of claim 5, wherein the rear blocking component (20, 20A) further has an engaging portion (29) extending from another side of the rear blocking component (20, 20A) to face the drum (40) and positioned proximate to the first through hole (23, 23A) and the limiting portion (27, 27A). 10
7. The hose reeling structure of claim 1, wherein the rear blocking component (20, 20A) further has an engaging portion (29) extending from another side of the rear blocking component (20, 20A) to face the drum (40) and positioned proximate to the first through hole (23, 23A). 15
8. The hose reeling structure of any one of claims 1-7, wherein the rear blocking component (20, 20A) further has a second through hole (24) extending from a junction of the rear blocking component (20, 20A) and the drum (40), penetrating the rear blocking component (20, 20A), and being in communication with the receiving space (21). 20
9. The hose reeling structure of claim 8, wherein the rear blocking component (20, 20A) has at least a concave opening (28) being in communication with the receiving space (21) such that the receiving space (21) is in communication with an outside through the at least a concave opening (28). 25
10. The hose reeling structure of any one of claims 1-7, wherein the rear blocking component (20, 20A) has at least a concave opening (28) being in communication with the receiving space (21) such that the receiving space (21) is in communication with an outside through the at least a concave opening (28). 30
11. The hose reeling structure of any one of claims 1-7, the hose reeling structure further has a hose (50), wherein the first through hole (23, 23A) of the rear blocking component (20, 20A) is of a diameter large enough for the first through hole (23, 23A) to be penetrable by a connector at one of the ends of the hose (50). 35

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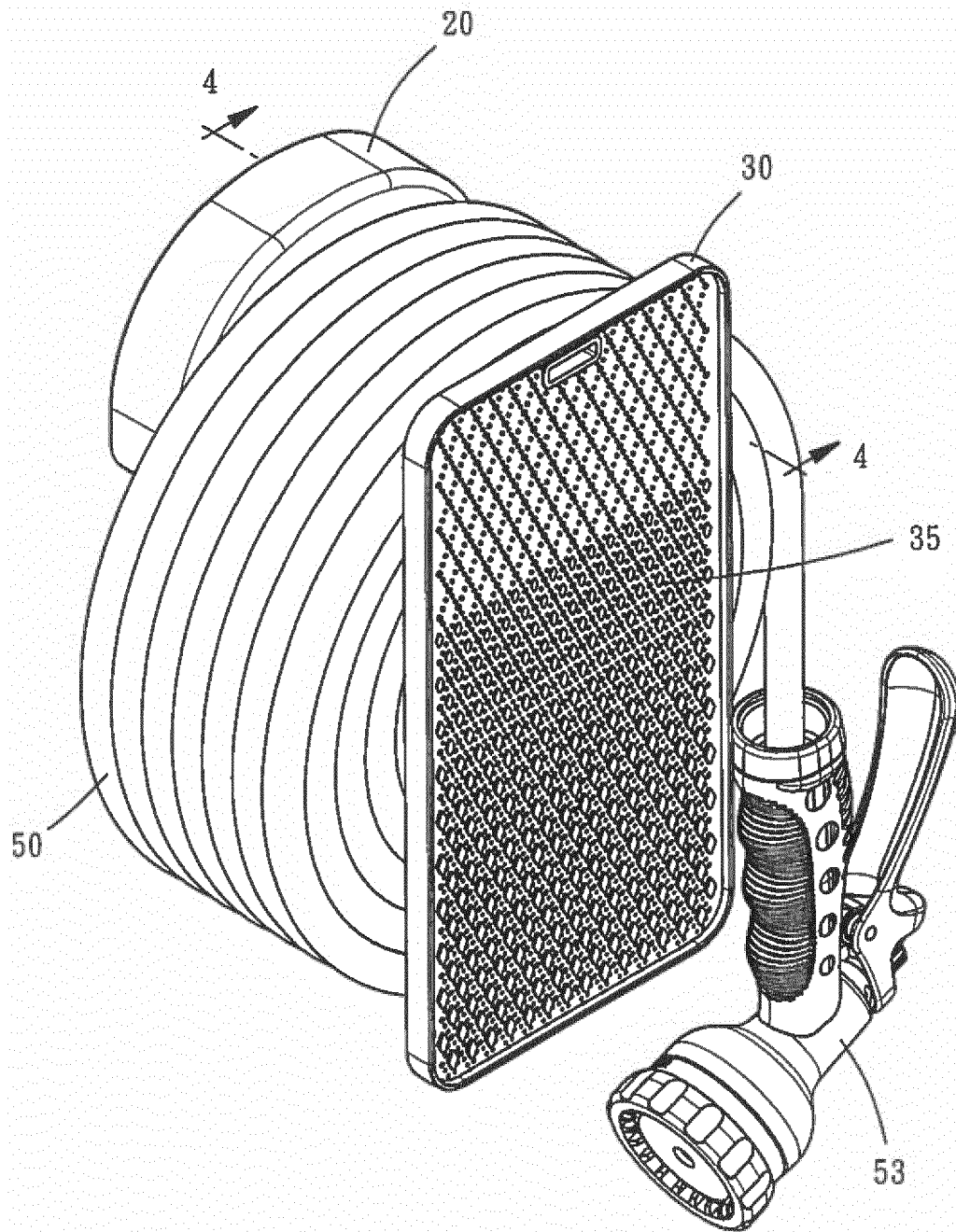


FIG. 2

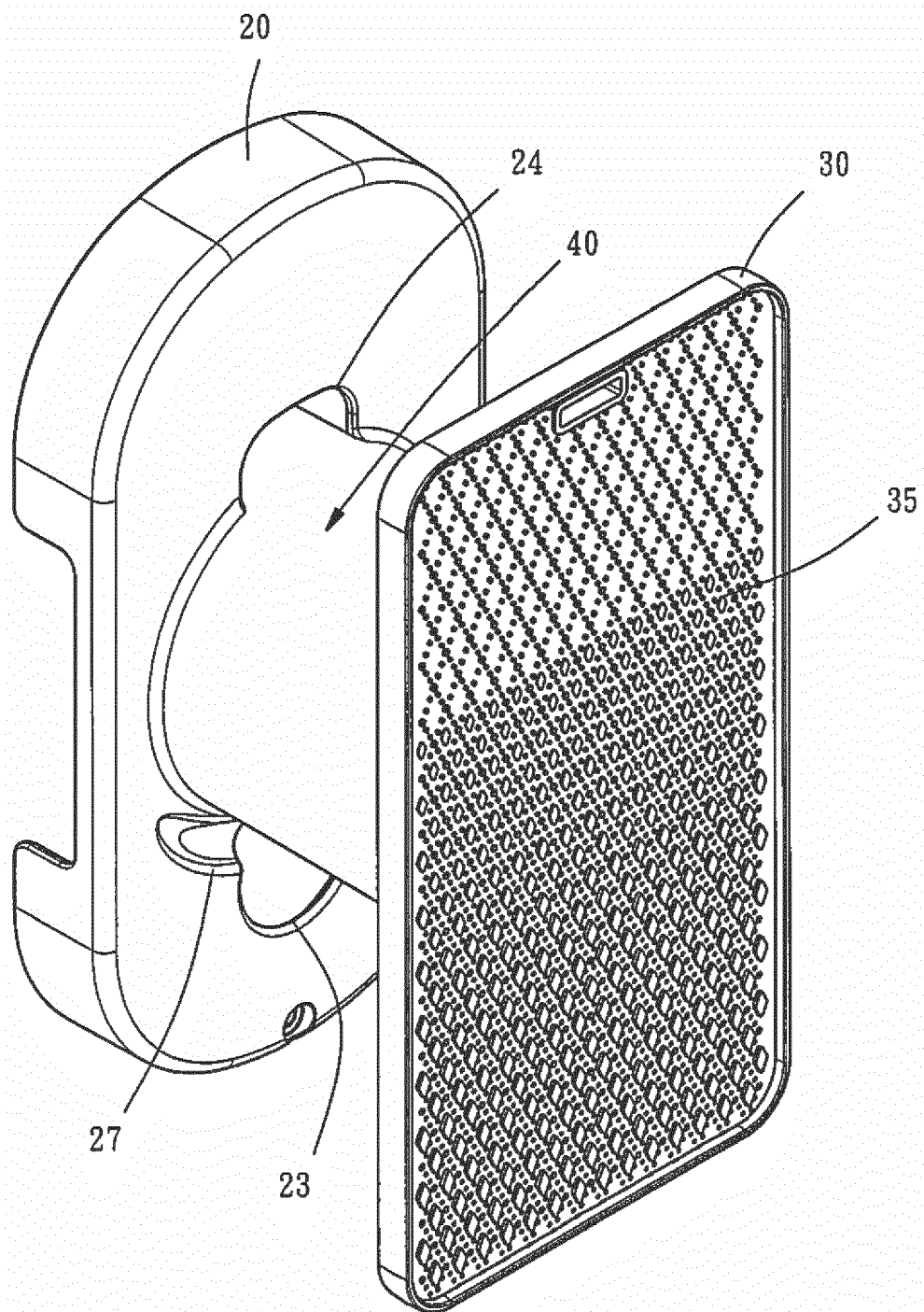


FIG. 3

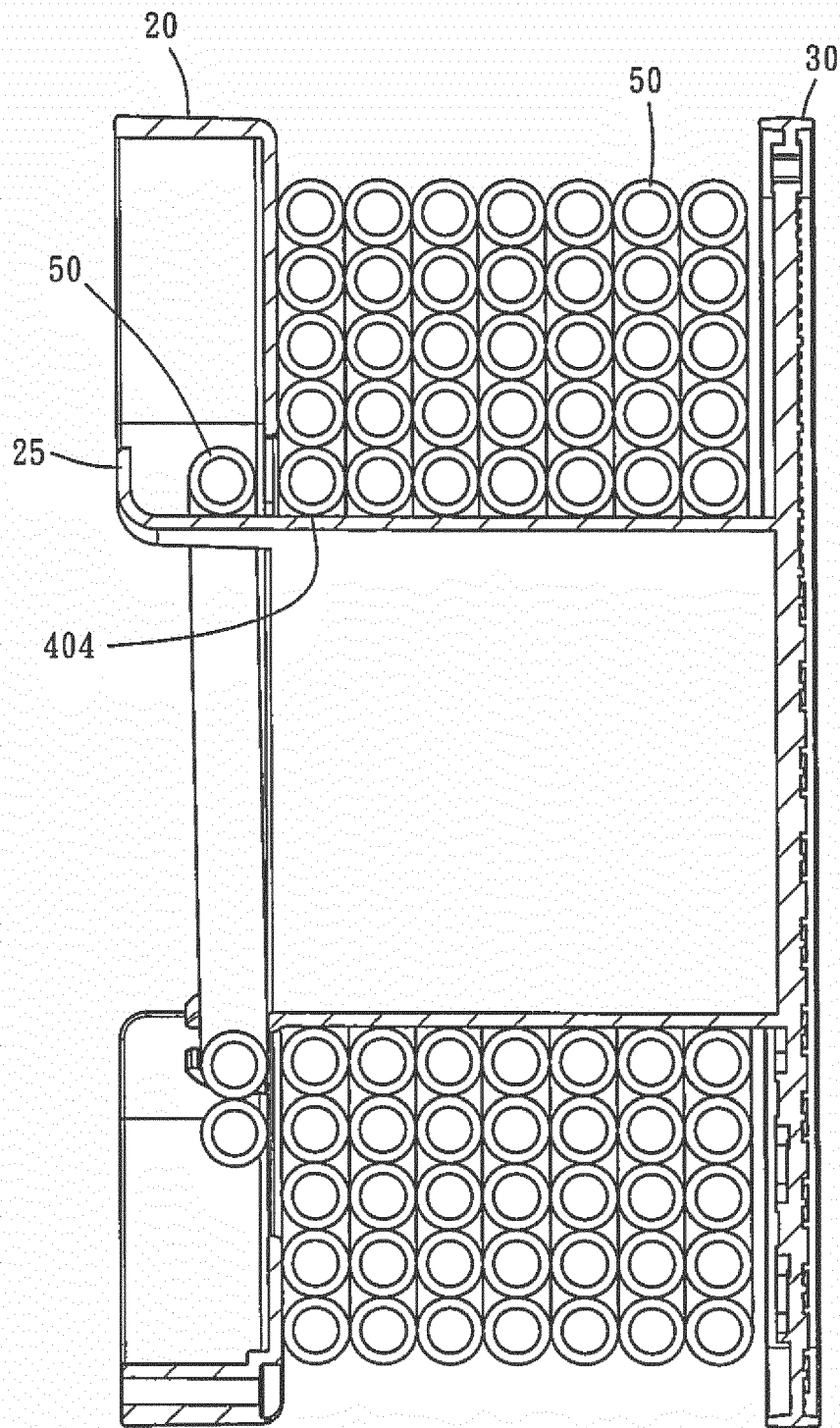
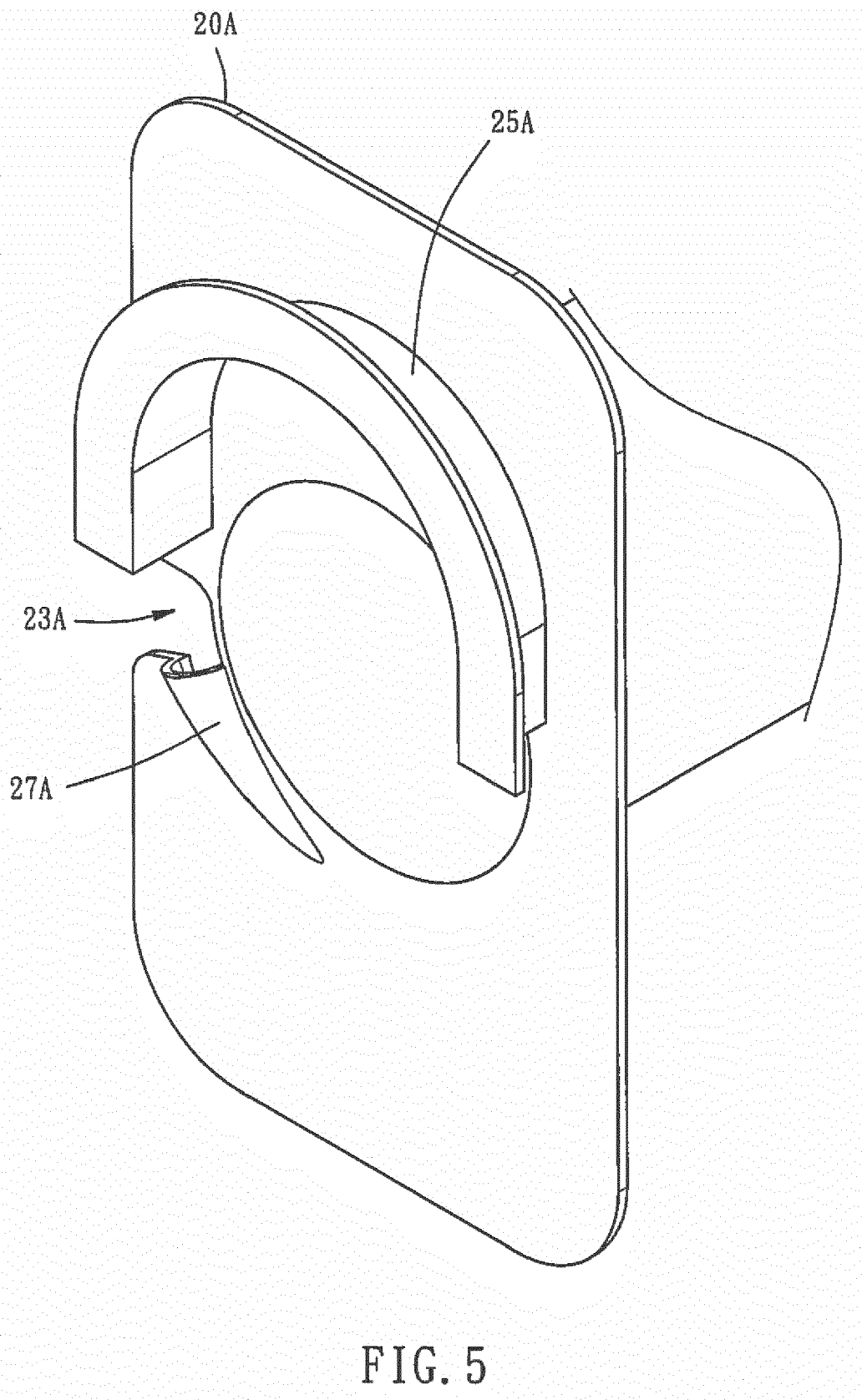


FIG. 4





EUROPEAN SEARCH REPORT

 Application Number
 EP 18 20 3094

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 May 2019	Examiner Lemmen, René
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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