# Trial decision

# Invalidation No. 2018-800153

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The case of trial regarding the invalidation of Japanese Patent No. 5079926, entitled "String Including Tubular String Body" between the parties above has resulted in the following trial decision:

Conclusion

The demand for trial of the case was groundless.

The costs in connection with the trial shall be borne by the Demandant.

# Reason

No. 1 History of the procedures

The history of the main procedures of the case is as follows. Further, in the case, although the Demandant, TWINS CORPORATION. is also one of the four demandees, since it is not involved in the procedures as the Demandee, hereinafter, if simply describing "the Demandee," this expression refers to three people ("NAGATA, Makoto," "YANG, Liming," "HSIEH, Tsung Jen") excluding TWINS CORPORATION.

July 4, 2012	Patent Application of the case (Japanese Patent Application
No. 2012-150880)	
September 7, 2012	Registration of establishment (Japanese Patent No.
5079926)	
December 21, 2018	Submission of Written request for trial (Demandant)
May 7, 2019	Submission of written reply of trial case (Demandee)

Dated July 8, 2019	Notification of matters to be examined
August 7, 2019	Submission of oral proceeding statement brief
(Demandant)	
August 7, 2019	Submission of oral proceeding statement brief (Demandee)
August 21, 2019	Submission of oral proceeding statement brief (2)
(Demandant)	
August 21, 2019	First oral inquiry and First oral proceeding

Hereinafter, "Evidence A No. 1," "Evidence B No. 1" and the like will be abbreviated as "A-1," "B-1" and the like. Further, "Oral proceedings statement brief" or "Oral proceedings statement brief (2)" submitted by the Demandant or the Demandee will be referred to as "Demandant statement brief," "Demandee statement brief" or "Demandant statement brief (2)".

The number of lines in documents follows a description indicating the number of lines, and if there is no such description, is indicated with the number of lines counted by excluding blank lines. "....." in descriptions indicates the omission of description.

No. 2 The Invention

The inventions according to Claims 1 to 5 (hereinafter, referred to as "Invention 1" to "Invention 5") of Japanese Patent Number No. 5079926 (hereinafter, referred to as "the Patent") are acknowledged as follows, as described in Claims 1 to 5 of the Scope of Claims of the Patent.

"[Claim 1]

A string comprising:

a tubular string body made of a stretchable material which has humps repeatedly arranged at intervals and whose diameter changes depending on the magnitude of axial tension applied thereto; and

a central string which is made of a non-stretchable material at a center tube part configured by a tubular structure of the string body, configures cores of the humps, and is rounded at hump corresponding parts so as to follow the changes in a distance between both hump ends according to the changes of a hump diameter. [Claim 2]

The string according to Claim 1, wherein the stretchable material is formed by braiding a rubber-like material and a non-stretchable ordinary material. [Claim 3] The string according to Claim 1 or 2, wherein the hump of the string body has a diameter that is 1.5 times or more a diameter of the hump-free part of the string body in a state where the axial tension is zero.

## [Claim 4]

The string according to any one of Claims 1 to 3, wherein the hump of the string body has a diameter of 1.3 times or less of a diameter of the hump-free part of the string body in a state where axial tension is applied.

# [Claim 5]

The string according to Claim 2 and Claim 3 or 4 depending on Claim 2, wherein the braid of the string body is braided at an angle of about 45 degrees with respect to the axial direction."

No. 3 Gist of allegations of the parties and evidence

1 Gist of the Demandant's allegation and evidence

(1) The Demandant demands the trial decision stating that "the patent for Claims 1 to 5 of the Scope of Claims of Japanese patent No. 5079926 is invalid. The costs in connection with the trial shall be borne by the Demandee".

(2) The reasons for invalidation alleged by the Demandant are the following Reasons for invalidations 1 to 4. There is no dispute between the parties, in the point that the reasons for invalidation are only the following Reasons for invalidations 1 to 4 ("2." of notification of matters to be examined and "the parties" column "1" of First oral proceeding record).

#### [Reason for invalidation 1]

Inventions 1 to 5 are inventions described in A-1, and thus fall under Article 29(1)(iii) of the Patent Act. Therefore, the patent according to Inventions 1 to 5 falls under Article 123(1)(ii) of the same Act and should be invalidated.

# [Reason for invalidation 2]

Invention 1 could have been easily invented by a person skilled in the art prior to the application of the Patent, on the basis of common technical knowledge of a person skilled in the art represented by A-1 and A-2 to A-7. Further, Inventions 2 to 5 could have been easily invented by a person skilled in the art prior to the application of the Patent, on the basis of common technical knowledge of a person skilled in the art represented by A-1 and A-2 to A-1.

Therefore, Inventions 1 to 5 should not be granted a patent under the provisions of Article 29(2) of the Patent Act; the patent according to Inventions 1 to 5 falls under Article 123(1)(ii) of the same Act and should be invalidated.

## [Reason for invalidation 3]

Since the detailed description of the Patent is not clear and sufficient enough to enable a person skilled in the art to carry out Inventions 1 to 5, the Patent was granted for a patent application which does not meet the requirements stipulated in Article 36(4)(i) of the Patent Act, falls under Article 123(1)(iv) of the same Act, and should be invalidated.

## [Reason for invalidation 4]

Since Inventions 1 to 5 exceed the scope stated in the detailed description of the Patent which is described in such a way that a person skilled in the art could recognize that a problem to be solved by the invention would be actually solved, the Patent was granted for a patent application which does not meet the requirements stipulated in Article 36(6)(i) of the Patent Act, falls under Article 123(1)(iv) of the same Act, and should be invalidated.

(3) The Demandant alleges that the Demandant is obviously "an interested party" and has eligibility as a Demandant.

(4) Evidence submitted by the Demandant is as follows.

A-1: Japanese Patent No. 3493002

A-2: U. S. Patent No. 4426908 Description

A-3: U. S. Patent No. 6202263 Description

A-4: Microfilm of Japanese Utility Model Application No. S54-182896 (Japanese Unexamined Utility Model Application Publication No. S56-97970)

A-5: U. S. Patent No. 4694541 Description

A-6: U. S. Patent No. 6419135 Description

A-7: Microfilm of Japanese Utility Model Application No. S48-34226 (Japanese Unexamined Utility Model Application Publication No. S49-135390)

A-8: Japanese Patent Application Publication No. S56-21862

A-9: Registered Utility Model Publication No. 3160573

A-10: U. S. Patent Application Publication No. 2012/0144631 Description

A-11: Microfilm of Japanese Utility Model Application No. S57-146705 (Japanese Unexamined Utility Model Application Publication No. S59-63098) A-12: The web page of "Spandex" in a free encyclopedia Wikipedia

A-13: Commentary on Patent Act [3rd Edition] Vol. 2, written and edited by Nakayama, Nobuhiro, Pages 1342 to 1343

A-14: Court Decision (Grand Court, 1917 (E) No. 565 The cases of demand for trademark invalidation)

A-15: 2014 partial amendment of the Patent Act, etc. Commentary on Industrial Property Right Law, edited by Japanese Patent Office General Affairs Department General Affairs Division System Deliberation Room, Pages 120 to 121

A-16: Interlocutory judgment (Intellectual Property High Court 2017 (Ne) 10049, the case of appeal on request for claiming damages) Excerpt (Pages 1 to 3, 53, and 70 to 72)

A-17: Court decision (Tokyo District Court The case of 1956 (Gyo-na) 48, the case of demand for revocation of trial decision of appeal decision in patent invalidity trial)

A-18: The plaintiff's ninth brief (Intellectual Property High Court 2017 (Ne) 10049, the case of appeal on request for claiming damages) Excerpt (Pages 1 and 9)

A-19: The defendant's first brief (Tokyo District Court The case of 2019 (Wa) 4944, the Patent right infringement injunction case) Excerpt (Pages 1 and 4)

A-20: Court decision (Intellectual Property High Court 2014 (Gyo-ke) 10131 a request to revoke the trial decision)

A-1 to A-12 were submitted attached to the written demand for trial, and A-13 to A-20 were submitted to the Demandant's statement brief. Also, A-13 to A-20 relate to eligibility as a Demandant.

With regard to the establishment of A-1 to A-20, there is no dispute between the parties (the Demandee column, "2" of First oral proceeding record).

2 Gist of the Demandee's allegation and evidence

(1) The Demandee demands the trial decision, "The request for trial of the case is groundless. The costs in connection with the trial shall be borne by the Demandant," and alleges that Reasons for invalidations 1 to 4 are not valid.

(2) The Demandee alleges that the Demandant is not "an interested party," and the Demandant lacks eligibility as a Demandant since it is against the principle of estoppel for the Demandant to demand a trial for invalidation of the patent right and the demand for invalidation trial of the case is illegal. (However, the Demandee, as described in (1) above, demands a trial decision to the effect that the appeal of this case is groundless, and

does not demand a trial decision stating that the appeal of this case is dismissed.)

(3) Evidence submitted by the Demandee is as follows.

B-1: Intellectual property High Court Decision in 2019 (Ne) 10049 (December 26, 2018 interlocutory judgment)

B-1 was submitted attached to the Demandee's statement brief, and relates to eligibility as a demandant.

With regard to the establishment of B-1, there is no dispute between the parties (the Demandant column "2" of First oral proceeding record).

No. 4 Regarding defense before the merits (eligibility as a demandant)

Since the Demandee alleges that the Demandant lacks eligibility as a demandant as a defense before the merits, eligibility as a demandant will be examined before proceeding with the merits.

1 Allegations of the parties

(1) The Demandee's allegation

A "Although it is stipulated that patent invalidation trial can be requested only by 'an interested party' (Article 123(2) of the Patent Act), the Demandant is a joint owner of the patent.

A patentee is in a position to benefit from the existence of the patent right, and is not in a position to suffer any disadvantage from the existence of the patent right. This does not change as long as even the joint owner of the patent right can independently carry out the patent invention in principle (Article 73(2) of the Patent Act). Certainly, although the implementation of the patent invention may be restricted if the joint owners otherwise agreed upon in a contract, this is just a disadvantage suffered by the existence of "otherwise agreements", and the existence of patent right does not necessarily lead to a disadvantage. Further, even if he/she suffers some disadvantage due to "otherwise agreements," needless to say, the disadvantage should be accepted as long as he/she has fully agreed to the "otherwise agreements" on the basis of his/her free will while fully knowing the contents of the patent invention. Therefore, the joint owners of the patent right have no interest in invalidating the patent right in which they have an interest." (The written reply of trial case, page 3, line 20 to page 4, line 12)

B "Further, since if one of the joint owners of the patent right approves a demand for invalidation trial, all of the joint owners must unitedly request the correction of the

invalidation request (Article 134-2(9) of the Patent Act, and Article 132(3) of the same Act); if the joint owner who has filed a demand for invalidation trial does not agree with the correction, it becomes possible to unilaterally interfere with the correction request that another joint owner tried to make, which is unfair. If we adopt the interpretation that the consent of the joint owner who has made a demand for invalidation trial is unnecessary for the correction request that another joint owner tried to make, this time, a correction request that does not reflect the intention of the joint owner who has made the demand for invalidation trial may be permitted. The fact that there is no provision in the Patent Act to deal with such various problems means that the Patent Act does not plan a demand for invalidation trial by joint owners of a patent right." (The written reply of trial case, page 4, lines 13 to 24)

C "As described above, since the joint owner of the patent right has no interest in invalidating the patent right in which he/she owns the interest, and it is not planned that the joint owner of the patent right demands for invalidation trial under the Patent Act, it has to be said that the joint owner of the patent right is not 'an interested party'.

Therefore, the demandant who is the joint owner of the patent right is not 'an interested party' who can demand for invalidation trial of the patent right, and lacks eligibility as a demandant". (The written reply of trial case, page 4, line 25 to page 5, line 1)

D "Furthermore, the Demandant, during the examination history of the application for the patent, had made various assertions toward the establishment of a patent to the Japan Patent Office. And on the premise that the Patent Right is valid, the Demandant has filed a lawsuit seeking damage claim, injunction, equity transfer registration procedures, etc. due to infringement of the patent right (pending department: Tokyo District Court, 46th division C section, Case number: 2019 (Wa) No. 4944) to NAGATA Makoto who is the Demandee and the company in which he is a representative director. The Demandant not only acknowledges that the patent right is valid, but also proactively exercises the right.

Therefore, it is obvious that the Demandant's demand itself for invalidation trial of the patent right is against the principle of estoppel, and there is no room for approval." (The written reply of trial case, page 5, lines 2 to 12)

E "As described above, since the Demandant is not "an interested part" and the Demandant's demand itself for invalidation trial of the patent right is against the principle

of estoppel, the demand for invalidation trial of the case is illegal and there is no room for approval." (The written reply of trial case, page 5, lines 13 to 16)

(2) Outline of the Demandant's allegation

A Under the current law, since there is no doubt that "a person who is actually sued for patent right infringement" is an interested party and since the Demandee has filed the case of 2017 (Ne) 10049 due to infringement of the patent right to the Demandant, it is obvious that the Demandant is an interested party. (The Demandant's statement brief, page 13, lines 7 to 17)

B Although it was determined that the Demandant, in the case of 2017 (Ne) 10049, infringed the patent since he/she violated otherwise agreements of Article 73(2) of the Patent Act relating to the patent, if the patent is retroactively invalidated, the act of the Demandant is not patent right infringement, and liability for damages to the Demandee will be also lost. Therefore, there is no doubt that the Demandant is an interested party. (The Demandant's statement brief, page 13, line 18 to page 14, line 11)

C Although a non-exclusive licensee is recognized as a person who has an interest in requesting a patent invalidation trial, since the Patent Act stipulates that if there is a non-exclusive licensee, a request for correction cannot be made without the consent of the non-exclusive licensee (Article 127 of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9)), it can be said that the Patent Act allows the situation in which the patentee cannot make a request for correction because the demandant of the invalidation trial does not approve. Therefore, allegation by the demandant due to the interference with the correction request by the patentee is groundless. (The Demandant's statement brief, page 14, line 12 to page 15, line 12)

D Since the Demandee reiterates that in the relationship between the Demandant and the Demandee, the Demandant's patent interest should be treated as already deprived, in the case of 2017 (Ne) 10049 and the case of 2019 (Wa) 4944, in this case, it cannot be admitted that on the assumption that the Demandant is a registered joint owner of the patent right, he/she is not an interested party, and it is obvious that it is not permissible for the Demandee to contest the Demandant's interests in this case as contrary to estoppel or principles of faith. (The Demandant's statement brief, page 15, line 13 to page 16, line 11)

E In this case, even if the demand for invalidation trial is not accepted since the Demandant is the patentee and thus does not have an interest, immediately, an invalidation trial will be filed by the trader who purchases the products of the Patent from the Demandant, and even in this invalidation trial, the fact that the Demandee cannot make a correction request is no different from this invalidation trial. Therefore, it can be said that recognizing the interests of the Demandant in this case and arguing that the patent is valid or invalid will lead to the resolution of the dispute. (The Demandant's statement brief, page 16, lines 12 to 21)

#### 2 Judgment by the body

#### (1) Regarding an interest

A Since the revision by Act No. 36 of 2014 makes it possible that a patent invalidation trial can be conducted only by "an interested party," and since a system of an opposition to a granted patent that can be made by "any person" was introduced, at the present, it must be understood that only a person who has an interest in invalidating a patent can request a patent invalidation trial. However, as long as there is still a possibility of patent infringement being a problem, those who may be posed such a problem have an interest in invalidating the patent and have the benefit of filing a patent invalidation trial.

The case of Intellectual Property High Court 2017 (Ne) 10049 is a lawsuit seeking the injunction of the manufacture and sale of the appellee's products in which NAGATA Makoto who is one of the Demandees is the appellant and TWINS CORPORATION of the Demandant is the appellee. In the Intellectual Property High Court, an interlocutory judgment (A-16, and B-1) with a main text that "among the claims of this lawsuit, there is a reason for the claim for damages based on the tort of infringement of the patent right (joint ownership of the appellant) (excluding a few points)..." was passed on December 26, 2018, and the case is still pending. (The Demandee's statement brief, page 5, line 13 to page 6, line 17).

Then, at the conclusion of the trial, the Demandant is a person who has a pending relationship with the Demandee regarding the patent right, and in addition to the fear that the infringement of the patent right will be a problem, the infringement of the patent right is currently a problem. Therefore, since the Demandant has legal benefits in invalidating the Patent (see 1(2)B above), it can be said that he/she has an interest in demanding for invalidation trial.

B The Demandee generally alleges that the Demandant, who is the joint owner of the patent right, has no interest in invalidating the patent right to which he has an interest (see

1(1)A above).

However, since in the interlocutory judgment of 2017 (Ne) 10049, it is said that there is a reason for the claim for damages based on the tort of infringement of the patent right (joint ownership of the appellant), even if the Demandant is the joint owner of the patent right, there is a legal benefit to invalidating the patent, so that it should be said that the Demandant has an interest in demanding for invalidation trial of the Patent.

Therefore, the allegation of the Demandee discussed above cannot be accepted.

(2) Regarding the relationship between the demand for invalidation trial and the request for correction by the joint owner of the patent right

A The Demandee generally alleges that although all of the joint owners must unitedly request the correction of the invalidation request (Article 132(3) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the same Act.), if the joint owner who has filed a demand for invalidation trial can unilaterally interfere with the correction request that another joint owner tried to make, this would be unfair, and on the other hand, if the consent of the joint owner who has made a demand for invalidation trial is unnecessary for the correction request that another joint owner that another joint owner tried to make, a correction request that does not reflect the intention of the joint owner may be permitted (see 1(1)B above). Thus, the following is examined.

B Article 132(3) of the Patent Act provides that "when a joint owner of a patent right or a right to obtain a patent requests a trial for the right pertaining to the sharing, all joint owners must unitedly request," since the trial decision on the right to share has to be decided unanimously for all the joint owners.

Further, regarding a request for correction in invalidation trial, the Patent Act provides that all joint owners must unitedly request, by Article 132(3) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the same Act.

Although regarding this case, it is understood that it is impossible for all the joint owners to unitedly act on the treatment of the patent, at the conclusion of the trial, there is no change in sharing the Patent between the Demandant and the Demandee.

Therefore, in this case as well, if a request for correction is made, all the joint owners must unitedly make a request.

Although the Demandee alleges that if the joint owner who has filed a demand for invalidation trial can unilaterally interfere with the correction request that another joint owner tried to make, this would be unfair, even if it is not a case that the joint owner of the patent right requests a trial for invalidation as in this case, it is usually assumed that the joint owners do not agree on a request for correction. The fact that the benefit of the correction cannot be obtained if the joint owner's cooperation is not obtained is supposed by the Patent Act, so that is it impossible to deny the eligibility as a Demandant of the joint owner who made the request for invalidation trial base on this matter alone.

## (3) Regarding estoppel

A In overview, the Demandant is a person who has made various allegations toward the establishment of a patent in the examination process of the patent application, and the patent right is valid, the Demandee filed a lawsuit (2019(Wa) No. 4944) seeking damage claim, injunction, equity transfer registration procedures, etc. due to infringement of the patent right to NAGATA Makoto who is the Demandee and the company in which he is a representative director. Therefore the Demandee alleges that the Demandant's demand itself for invalidation trial of the patent right is against the principle of estoppel, and there is no room for approval (see 1(1)D above). Thus, the following is examined.

B At the conclusion of this case, the Demandant's interests differed greatly from the examination process in that the lawsuit was pending with the Demandee, and in particular, since in the interlocutory judgment of 2017 (Ne) 10049, and it is said that there is a reason for the claim for damages based on the tort of infringement of the patent right (joint ownership interest of the appellant), it is not unreasonable for the Demandant to act to invalidate the patent in order to avoid the illegal act of infringement of the patent right (the joint ownership interest of the Demandee) (see 1(2)B above). Then, even if the Demandant has made various allegations toward the establishment of a patent in the examination process of the patent application, considering the transition of interests to the existence of the patent in the meantime, it cannot be immediately said that the Demandant's attitude is contrary to the doctrine of estoppel.

Further, even if the Demandant has filed a lawsuit seeking damage claim, or equity transfer registration procedures, etc. due to infringement of the patent right against the Demandee, since it is understood that the lawsuit and the invalidation trial are in line with each other in attacking the joint ownership interest of the Demandee in order to avoid the tort of infringement of the patent right (joint ownership interest of the Demandee), it cannot be said that it is an attitude without faith to claim the invalidation trial while filing the lawsuit, and it cannot be said that this violates the doctrine of estoppel.

As described above, the allegation of the Demandee discussed above cannot be accepted.

(4) Closing regarding eligibility as a demandant

As described above, the Demandant is a joint owner of the patent right, but falls under the category of "an interested party" stipulated in Article 123(2) of the Patent Act. Then, since it is not against the principle of estoppel that the Demandant requests an invalidation trial of the patent, the Demandant has the eligibility as a demandant for the invalidation trial.

No. 5 Judgment by the body about Reason for invalidation 1 (Article 29(1)(iii) of the Patent Act) and Reason for invalidation 2 (Article 29(2) of the Patent Act)

1 Descriptions in Evidence A

(1) Description of A-1, Invention A-1

A-1 that is a publication distributed prior to the filing date of the Patent describes the following.

A [0001]

"This invention relates in general to elastic cordage for fastening or holding objects in place. In particular, the invention relates to elastic cordage for threading through an opening, such as an eyelet, for use in fastening or holding various objects such as clothing items, including shoes, hats, shirts, pants, coats, belts, watchbands, and the like, packaging such as bags, back packs, satchels, and the like and various other items which are conventionally held or fastened by rope, string, thread, cloth, bungee cords, and the like."

B [0008]

"FIGS. 1-4 illustrate generally at 10 a draw-tight elastic cordage in accordance with one preferred embodiment of the invention. A cordage 10 comprises an elongate elastic core 12 about which a flexible sheath 14 is fitted. In the illustrated embodiment where the cordage is for use with eyelets 16 having an opening 17 in an article of clothing, such as a shoe, the core can be formed with a solid cylindrical shape, as shown in the cross section of FIG. 3. As desired, other shapes could be employed for the cordage. Thus, the core could be tubular, or it could be a flat band in which the core has an oval or rectangular shape in cross section. Shoestring tips 18, which can be of conventional plastic or metal design, can be attached to opposite ends of the cordage."

C [0009]

"A sheath 14 is formed with a plurality of end-to-end segments 20 and 22. Each segment has a mid-portion 28, 28', and a pair of end portions 30 and 32 which straddle the mid-portion. As shown in FIG. 2 adjacent segments share end portions. For example, the end portion 30 is shared by the segment 20 and the adjacent segment 22 of

which mid-portion 28' is shown. The end portions are anchored with the core, while the mid-portions are detached from the core to enable outward flexible bulging or expansion into torus-shaped enlargements 36 and 38 as shown in FIGS. 1 and 4."

D [0010]

"The core 12 is formed of an elastic material, such as rubber or a suitable synthetic polymer, which elongates when stressed under tension, such as by the user pulling on an end or both ends of the cordage. An example is a core formed of rubber. In the embodiment of FIGS. 1-4, a flexible sheath 14 is formed of a braided matrix comprising threads of a suitable material such as cotton, polyester, nylon, acrylic, or elastic rubber such as Spandex (Registered trademark)."

E [0011]

"The cordage 10 of the embodiment of FIGS. 1-4 can be manufactured by a process which includes a first stretching core 12 so that the applied stress is below the material's critical stress. This ensures that non-recoverable plastic deformation does not occur. The stretching causes a portion of the core to elongate to a length L2, as shown in FIG. 2. Also in the stressed condition, the core has an outer diameter D2. A braiding machine, which can be of conventional design, is then employed to weave or braid threads or strands about the core. The machine is operated to create alternating first and second braid patterns along the core's length. First braid patterns 40 and 42, for the respective end portions 30 and 32, are formed with a braid which is sufficiently tight to frictionally grip or anchor with the core when the core is relaxed. Second patterns 44 and 46, for the respective mid-portions 28 and 28', are formed with a braid which is sufficiently loose to enable the sheath to be detached from the core. These braid patterns cause the segments 20-26 extending along the cordage to alternate between end portions anchored to the core and the mid-portions which are detached from it."

F [0012]

"After the braiding operation is completed, the tensile stress is removed to thereby enable the cordage to assume its relaxed state as shown in FIGS. 1 and 4. In this state the core segment length contracts to L1, while the core's outer diameter expands to D1. In each segment, the contraction of the core causes both end portions of the sheath to move toward each other, which in turn pushes against the mid-portion to cause it to bunch up and expand or flex outwardly to the diameter D3. Appropriate selection of the core and sheath material type, size, and proportions results in D3 being sufficiently large relative to the inner diameter of an eyelet opening 17 so that the bunched up mid-portions resist the movement of the cord in one direction through the opening. Thus, as shown in FIG. 1, the bunched up mid-portion forming an enlargement 36 is larger than the inner diameter of the opening 17 to resist the inward movement of the cordage through the eyelet. When there is another similarly bunched up mid-portion (not shown) on the other side of the eyelet in FIG. 1, then it would prevent the cordage from being drawn through in the opposite direction. As used herein, "resist" means the case where the enlarged mid-portion is blocked from movement under normal use, but which may allow the mid-portion to be squeezed down and pass through the opening when there is an abnormal force from the eyelet pressing against the enlarged mid-portion. This ties down or otherwise secures the portion of the shoe upper or clothing, pack, or other device, as long as the cordage is in a relaxed state; namely, in an unstressed state."

G [0013]

"When it is desired to release the cordage, the user simply pulls on one or both ends of the cordage to apply sufficient tension so that core elongates toward its length L2 > L1, while the core contracts toward a diameter D2 < D1. The elongation of the core in each segment pulls the sheath end portions apart. This in turn stretches the midportion which contracts from the diameter D3 to a size which is smaller than the opening 17. The cordage can then be threaded through the opening to either release or readjust the article or device being fastened or tied down."

H [0014]

"An example in accordance with the invention for use as a shoestring is a cordage which, in an unstressed state, has the required length for threading through each of the eyelets of the shoe upper; for example, a length of 650 mm for an adult sized shoe with six eyelets on each side of the upper. In its unstressed state, it has a core diameter D1=4 mm, and the bunched-up enlargement 38 has an outer diameter D3=8 mm. One end of the cordage which is threaded through an upper eyelet on one side can, as an example, have a length L1=100 mm. A pulling tensile stress applied to this end causes the core to elongate to a length L2=200 mm and contract to a diameter D2=3 mm. Each of the mid-portions in this end of the cordage fits in closely about the elongated core, then contracts back to a size which is sufficient to allow the cordage to then be threaded through the eyelet."

I [FIG. 1]

"



"

J [FIG. 2]

"



"

K [FIG. 3]

"



"

L [FIG. 4]

"



In light of all the above, it can be said that A-1 describes the following invention (hereinafter, referred to as Invention A-1").

"An elastic cordage 10 to be threaded through an opening 17,

which is made from an elongate elastic core 12 about which a flexible sheath 14 is fitted,

wherein the sheath 14 is formed with a plurality of end-to-end segments 20 and 22;

each segment 20, 22 has a mid-portion 28, 28', and a pair of end portions 30 and 32 which straddle the mid-portion 28, 28';

the end portions 30 and 32 are fixed to the core 12;

the mid-portions 28 and 28' are detached from the core 12 to enable outward expansion toward enlargements 36 and 38;

the core 12 is formed of an elastic material which elongates when stressed under tension by a user pulling on an end or both ends of the cordage 10;

the flexible sheath 14 is formed of a braided matrix comprising threads such as elastic rubber such as Spandex (Registered trademark);

in a relaxed state of the cordage 10, the mid-portions 28 and 28' are bunched up, and the enlargements 36 and 38 expanded outward to a diameter D3 larger than an inner diameter of the opening 17 are formed;

when a user pulls on one or both ends of the cordage 10 to apply sufficient tension so that the core 12 elongates, while the diameter thereof contracts, the elongation of the core 12 in each segment pulls the end portions 30 and 32 of the flexible sheath 14 apart, and this in turn stretches the mid-portions 28 and 28' to make the mid-portions 28 and 28'contract from the diameter D3 to a size which is smaller than the opening 17."

(2) Description of A-2

A-2 that is a publication distributed prior to the filing date of the Patent describes the following. Further, a translation was prepared by the body on the basis of a partial translation of A-2 submitted by the Demandant.

A Column 2, lines 23 to 27

"The core 2 consists of a non-continuous, non-stretchable line 3, having a thickness to be selected depending on the application and on the tension load it is meant to be subjected to."

B Column 2, lines 40 to 41

"The segments 3' of the line 3 arranged between the mounting joints 6 ..... "

C Column 2, lines 46 to 56

"If a tension force is caused to act upon the tension member, the jacket 1 and the core 2 are extended and brought from the state of FIG. 1 into the state of FIG. 2. Applying tension onto the elastic members 5 causes the segments 3' to be pulled along. As soon as elastic members 5 reach their predetermined load limit, the segments 3' become subjected to tension and the tension force becomes transferred to the line 3. After surpassing the load limit of the elastic members, the line 3, together with the tightly stretched segments 3', takes over the entire load."

## D Column 2, lines 64 to 66

"The jacket 1 is produced by means of known machines in operations such as plaiting, twisting, and the like, as is customary in ropemaking."

E FIGS. 1 to 3

••

"



#### (3) Description of A-3

A-3 that is a publication distributed prior to the filing date of the Patent describes the following. Further, a translation was prepared by the body on the basis of a partial translation of A-3 submitted by the Demandant.

A Column 6, line 56 to column 7, line 3

"Referring to FIG. 13, an alternative embodiment for the device 10 is shown. In this embodiment, the elastic member 12 is embodied as a latex or rubber tube. The elastic member 12 has an inner cavity 14 running along the longitudinal length of the member 12 as in previous embodiments. An inner member 54 is disposed within the inner cavity 14. The inner member 54 has less elasticity than the elastic member 12. In one embodiment, the inner member 54 may be embodied as a rope or string.

The inner member 54 is secured at both ends proximate to the ends of the elastic member 12. The inner member 54 may also have a greater longitudinal length than the elastic member 12. The inner member 54 provides the stretchable limitation to the elastic member 12."

B FIG. 13

"

..

FIG. 13

(4) Description of A-4

A-4 that is a publication distributed prior to the filing date of the Patent describes the following.

A Page 3, line 10 to page 4, line 11

"...a core wire (1) is reduced in length by an undulation processing, and is embedded in a coating (4) of an elastic body, and thus, if fishing is carried out while the buffer string is held by being caught at a necessary point of the tuna fishing line and the force applied to the fishing line is normal, the buffer operation is performed by the coating (4) of the elastic body expanding/contracting within the range where the core wire (1) holds the slack. However, when the coating (4) of the elastic body is extended until the force applied to the fishing line increases and slack of the core wire (1) is eliminated, the core wire (1) receives the force to protect the coating..., the core wire is rounded off to the coiled form, ..."

#### (5) Description of A-5

A-5 that is a publication distributed prior to the filing date of the Patent describes the following. Further, a translation was prepared by the body on the basis of a partial translation of A-5 submitted by the Demandant.

A Column 3, lines 5 to 19

"Referring to FIG. 2, a pair of enlargements, such as knots 11, are formed in the rope 9. A sleeve 13 of elastic material is slid over the rope. The length of the sleeve 13 is preferably about 3 to 4 inches, and the distance between the two knots is greater than the length of the sleeve. The sleeve is positioned over the rope such that the two knots and the rope slack portion 15 between the knots lie within the sleeve. Both sleeve ends are then crimped tightly over the rope, as with split rings 17. As a result, the knots and slack 15 are captured inside the sleeve, and the rope is divided into a first standing end 19 and a second standing end 11 that extend in opposite directions from the sleeve. To aid the tie-down 1 grip a member 3, the second standing end 21 is fastened to a conventional hook 23, ...... "

B FIGS. 2 to 3



(6) Description of A-6

A-6 that is a publication distributed prior to the filing date of the Patent describes the following. Further, a translation was prepared by the body on the basis of a partial translation of A-6 submitted by the Demandant.

A Column 5, lines 39 to 43

"The support cord has an outer sheath 50 housing an inner cord 52 within it. The outer sheath is preferably a rubber-like type of flexible tubular material. This outer sheath of flexible tubing stretches under increasing tension to approximately double its unstretched length."

B Column 6, lines 21 to 25

"Within the outer sheath 50, an inner cord 52 is included in the support cord 20, of the present invention, as shown in FIGS. 5 and 7, and detailed in FIGS. 8 through 11. The non-stretchable inner cord limits the stretching of the outer sheath to a specific and preset length."

C FIG. 5

"



(7) Description of A-7

A-7 that is a publication distributed prior to the filing date of the Patent describes the following.

A Page 3, line 20 to page 4, line 14

"...a leader for fishing having a fishing line which is shorter than a breaking length of a rubber tube is spirally installed inside a stretchable rubber tube, and both ends of the fishing line are tied to hooks fixed to both ends of the rubber tube..., when a shocking force is applied to the fishing line when catching a fish, the rubber tube (1) stretches and buffers this force, and the fishing line does not break. Needless to say, even if the rubber tube (1) stretches due to this force, the spiral fishing line inside will stretch linearly, and it is possible to prevent the rubber tube (1) itself from breaking."

B FIGS. 1 to 2



第1図 FIG.1 第2図 FIG.2

"

#### 2 Regarding Invention 1

(1) Regarding the interpretation of "configures cores of the humps" of Invention 1

Regarding the interpretation of "configures cores of the humps" of Invention 1, since there is a dispute between the parties, this point will be examined first.

#### A Description of the Patent Specification

The description of the Patent Specification describes cores of humps as follows. (A) [0028]

"FIG. 7 is a diagram showing an outline of a string of this embodiment. As shown in this figure, the string of this embodiment is basically similar to that of the string described in Embodiment 1. A central 'tube part' 0703 constituted by a tubular structure of a string body is made of a non-stretchable material, and has 'a central string' 0705 which is made of a non-stretchable material, and which is rounded at 'a hump corresponding part' 0704 so as to follow a change in the distance of both ends of a hump corresponding to a change in the diameter of a hump. By employing such a configuration having such characteristics as described above, it is possible to prevent the hump portion of the string body from being difficult to restore as a result of repeated use of the string...."

#### (B) [0030]

"The central string' has a function of following the change in the distance between both ends of the hump according to the change in the diameter of the hump, and is rounded at the hump corresponding part to constitute a core of the hump. "The change in the distance between both ends of the hump according to the change in the diameter of the hump' refers to the characteristics of the string of the present invention in which the large and small axial tensions are applied to the string body to change the diameter of the hump and the distance between both ends of the hump according to the change in the distance. "The function of following' such a change means, for example, that if the distance between both ends of the hump is shortened, the rounded part of the central string is rounded so as to be further contracted, and if the distance between both ends is increased, the rounded part of the central string is expanded. Here, the rounded part of the central string is provided at a part corresponding to the hump of the string body. According to this structure, the elastic material forming the string body forms a hump along the hump corresponding part of the central string while tension is not applied, so that the hump corresponding part functions as a core for forming humps. Then, by having the central string that functions as a core on the inside, the hump can be kept sufficiently rigid to withstand repeated use. In order for the central string to function as the core of the hump, it is necessary that the position of the hump corresponding part is not displaced. In order to secure the function as a core of such a hump, the central string is required to connect the corresponding parts of the respective humps, and to take a string-like structure fixed to the string at the ends of the string, for example."

#### B Outline of the Demandant's allegation

The requirement of "configures cores of the humps" of Invention 1 does not have significance as a separate component in addition to the requirement of "a central string rounded at a hump corresponding part" (the Demandant's statement brief, page 4, line 16 to page 6, line 12).

## C Summary of the Demandee's allegation

In Invention 1, in order for the central string to "configure cores of the humps," it is required that the hump corresponding part of the central string functions as a core for forming humps, the hump can be kept sufficiently rigid to withstand repeated use, and the position of the hump corresponding part is not displaced (the Demandee's statement brief, page 3, line 5 to page 5, line 8).

#### D Examination

According to the description that "in order for the central string to function as the core of the hump, it is necessary that the position of the hump corresponding part is not displaced" of Paragraph [0030] (see A(B) above), even if the central string is rounded at the hump corresponding part, when the hump corresponding part is displaced, it is understood that the central string does not function as the core of the hump. Then, if the central string rounded at the hump corresponding part does not function as the core of the humps, it is obvious that it cannot be said that it "configures cores of the humps," and thus it can be said that the requirement of "configures cores of the humps" of Invention 1 should be grasped as one further specifying "the central string" in addition to the requirement of "rounded at the hump corresponding part". Therefore, the Demandant's

allegation (see B above) cannot be accepted.

Further, it is reasonable to understand that the fact that the central string "functions as a core" of the hump means that the hump corresponding part of the central string functions as a core for forming humps, according to the description that "here, the rounded part of the central string is provided at a part corresponding to the hump of the string body. According to this structure, the elastic material forming the string body forms a hump along the hump corresponding part of the central string while tension is not applied, so that the hump corresponding part functions as a core for forming humps" of Paragraph [0030] (see A(B) above).

Furthermore, according to the description that "then, by having the central string that functions as a core on the inside, the hump can be kept sufficiently rigid to withstand repeated use" of Paragraph [0030] (see A(B) above), it is understood that the central string that functions as the core of the hump enables the hump to keep sufficient rigidity to withstand repeated use.

Then, in Invention 1, in order for the central string to "configure cores of the humps," as the Demandee alleges (see C above), the following (A) to (C) should be required.

(A) The hump corresponding part of the central string functions as a core for forming humps.

(B) The hump can be kept sufficiently rigid to withstand repeated use.

(C) The position of the hump corresponding part is not displaced.

(2) Comparison

Considering the interpretation of (1) above, Invention 1 and Invention A-1 are compared.

A A plurality of "mid-portions 28 and 28" of Invention A-1 are provided on a flexible sheath 14, in a relaxed state of the cordage 10, are bunched up to form the enlargements 36 and 38 expanded outward, and contract to a size which is smaller than the opening 17 when a user pulls on one or both ends of the cordage 10. Therefore, the mid-portions 28 and 28' correspond to "humps" of Invention 1 as long as they are "repeatedly arranged at intervals" and "whose diameter changes".

B Since "a flexible sheath 14" of Invention A-1 is formed of a braided matrix comprising threads of elastic rubber such as Spandex (Registered trademark) fitted in an elongate core 12, it corresponds to "a tubular string body made of a stretchable material"

of Invention 1.

C "A core 12" of Invention A-1 corresponds to "a central string" of Invention 1 as long as it is equipped "at a center tube part configured by a tubular structure of the string body".

D "An elastic cordage 10" of Invention A-1 corresponds to "a string" of Invention 1.

E According to the above, Invention 1 and Invention A-1 are in correspondence in the following Corresponding Feature, and are different in the following Different Feature 1 to Different Feature 3.

## <Corresponding Feature>

#### "A string comprising:

a tubular string body made of a stretchable material which has humps repeatedly arranged at intervals and whose diameter changes; and

a central string at a center tube part configured by a tubular structure of the string body".

#### <Different Feature 1>

In Invention 1, the change in a diameter of "a hump" is caused by "the magnitude of axial tension applied to" "humps of a tubular string body" "themselves," whereas, in Invention A-1, "the elongation of the core 12 pulls the end portions 30 and 32 of the flexible sheath 14 apart, and this in turn stretches the mid-portions 28 and 28' to make the mid-portions 28 and 28' contract from the diameter D3 to a size which is smaller than the opening 17," and it is caused by the magnitude of tension to be applied to "a core 12" corresponding to "a central string" of Invention 1.

## <Different Feature 2>

In Invention 1, the central string is made of "a non-stretchable material," whereas, in Invention A-1, the core 12 is made from "an elastic material".

## <Different Feature 3>

In Invention 1, the central string "configures cores of the humps, and is rounded at hump corresponding parts so as to follow the changes in a distance between both hump ends according to the changes of a hump diameter," whereas, in Invention A-1, the core 12 does not configure the cores of the humps, does not follow the changes in a distance between both hump ends, and is not rounded at hump corresponding parts.

#### F Demandant's allegation

(A) The Demandant, in page 7, line 12 to page 9, line 19 of the Demandant's statement brief, according to the specific constitution that "the elongation of the core 12 pulls the end portions 30 and 32 of the flexible sheath 14 apart, and this in turn stretches the mid-portions 28 and 28' to make the mid-portions 28 and 28' contract from the diameter D3 to a size which is smaller than the opening 17" also in Invention A-1, alleges that "a diameter of a hump changes depending on 'the magnitude of axial tension to be applied to themselves," as a result, and thus Different Feature 1 does not exist.

However, in Invention A-1, in a relaxed state of the cordage 10, the mid-portions 28 and 28' of the flexible sheath 14 loosen to be bunched up, and on the other hand, the elongation of the core 12 pulls the end portions 30 and 32 of the flexible sheath 14 apart and this in turn stretches the mid-portions 28 and 28' of the flexible sheath 14, so that from the relaxed state until the mid-portions 28 and 28' of the flexible sheath 14 are in the tensioned state, "axial tension" is not "applied to" the mid-portions 28 and 28' themselves of the flexible sheath 14.

Then, according to the description that "regarding the hump, 'the size of the diameter changes depending on the magnitude of the axial tension applied to itself' specifically means that the larger the axial tension, the smaller the diameter, and the weaker the tension, the larger the diameter becomes so that the decreased diameter returns" of Paragraph [0015] of the Specification, although it is understood that "the hump whose diameter changes depending on the magnitude of the axial tension applied to itself" of Invention 1 means "the hump in which the larger the axial tension applied to itself, the smaller the diameter, and the weaker the tension, the larger the diameter becomes so that the decreased diameter, and the weaker the tension, the larger the diameter becomes so that the decreased diameter, and the weaker the tension, the larger the diameter becomes so that the decreased diameter returns," as described above, in Invention A-1, while the flexible sheath 14 has the humps, from the relaxed state until the mid-portions 28 and 28' of the flexible sheath 14 are in the tensioned state, "axial tension" is not "applied to" the mid-portions 28 and 28' themselves. Therefore, the diameter of the hump changes regardless of "axial tension applied to itself".

Furthermore, in Invention A-1, when the mid-portions 28 and 28' of the flexible sheath 14 are in the tensioned state, there are no humps, and at this point, "axial tension" is "applied to" the mid-portions 28 and 28' themselves. However, after that point, even if the "axial tension" increases, the humps have already disappeared, and it cannot be said that the diameter of the hump changes according to "axial tension applied to itself".

Hence, it cannot be said that Invention A-1 has "the hump whose diameter changes

depending on the magnitude of the axial tension applied to itself".

Therefore, the Demandant's allegation described above cannot be accepted.

(B) The Demandant, on page 10, lines 1 to 5 of the Demandant's statement brief, regarding Different Feature 3, alleges that the requirement of "configures cores of the humps" should not be thought as a unique constituent component in addition to the requirement of "rounded at the hump corresponding part," and thus this point is not a different feature.

However, as shown in (1) D above, the requirement of "configures cores of the humps" of Invention 1 should be grasped as the one further specifying "the central string", in addition to the requirement of "rounded at the hump corresponding part," and thus the Demandant's allegation described above cannot be accepted.

(C) The Demandant, on page 10, line 6 to page 12, line 6 in the Demandant's statement brief, regarding Different Feature 3, alleges that since Invention A-1 describes that by expanding and contracting the cordage, the diameter of the hump changes from D2 to D3, the distance between both ends that are the end portion 30 and the end portion 32 of the hump changes according to the change in the diameter, and the elastic core expands and contracts following this, the point "follow the changes in a distance between hump both ends according to the changes of a hump diameter" is not a different feature.

Incidentally, since Invention 1 includes "the string body" having "the hump whose diameter changes depending on the magnitude of the axial tension applied to itself," it is reasonable to interpret that "the changes of a hump diameter" of Invention 1 mean the change when the size of the diameter changes with the magnitude of the axial tension applied to the hump itself. It can be said that such an interpretation is consistent with the description that "The change in the distance between both ends of the hump according to the change in the diameter of the hump' refers to the characteristics of the string body to change the diameter of the hump and the distance between both ends of the hump according to the change in the distance" of Paragraph [0030] in the Specification of the Patent.

Then, as shown in (A) above, since it cannot be said that Invention A-1 has "the hump whose diameter changes depending on the magnitude of the axial tension applied to itself," it cannot be said that "the changes of a hump diameter" of Invention 1 occur, and therefore it cannot be said that the central string (core 12) "follows the changes in a distance between hump both ends according to the changes of a hump diameter".

Therefore, the Demandant's allegation described above cannot be accepted.

#### (3) Examination on Different Features

A Regarding Different Feature 1

Different Feature 1 is a difference in causes that cause changes in the size of the diameter of the hump between Invention 1 and Invention A-1, and is therefore a substantial different feature.

Then, in Invention A-1, the elongation of the core 12 results in the end portions 30, 32 of the flexible sheath 14 being pulled apart, and according to the description that "in each segment, the contraction of the core causes both end portions of the sheath to move toward each other which in turn pushes against the mid-portion to cause it to bunch up and expand or flex outwardly to the diameter D3." of Paragraph [0012] of A-1 (see 1(1)F above), it is understood that the contraction of the core 12 results in both end portions of the sheath 14 moving toward each other. If assuming the hump (mid-portions 28, 28') of Invention A-1 as the one whose diameter changes "depending on the magnitude of axial tension applied to itself," the relationship between the above causes and effects is lost. Therefore, in Invention A-1, even considering the descriptions 28, 28') as the one whose diameter changes "depending on the magnitude of axial tension applied to assume the hump (mid-portions 28, 28') as the one whose diameter changes "depending on the magnitude of axial tension applied to assume the hump (mid-portions 28, 28') as the one whose diameter changes "depending on the magnitude of axial tension applied to itself".

Therefore, in Invention A-1, even considering the descriptions of A-2 to A-7, it cannot be said that a person skilled in the art could have been easily conceived of assuming the hump (mid-portions 28, 28') as the one whose diameter changes "depending on the magnitude of axial tension applied to itself".

## **B** Regarding Different Feature 2

Different Feature 2 is a difference in the characteristics of the material between the central string of Invention 1 and the core 12 of Invention A-1, and is therefore a substantial different feature.

As shown in A above, although it is understood that in Invention A-1, the elongation of the core 12 results in the end portions 30, 32 of the flexible sheath 14 being pulled apart, and the contraction of the core 12 results in both end portions of the sheath 14 moving toward each other, if the core 12 of Invention A-1 is made of "a non-stretchable material" with poor stretchability, the elongation and contraction of the core 12 which result in the above-mentioned result are prevented, and the original function of Invention A-1 may be impaired. Thus, in Invention A-1, even considering the descriptions of A-

2 to A-7, it must be said that it is not motivated to an elastic material of the core 12 is "a non-stretchable material" with poor stretchability.

Therefore, in Invention A-1, even considering the descriptions of A-2 to A-7, it cannot be said that a person skilled in the art could have been easily conceived of using "a non-stretchable material" with poor stretchability as an elastic material of the core 12.

C Regarding Different Feature 3

Different Feature 3 is an obvious difference in constitution between the central string of Invention 1 and the core 12 of Invention A-1, and is therefore a substantial different feature.

Then, there is no description or suggestion of "the central string" that "configures cores of the humps" (see (1)D above) in any of A-1 to A-7.

Furthermore, as shown in A above, although it is understood that in Invention A-1, the contraction of the core 12 results in both end portions of the sheath 14 moving toward each other, if the core 12 "is rounded at hump corresponding parts so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter" in Invention A-1, the contraction of the core 12 which results in the abovementioned result is prevented, and the original function of Invention A-1 may be impaired. Thus, in Invention A-1, even considering the descriptions of A-2 to A-7, it must be said that it is not motivated that the core 12 "is rounded at hump corresponding parts so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter".

Therefore, in Invention A-1, even considering the descriptions of A-2 to A-7, it cannot be said that a person skilled in the art could have been easily conceived of the core 12 that "configures cores of the humps, and is rounded at hump corresponding parts so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter".

#### D Summary

As described above, since Different Features 1 to 3 are all substantial different features, Invention 1 is not identical with Invention A-1. Further, Invention 1 could not have been easily invented by a person skilled in the art, on the basis of Invention A-1 and the descriptions of A-2 to A-7.

(4) Preliminary examination in the case based on Invention A-1 No. 1 alleged by the Demandant

Since the Demandant alleges that A-1 No. 1 described the following <Invention A-1 No. 1> (the written demand for trial, page 17, lines 9 to 21), and Different Features between Invention 1 and Invention A-1 No. 1 are the following <Different Feature 1'> and <Different Feature 2'> (the written demand for trial, page 28, lines 13 to 18), the case based on Invention A-1 No. 1 will be also preliminarily examined. However, "Different Feature 1" and "Different Feature 2" alleged by the demandant are respectively restated as "Different Feature 1" and "Different Feature 2".

<Invention A-1 No. 1>

A string comprising:

a flexible sheath made of an elastic material,

which has humps a-1 repeatedly arranged at intervals and whose diameter changes depending on the magnitude of axial tension applied to themselves; and

a core which is made of an elastic material at a center tube part configured by a tubular structure of the flexible sheath,

configures cores of the humps, and

configured to follow the changes in a distance between hump both ends according to the changes of a hump diameter.

## <Different Feature 1'>

In Invention 1, the central string is made of "a non-stretchable material," whereas, in Invention A-1 No. 1, it is made of "an elastic material".

## <Different Feature 2'>

In Invention 1, the central string is "rounded at hump corresponding parts," whereas, Invention A-1 No. 1 does not have such a limitation.

Also, regarding "configures cores of the humps," if adopting the interpretation of (1) B above that the demandant alleges, in Invention A-1 No. 1, the core is not "rounded at hump corresponding parts," and thus cannot be said as the one "configures cores of the humps". Although the difference of "configures cores of the humps" should be added to Different Feature 2', this point will be left for the time being.

# A Regarding Different Feature 1'

The Demandant, in the written demand for trial, page 30, line 5 to page 37, line 5, and page 45, lines 1 to 6, according to the descriptions of A-2 to A-7, assuming that it is

the well-known art that "in a member having a hump whose diameter changes depending on the magnitude of the axial tension applied to itself, at a center tube part configured by a tubular structure of the member, a core of the hump is configured, and a non-stretchable member is disposed as the core configured to follow the changes in a distance between hump both ends according to the changes of a hump diameter" (hereinafter, referred to as "Well-known art 1", further, in the written demand for trial, 1 is a circled number), alleges that since changing "an elastic material" configuring the core of Invention A-1 No. 1 to non-stretchable is merely a matter of common general technical knowledge of a person skilled in the art according to Well-known art 1, Different Feature 1' is not a substantial different feature, or Different Feature 1' is merely a design change based on Well-known art 1. Therefore, it will be examined as follows.

First, since the member having the hump is not described in A-3, A-4, and A-6, it is obvious that A-3, A-4, and A-6 do not become evidence of Well-known art 1. Further, the Demandant stated that A-2, A-5, and A-7 have a hump (the written demand for trial, page 31, lines 5 to 10, page 33, lines 11 to 15, and page 35, lines 1 to 5) and on the other hand, A-3, A-4, and A-6 are not considered to have a hump (the written demand for trial, page 32, lines 6 to 10, page 33, lines 1 to 5, and page 34, lines 7 to 11).

Further, aside from A-3, A-4, and A-6, it is assumed that Well-known art 1 can be recognized according to the descriptions of A-2, A-5 and A-7, and even if it is understood that Well-known art 1 constitutes "common technical knowledge of a person skilled in the art that is represented by A-2 to A-7" in Reason for invalidation 2, it has not been proved that changing "an elastic material" configuring the core of Invention A No. 1 to non-stretchable is merely a matter of common technical knowledge for a person skilled in the art, and it is not recognized that it is obvious to a person skilled in the art.

Then, although it is understood that in Invention A-1 No. 1, the same as shown in (3) B above about Invention A-1, the elongation of the core results in the flexible sheaths being pulled apart, and the contraction of the core results in the sheaths moving toward each other, if changing "an elastic material" configuring the core of Invention A-1 No. 1 to "non-stretchable," the elongation and contraction of the core which results in the abovementioned result is prevented, and the original function of Invention A-1 No. 1 may be impaired. Thus, even considering Well-known art 1, in Invention A-1 No. 1, it must be said that it is not motivated that "an elastic material" configuring the core is design-changed to non-stretchable.

Therefore, even assuming Well-known art 1, in Invention A-1 No. 1, since it cannot be said that changing "an elastic material" configuring the core to non-stretchable

is a matter of common technical knowledge of a person skilled in the art, Different Feature 1' is a substantial different feature. Further, in Invention A-1 No. 1, it cannot be said that changing "an elastic material" configuring the core to non-stretchable is merely a design change based on Well-known art 1.

Therefore, the Demandant's allegation about Different Feature 1' cannot be accepted.

#### B Regarding Different Feature 2'

The Demandant, in the written demand for trial, page 37, line 6 to page 40, line 8, and page 45, lines 1 to 6, according to the descriptions of A-2. A-5, and A-7, assuming it is a well-known art that "in a member having a hump whose diameter changes depending on the magnitude of the axial tension applied to itself, a non-stretchable member is disposed at a center tube part configured by a tubular structure of the member, and the non-stretchable member configures cores of the hump, and is rounded at a hump corresponding part so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter" (hereinafter, referred to as "Well-known art 2", further, in the written demand for trial, 2 is a circled number), alleges that according to Well-known art 2, since it is merely a matter of common technical knowledge that the core of Invention A-1 No. 1 is rounded at the hump corresponding part, Different Feature 2' is not a substantial different feature, or that since Different Feature 2' is naturally achieved only by adopting the configuration of Well-known art 1 for the configuration according to Different Feature 1', Different Feature 2' is not a substantial different feature also in this meaning, or that Different Feature 2 is merely a design change based on Wellknown art 2. Therefore, it will be examined as follows.

First, Well-known art 2 can be recognized according to the descriptions of A-2, A-5, and A-7, and even if it is understood that Well-known art 2 constitutes "common technical knowledge of a person skilled in the art that is represented by A-2 to A-7" in Reason for invalidation 2, it has not been proved that making the core of Invention A-1 No. 1 rounded at the hump corresponding part is merely common technical knowledge for a person skilled in the art, and it is not recognized that it is obvious to a person skilled in the art.

Further, although it is understood that in Invention A-1 No. 1, the same as shown in (3) C above about Invention A-1, the contraction of the core results in the sheaths moving toward each other, if making the core of Invention A-1 No. 1 "rounded at the hump corresponding part," the contraction of the core which results in the abovementioned result is prevented, and the original function of Invention A-1 No. 1 may be impaired. Thus, even considering Well-known art 2, in Invention A-1 No. 1, it must be said that it is not motivated that the core is design-changed to the one "rounded at the hump corresponding part".

Therefore, even assuming Well-known art 2, in Invention A-1 No. 1, since it cannot be said that making the core "rounded at the hump corresponding part" is a matter of common technical knowledge of a person skilled in the art, Different Feature 2' is a substantial different feature. Further, in Invention A-1 No. 1, it cannot be said that making the core "rounded at the hump corresponding part" is merely a design change based on Well-known art 2.

Furthermore, even assuming Well-known art 1, as shown in A above, since in Invention A-1 No. 1, it is not motivated that "an elastic material" configuring the core is design-changed to non-stretchable, the Demandant's allegation that Different Feature 2' is naturally achieved only by adopting the configuration of Well-known art 1 for the configuration according to Different Feature 1' lacks the precondition, and thus is unfounded.

Hence, the Demandant's allegation about Different Feature 2' cannot be accepted.

#### C Summary

As described above, since Different Feature 1' and Different Feature 2' are both substantial different features, Invention 1 is not identical with Invention A-1 No. 1. Further, Invention 1 could not have been easily invented by a person skilled in the art, on the basis of Invention A-1 No.1 and the common technical knowledge for a person skilled in the art represented by A-2 to A-7.

#### (5) Summary of Invention 1

As described above, Invention 1 is not the invention described in A-1, and does not fall under Article 29(1)(iii) of the Patent Act. Further, Invention 1 could not have been easily invented by a person skilled in the art, on the basis of Invention A-1 and the descriptions of A-2 to A-7, and could not have been easily invented by a person skilled in the art, on the basis of Invention A-1 No. 1 and the common technical knowledge for a person skilled in the art represented by A-2 to A-7. Therefore, Invention 1 is not one for which should not be granted a patent in accordance with the provisions of Article 29(2) of the Patent Act.

## 3 Regarding Inventions 2 to 5

Since Inventions 2 to 5 directly or indirectly refer to Invention 1, and have all matters specifying Invention 1, as with Invention 1, they are not the invention described in Invention A-1, could not have been easily invented by a person skilled in the art on the basis of Invention A-1 and the descriptions of A-2 to A-7, and could not have been easily invented by a person skilled in the art, on the basis of Invention A-1 No.1 and the common technical knowledge for a person skilled in the art represented by A-2 to A-7.

Therefore, also Inventions 2 to 5 do not fall under Article 29(1)(iii) of the Patent Act, and are not ones for which should not be granted a patent in accordance with the provisions of Article 29(2) of the Patent Act.

4 Closing on Reason for invalidation 1 and Reason for invalidation 2

As described above, Inventions 1 to 5 cannot be invalidated for both Reason for invalidation 1 and Reason for invalidation 2.

No. 6 Judgment by the body on Reason for invalidation 3 (Article 36(4)(i) of the Patent Act)

1 Regarding how to think about enablement requirement

Article 36(4)(i) of the Patent Act specifies that the detailed description of the patent in the specification should " it is clear and sufficient to enable a person ordinarily skilled in the art of the invention to work the invention ".

The patent system is a system which imparts a monopolistic right of carrying out the invention, to the inventors for a fixed time period, in return for the disclosure of the invention, and accordingly such a content as to disclose the technical content of the invention to general people must be described in the description. The purpose of the provisions described as above in Article 36(4)(i) of the Patent Act is understood to be because when it is not clear and sufficient to enable a person ordinarily skilled in the art of the invention to work the invention, the invention results in not having been disclosed, and neglects the precondition for imparting to the inventor the monopolistic right stipulated by Patent Act.

Then, an implementation of an invention in a product invention includes an action of production, use, etc. of the product (Article 2(3)(i) of the Patent Act). Therefore, "implement the invention" in Article 36(4)(i) means being able to make and use that product, and the product invention requires a specific description in the specification showing that the product can be manufactured and used; however, even in the absence of such description, it can be said to conform to the enablement requirement if a person skilled in the art could make and use the product on the basis of the description of the

specification and drawings as well as the common technical knowledge as of the filing.

From the above point of view, it will be examined whether or not the detailed description of the invention of the specification conforms to the enablement requirement. Since the Demandant alleges that there are specifically Reason for invalidation 3-1 and Reason for invalidation 3-2 as Reason for invalidation 3, each of Reason for invalidation 3-1 and Reason for invalidation 3-2 will be examined.

## 2 Description of the specification of the Patent

The description of the specification of the Patent describes the following.

# (1) [0016]

"Here, FIG. 5 is a diagram showing an example of a flow for fixing the string of the present embodiment. The process flow of the figure consists of the following steps. First, in step S0501, axial tension is applied to the string to shrink it so that the diameter of the hump becomes smaller. Next, in step S0502, the string is passed through the string hole while the tension is applied. Next, in step S0503, it is determined whether or not the length of the string passed through the string hole is suitable for maintaining the fixed relationship. If the length is not suitable, the operation of step S0502 is repeated and the operation of passing the string through the string hole is continued. If it is determined that the length is suitable, then the flow shifts to step S0504. In step S0504, the axial tension applied to the string is weakened and expanded so that the diameter of the hump increases. By performing such a work, it becomes possible to maintain the fixed relationship by hooking the hump in the string hole without performing the work of tying the string at the end."

(2) [0018]

"'Consisting of a stretchable material' means that the string is made of a material having the property of expanding and contracting. As the elastic material, it is considered to use natural rubber or synthetic rubber, and these materials may be used alone to form the entire string into a rubber tube shape as shown in FIG. 12, and the material may be used in combination with a non-stretchable material such as polyester, nylon, acrylic, or polyurethane. In any case, by adopting this configuration in which the entire string body is made of stretchable material, the entire string made of stretchable material expands and contracts by applying axial tension, so that strain does not easily occur in each part of the string, and it is possible to provide a string that is resistant to tearing even if strong tension is repeatedly applied to the string body...."

"FIG. 6 is a perspective view showing the entire string of this embodiment. As shown in this figure, the string of this embodiment is basically the same as the string described in Embodiment 1, but the stretchable material is formed by weaving a rubber-like material and a non-stretchable ordinary material...."

# (4) [0022]

"The rubber-like material' indicates a thread-like material having excellent elasticity such as rubber, and has a function of producing a good stretching effect by applying a force in the axial direction. Here, 'rubber-like' is an expression indicating the property of the material, and is not intended to exclude the rubber itself as a target material. Therefore, regardless of the type of natural rubber or synthetic rubber, the rubber itself is naturally included in the 'rubber-like material' here. By adopting a structure in which a rubber-like material is braided, it becomes possible to sufficiently stretch with a small force when axial tension is applied to the string." (5) [0023]

"The non-stretchable ordinary material" indicates a fiber material having poor stretchability as compared with the rubber-like material. That is, "non-stretchable" is a technical term that means "poor stretchability," and does not mean "having no stretchability". Examples of non-stretchable ordinary materials include the abovementioned fiber materials such as polyester, nylon, acryl, and polyurethane. By adopting a structure in which these ordinary materials, which are fiber materials having a high linear density, are braided, it is possible to form a string that is strong and does not easily tear. Further, by using a normal material, it is possible to form humps having various shapes that are difficult to form with only a rubber-like material." (6) [0024]

"In addition, the rubber-like material and the normal material constitute the stretchable material of the present embodiment by braiding each other...." (7) [0026]

"Here, in the string of the present embodiment in which the string body made of a stretchable material is formed by braiding, a method of forming a hump provided on the string body will be described. As already explained, the hump needs to be formed so that the diameter size changes when axial tension is applied to the string, and it is necessary to ensure such a function of the string even under the braided structure. To be more specific, a method of partially bracing the braid of the string may be considered, such as loosely braiding as compared with other parts of the string, so as to correspond to the change in the diameter due to axial tension in the hump part. By taking such a braiding method, it is possible to bend the hump portion so that it can be expanded and

contracted. Therefore, instead of splicing the braided material separately at the center portion and the end portion of the hump center part in the string body, it can be constituted by a series of rubber-like materials and normal materials..."

# (8) [0030]

""The central string' has a function of following the change in the distance between both ends of the hump according to the change in the diameter of the hump, and is rounded at the hump corresponding part to constitute a core of the hump. 'The change in the distance between both ends of the hump according to the change in the diameter of the hump' refers to the characteristics of the string of the present invention in which the large and small axial tensions are applied to the string body to change the diameter of the hump and the distance between both ends of the hump according to the change in the distance. 'The function of following' such a change means, for example, that if the distance between both ends of the hump is shortened, the rounded part of the central string is rounded so as to be further contracted, and if the distance between both ends is increased, the rounded part of the central string is expanded.

Here, the rounded part of the central string is provided at a part corresponding to the hump of the string body. According to this structure, the stretchable material forming the string body forms a hump along the hump corresponding part of the central string while tension is not applied, so that the hump corresponding part functions as a core for forming humps. Then, by having the central string that functions as a core on the inside, the hump can be kept sufficiently rigid to withstand repeated use. In order for the central string to function as the core of the hump, it is necessary that the position of the hump corresponding part is not displaced. In order to secure the function as a core of such a hump, the central string is required to connect the corresponding parts of the respective humps, and to take a string-like structure fixed to the string at the ends of the string, for example."

# (9) [0031]

"Since the central string does not need to function to expand and contract the string, it is not necessary to use a stretchable material, and it may be made of a non-stretchable material. That is, even when the tension is applied to the string body in the axial direction to expand and contract, the central string does not expand and contract as in the rubber-like material. The central string has a length slightly longer than that of the string body, and 'the rounded part" has, for example, a spiral shape. With this configuration, it is possible to avoid a situation in which it is difficult to restore the hump due to the rounded parts being entangled, even when the string is repeatedly stretched and used..." (10) [0041]

"The state in which axial tension is applied' refers to a state in which the string main body is pulled. In this state, as shown in FIG. 2, the diameter of the central portion of the hump is smaller than that in the state where the axial tension is zero, and the hump functions so as to pass through the through hole without being caught. Therefore, in order for the hump to perform the above-mentioned function, it is necessary that the hump has a diameter small enough to pass through the through hole even in a state where axial tension is applied. 'A diameter small enough to pass through the through hole even in a state where axial tension is applied. 'A diameter small enough to pass through the through hole even in a state where axial tension is applied' is ultimately most preferably the same as the diameter of both ends of the hump. However, the string of the present invention uses a stretchable material for the string body, and has a tubular shape. In other words, since there is a play part inside the tube, even if the diameter of the central part of the hump is slightly larger than the diameter of both end parts, the hump part shrinks toward the play part inside the tube when passing through the through hole. As a result, it becomes able to pass through a through hole having the same diameter as the diameter of both end portions."

3 Regarding Reason for invalidation 3-1

A Outline of the Demandant's allegation

"A non-stretchable material" of "the central string" of Invention 1, according to the descriptions of Paragraphs [0023] and [0031] of the specification, includes polyurethane fibers, and although the polyurethane fibers are elastic rubber (A-1 and A-12), since the polyurethane fibers that are elastic rubber fall under "a stretchable material," no matter how the specification and the common technical knowledge are taken into consideration, it is impossible to configure the central string made of "a non-stretchable material" by using the polyurethane fibers that are elastic rubber (the written demand for trial, page 45, line 8 to page 47, line 17).

#### **B** Examination

(A) Reason for invalidation 3-1 alleged by the demandant is based on the premise that "a non-stretchable material" of "the central string" of Invention 1 includes polyurethane fibers, and since the polyurethane fibers fall under "a stretchable material," not "a non-stretchable material," it is understood that when the polyurethane fibers are used for "the central string," it is impossible to make Invention 1 in which "the central string" is "a non-stretchable material". As the basis for the fact that "a non-stretchable material" of "the central string" of "the central string" of Invention 1 includes the polyurethane fibers, the description that "a fiber material such as polyurethane" of Paragraph [0023] is shown.

However, according to the descriptions of Paragraphs [0018], [0020], [0023], and [0024] (see 2(2), 2(3), 2(5) and 2(6) above), it is obvious that "a fiber material such as polyurethane" of Paragraph [0023] is not illustrated as "a non-stretchable material" of "the central string," but is illustrated as "a non-stretchable ordinary material" in "a string body" made of a non-stretchable material configured by braiding a rubber-like material and a non-stretchable ordinary material. Then, in addition to the matter that the wording is different between "a non-stretchable material" and "a non-stretchable ordinary material," since there is no reason for understanding that "a non-stretchable ordinary material," is the fiber material braided with the rubber-like material, it cannot be immediately said that "a non-stretchable material" of "the central string" is polyurethane" illustrated as "a non-stretchable ordinary material," between "a non-stretchable material braided with the rubber-like material, it cannot be immediately said that "a non-stretchable material" of "the central string" is polyurethane" illustrated as "a non-stretchable ordinary material" of "the central string" is polyurethane."

Therefore, Reason for invalidation 3-1 alleged by the Demandant is incorrect on the assumption that "a non-stretchable material" of "the center string" of Invention 1 contains polyurethane fibers.

(B) As described in (A) above, although it cannot be immediately said that "a nonstretchable material" of "the central string" contains polyurethane fibers, when "a nonstretchable material" of "the central string" is the polyurethane fibers, it will be examined whether or not it is possible to make Invention 1 by way of caution.

According to the description of Paragraph [0031] (see 2(9) above), it should be interpreted that "a non-stretchable material" of "the central string" of Invention 1 refers to a material that does not expand/contract as the rubber-like material, when axial tension is added to the string body to expand/contract. Such an interpretation is consistent with the description that "non-stretchable' is a technical term that means 'poor stretchability,' and does not mean 'having no stretchability'" of Paragraph [0023].

Then, since Paragraph [0031] describes that "since the central string does not need to function to expand and contract the string, it is not necessary to use a stretchable material, and it may be made of a non-stretchable material," even if the polyurethane fibers are elastic rubber and may fall under "a stretchable material" of Paragraph [0018] (see 2(2) above), for example, if "the string body" of Invention 1 is made of "a rubber-like material" and the polyurethane fibers do not expand/contract as "a rubber-like material" of "the string body," a person skilled in the art can understand that the polyurethane fibers can configure "the central string".

Accordingly, even if the polyurethane fibers are used for "the central string," it can be said that Invention 1 in which "the central string" is "a non-stretchable material" can be made. Inventions 2 to 5 that directly or indirectly refer to Invention 1 are also the same.

Therefore, Reason for invalidation 3-1 alleged by the demandant is groundless.

## 4 Regarding Reason for invalidation 3-2

A Outline of the demandant's allegation

It is understood that the constituent component that the central string of Invention 1 "configures core of the humps" satisfies the following conditions (A) to (C).

(A) The hump corresponding part of the central string functions as a core for forming humps.

(B) The hump can be kept sufficiently rigid to withstand repeated use.

(C) The position of the hump corresponding part is not displaced.

However, the specification of the Patent does not disclose any concrete means other than the structure in which the central string is rounded at the hump corresponding part. In order to satisfy the conditions of (A) to (C) and configure a rounded central string as a core of a hump, although ingenuity is indispensable such as filling the inside of parts corresponding to the humps of the string body with the central string rounded, and there is no hollow region between parts where the central string is rounded and the parts corresponding to the humps of the string body, the specification of the Patent does not describe such contents at all.

In order to make a configuration in which the inside of parts corresponding to the humps of the string body with the central string rounded, and the central string functions as a core satisfying the conditions of (A) to (C), it is necessary to repeat the test by various manufacturing methods using the central strings of various materials, forcing a person skilled in the art to perform excessive trial and error (the written demand for trial, page 47, line 18 to page 50, line 8, the Demandant's statement brief, page 24, line 21 to page 27, line 15, and the Demandant's statement brief (2), page 1, line 8 to page 3, line 12).

Further, although in the first oral proceeding, the Demandant stated that "Reason for invalidation 3-2 is alleged when 'configures cores of the humps' is interpreted as one specifying something more than 'rounded at hump corresponding parts so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter'" ("Demandant" column "5" in the first oral proceeding record), the body judges that regarding "configures cores of the humps" of Invention 1 should be interpreted as the one specifying something more than "rounded at hump corresponding parts so as to follow the changes in a distance between hump both ends according to the changes of a hump diameter" as described in No. 5, 2(1) D, so that Reason for invalidation 3-2 alleged by the demandant will be examined. The conditions of (A) to (C) above that the Demandant alleges are the same as (A) to (C) that the body shows in No. 5, 2(1) D.

#### B Examination

(A) According to the description that "in order for the central string to function as the core of the hump, it is necessary that the position of the hump corresponding part is not displaced. In order to secure the function as a core of such a hump, the central string is required to connect the corresponding parts of the respective humps, and to take a string-like structure fixed to the string at the ends of the string, for example" of Paragraph [0030] (see 2(8) above), it can be said that it is possible to make one satisfying the conditions of A(C) above by fixing the central string connecting the respective hump corresponding parts to the string body with the ends of the string, for example.

(B) On the other hand, the specification of the Patent does not specifically describe a method for producing the one satisfying the conditions of A(A) and (B) above. In this respect, the Demandee, in the Demandee's statement brief, page 7, line 14 to page 8, line 23, alleges that a method of forming humps which satisfies the conditions of A(A) to (C) above is described in Paragraph [0026]. However, the description of Paragraph [0026] (see 2(7) above) does not relate to the embodiment having the central string, and is not a direct basis for the fact that the central string "configures cores of the humps," so that the Demandee's allegation is not reasonable. Then, it will be further examined whether or not a person skilled in the art can make one specifying the conditions of A(A) and (B) above, in addition to the condition of A(C) above, on the basis of the description of the specification of the Patent and the common technical knowledge.

(C) According to the description that "here, the rounded part of the central string is provided at a part corresponding to the hump of the string body. According to this structure, the elastic material forming the string body forms a hump along the hump corresponding part of the central string while tension is not applied, so that the hump corresponding part functions as a core for forming humps. Then, by having the central string that functions as a core on the inside, the hump can be kept sufficiently rigid to withstand repeated use" of Paragraph [0030] (see 2(8) above), it is understood that the conditions of A(A) and (B) above can be satisfied, while tension is not applied to the string, if the string body has a shape along the rounded part of the central string, for example. Then, in light of common technical knowledge, it is obvious that it is possible to make one satisfying the conditions of A(A) and (B) above, when making a string, by producing a central sting in a state having a rounded part in advance, and by molding a string body while setting an inner diameter of a tube part of the string body that has a tubular structure so as to have a shape along the rounded part according to a position and shape of the rounded part.

Further, in light of common technical knowledge, it is obvious that when making the string, by forming the string body on the basis of, for example, the description of Paragraph [0026] (see 2(7) above) and the like, even if the position and shape of the hump of the string body is previously decided, a diameter of the central string is made to be a diameter slightly smaller than an inner diameter of the tube part of the string body that is the tubular structure, and when the central string is fixed to the string body while tension is applied to the string body and then the tension is released, the central string may be rounded at parts corresponding to the humps of the string body. Since it is thought that the shape and the like after being rounded can be adjusted by properly changing the length and the like of the central string, it should be said that a person skilled in the art can make one satisfying the conditions of A(A) and (B) above, without excessive trial and error.

(D) Accordingly, it can be said that a person skilled in the art can make Invention 1 satisfying the conditions of A(A) to (C) above, on the basis of the description of the specification of the Patent and common technical knowledge, without requiring excessive trial and error. Inventions 2 to 5 that directly or indirectly refer to Invention 1 are also the same.

Therefore, Reason for invalidation 3-2 alleged by the demandant is groundless.

(E) Also, the Demandee, regarding Reason for invalidation 3-2, in the written reply of trial case, page 30, lines 11 to 24 and the Demandee statement brief, page 7, lines 7 to 13, alleges that as can be seen from the description in Paragraph [0041], Invention 1 also assumes that there is a hollow region between the string body and the central string, and there is no need to dare to make something that does not have a hollow area.

However, the description of Paragraph [0041] (see 2(10) above) is about the embodiment that is does not include the central string, and the paragraph merely describes that "in other words, since there is a play part inside the tube, even if the diameter of the central part of the hump is slightly larger than the diameter of both end parts, the hump part shrinks toward the play part inside the tube when passing through the through hole. As a result, it becomes possible to pass through a through hole having the same diameter

as the diameter of both end portions," so that it does not immediately become the basis for the above allegation.

Then, although the Demandee, in the first oral proceeding, also stated that "regarding Reason for invalidation 3-2, the allegation that "the hollow region" exists is such that the central string functions as the core of the hump" ("Demandee" column "3" in the first oral proceeding record), the string body has a shape along the rounded part of the central string, and even in the case where the conditions of A(A) and (B) above are satisfied, it is impossible that there is no gap between the string body and the rounded part of the central string. Therefore, the Demandee's allegation does not violate the judgment of (C) above indicated by the body, regarding Invention 1, since the gist of the allegation is that it is permissible that a slight gap exists between the string body and the rounded part of the central string, if the conditions of A(A) and (C) above are satisfied.

## 5 Whether or not Inventions 1 to 5 can be used

Although it is not in the issue in Reason for invalidation 3-1 and Reason for invalidation 3-2 alleged by the Demandant, if examining whether or not Inventions 1 to 5 can be used, it is understood that Inventions 1 to 5 can be used as the same as "flow for fixing the string" of the embodiment described in Paragraph [0016] (see 2(1) above).

#### 6 Closing on Reason for invalidation 3

As described above, there is no reason in both Reason for invalidation 3-1 and Reason for invalidation 3-2 alleged by the Demandant, and it can be said that a person skilled in the art can make Inventions 1 to 5, and can use Inventions 1 to 5 on the basis of the description of the specification of the Patent and the common technical knowledge, the detailed description of the invention of the specification of the Patent satisfies the enablement requirement.

Therefore, the patent according to Inventions 1 to 5 cannot be invalidated for Reason for invalidation 3.

No. 7 Judgment by the body on Reason for invalidation 4 (Article 36(6)(i) of the Patent Act)

## 1 The Demandant's allegation

The same as described in Reason for invalidation 3, Inventions 1 to 5 are not within the extent of disclosure in the description to which a person skilled in the art would recognize that a problem to be solved by the invention would be actually solved, violate the support requirement, and thus are invalidated by Article 123(1)(iv) of the Patent Act and Article 36(6)(i) of the same Act (the written demand for trial, page 50, lines 15 to 17).

Also, the allegation for adding a specific reason of Reason for invalidation reason 4 by the Demandant's statement brief, page, 27, line 21 to page, 33, line 1, falls under amendment that changes the gist of the reason for request, and there is no reasonable reason in that it is not described in the written demand as of the demand for trial, it was judged that the addition of the allegation was not permitted on the basis of Article 131-2(2) of the Patent Act, in the first oral proceeding ("the chief administrative judge" column "2" of First oral proceeding record).

#### 2 Examination

As described 1 above, the Demandant does not allege more than "the same as what was stated in Reason for invalidation 3" regarding the matter that Inventions 1 to 5 violate the support requirement, and even considering the Demandant's allegation about Reason for invalidation 3, it cannot be said that it is specifically explained that Inventions 1 to 5 are not within the extent of disclosure in the description to which a person skilled in the art would recognize that a problem to be solved by the invention would be actually solved.

Then, as long as assuming the Demandant's allegation, since the patent according to Inventions 1 to 5 cannot be invalidated for Reason for invalidation 3 as described in No. 6, it must be judged that the patent according to Inventions 1 to 5 cannot be invalidated also for Reason for invalidation 4.

#### 3 Preliminary examination

(1) It is stipulated in Article (36)(6)(i) of the Patent Act that the description of the Scope of Claims must be "the description in which the invention for which a patent is sought is described in the detailed description of the invention". The item concerned stipulates what is called the support requirement of the specification, and whether or not the statement of the Scope of Claims for patent complies with the support requirement of the specification should be determined by examining whether or not the invention described in the Scope of Claims for patent is the invention described in the detailed description of the invention, and whether or not they are within the extent of disclosure in the description to which a person skilled in the art would recognize that a problem to be solved by the invention, and whether or not they are within the detailed description of the invention, and whether or not they are within the detailed description in the Scope of Claims for patent with the description in the detailed description in the Scope of Claims for patent with the description in the detailed description in the Scope of Claims for patent with the description in the detailed description of the invention, and whether or not they are within the extent to which a person skilled in the art would recognize that a problem to be solved by means

of referring to the common general knowledge at the time of filing even in the absence of the descriptions or the suggestions.

(2) As is obvious from No. 6, 1 and (1) above, the enablement requirement and the support requirement are different in a viewpoint to be examined, so that even if the enablement requirement is satisfied, it cannot be immediately said that the support requirement is satisfied. Further, the Demandant alleges that "Inventions 1 to 5 are not within the extent of disclosure in the description to which a person skilled in the art would recognize that a problem to be solved by the invention would be actually solved" about Reason for invalidation 4, aside from the specific explanation. Then, from a viewpoint of (1) above, it will be preliminarily examined whether or not the description of the Scope of Claims of the case satisfies the support requirement.

(3) The description of the Scope of Claims of the case is as shown in No. 2 above.

(4) The specification of the Patent describes the following.

A [0002]

"Conventionally, regarding for strings as shoe laces need to be threaded for fixing, a linear material having elasticity such as rubber is used for a center core, a string is formed by covering the outer circumference of the core with fibers, and there is known a technique relating to a string in which a loosened portion does not occur even if it is not tied, by providing a knitted hump which is hooked in the through hole of a lace shoe or the like in the fiber portion of the outer circumference."

B [0003]

"The operating principle of the hump, which is braided so that it can be passed through the through hole of the lace shoe and then caught in the hole, lies in the structure that the diameter of the hump changes freely according to the tension applied to the string. That is, the string has a structure in which there are arranged a rubber as a core and a plurality of inelastic (flexible) humps whose both ends are fixed to the rubber to be the core and whose center is not fixed. By giving tension to the rubber that serves as the core, the rubber expands, and the distance between both ends of the hump increases, so that the central portion of the hump sandwiched between the humps is flattened and its diameter is reduced.

Further, when the tension disappears, the rubber returns to the original length again, and therefore the distance between both ends of the hump returns to the original value, so that the hump returns to the original hump shape and its diameter increases.

In this way, the hump can be flattened and restored; that is, the size of the diameter of the hump can be manipulated by the tension applied to the string, so as described above, when threading the string, the hump is flattened to have a small diameter, thereby making it easier to pass through the hole. By reducing the tension on the string when threading is completed, the hump can be restored to have a larger diameter and a shoe lace that does not loosen even if it is not tied can be realized."

C [0006]

"However, in the above-mentioned conventional technique, both ends of the nonelastic hump are fixed to the rubber serving as the core, so that the rubber portion in a fixed relationship with both ends of the hump does not extend even if a high tension is applied to the string. This is because the hump is formed by braiding inelastic fibers, and this rubber portion is, on the contrary, fixed to the inelastic fibers.

Further, the rubber portion corresponding to the central portion of the hump repeats expansion and contraction every time a high tension is repeatedly applied to the string.

In other words, even in the core having the same elasticity, a portion that expands and contracts strongly and a portion that does not expand and contract at the same time coexist, high strain is accumulated in the boundary region, and when the strain reaches the limit, it eventually breaks. This technique has a problem in that it requires an operation that causes strain to accumulate in a relatively weak material such as rubber." D [0007]

"In order to solve the above problems, the present invention proposes a string with a tubular string body made of a stretchable material having humps which are repeatedly arranged at intervals and whose diameters change depending on the magnitude of axial tension applied to itself."

E [0008]

"According to the present invention mainly having the above-mentioned configuration, it is possible to provide an economically and efficiently excellent string that is hard to break and does not easily loosen or slacken even if it is not tied."

F [0011]

"FIG. 1 is a view showing a part of the cord of the present invention. As shown in this figure, it is characterized in that the string of this embodiment is equipped with a tubular string body made of a stretchable material that has humps repeatedly arranged at intervals and whose diameters change depending on the magnitude of axial tension applied to itself. With this structure, it is possible to realize a string that is resistant to tearing even when a strong tension is repeatedly applied to the string body."

## G [0013]

"As shown in FIG. 1, 'the string' 0100 of this embodiment is composed of a tubular string body having humps that are repeatedly arranged at intervals. Specifically, the hump is arranged by repeating 'a center portion' 0101 and 'an end portion' 0102. On the other hand, FIG. 2 is a diagram showing the string of the present embodiment in a state where axial tension is applied. As shown in this figure, by applying axial tension, the diameter of the hump portion changes so as to contract. Then, when the tension applied in the axial direction is removed, the diameter of the hump portion changes to expand again as the string body contracts."

## H [0017]

"The hump' of the string of the present invention refers to a part that has a larger diameter than the diameter of the part without the hump under the condition that no axial tension is applied to the string. That is, the hump is a part of the string body, and naturally, like the string body, is made of a stretchable material which will be described in detail later."

# I [0018]

"The phrase 'consisting of a stretchable material' means that the string is made of a material having the property of expanding and contracting. As the stretchable material, use of natural rubber or synthetic rubber is considered, and these materials may be used alone to form the entire string into a rubber tube shape as shown in FIG. 12, and the material may be used in combination with a non-stretchable material such as polyester, nylon, acrylic, or polyurethane. In any case, by adopting this configuration in which the entire string body is made of stretchable material, the entire string made of stretchable material expands and contracts by applying axial tension, so that strain does not easily occur in each part of the string, and it is possible to provide a string that is resistant to tearing even if strong tension is repeatedly applied to the string body."

#### J [0019]

"With the string of the present embodiment having the above configuration, it becomes possible to repeatedly use the string body while maintaining the hump shape even if a strong tension is applied to the string body, and it is possible to solve the problem that the above-mentioned conventional technique has."

(5) From the descriptions of (4) A to F and J, it is understood that the Patent focuses on the problem that the conventional string that does not loosen even if it is not tied has a structure where a rubber as a core and a plurality of inelastic (flexible) humps whose both ends are fixed to the rubber to be the core and whose center is not fixed, so that when strong tension is repeatedly applied to the string body, high strain is accumulated at a boundary area between the part of the elastic core that is subject to severe expansion and contraction (the rubber part corresponding to the center part of the hump) and the part that does not expand or contract at all (the rubber part in the fixed relationship with both ends of the hump), and when the strain reaches the limit, it eventually leads to tear, and the purpose of the invention is to provide a string hard to tear even if strong tension is repeatedly applied to the string body.

(6) From the descriptions of (4) C to J, it is understood that by including the tubular string body made of a stretchable material having humps that are repeatedly arranged at intervals and whose diameters change depending on the magnitude of axial tension to be applied to themselves, unlike the conventional string, the entire string body made of the stretchable material expands and contracts, so that strain is hard to occur at each part of the string, and the string hard to tear even if strong tension is repeatedly applied to the string body can be realized.

(7) Inventions 1 to 5 include the tubular string body made of a stretchable material having humps that are repeatedly arranged at intervals and whose diameters change depending on the magnitude of axial tension to be applied to themselves, and "the central string" included in Inventions 1 to 5 "configures cores of the humps, and is rounded at hump corresponding parts so as to follow the changes in a distance between both hump ends according to the changes of a hump diameter". It can be understood that it does not particularly hinder the expansion and contraction of the entire string body made of a stretchable material, so that it can be said that Inventions 1 to 5 are within a range such that it can acknowledged that the problems of the invention can be solved.

(8) Therefore, the description of the Scope of Claims satisfies the support requirement.

#### 4 Closing on Reason for invalidation 4

As described above, Reason for invalidation 4 alleged by the Demandant is groundless, and the description of the Scope of Claims satisfies the support requirement.

Hence, the patent according to Inventions 1 to 5 cannot be invalidated for Reason for invalidation 4.

#### No. 8 Closing

As described above, the patent according to Inventions 1 to 5 cannot be invalidated

for Reasons for invalidation 1 to 4 alleged by the Demandant and proof submitted.

The costs in connection with the trial shall be borne by the Demandant under the provisions of Article 61 of the Code of Civil Procedure which is applied mutatis mutandis in the provisions of Article 169(2) of the Patent Act.

Therefore, the trial decision shall be made as described in the conclusion.

## No. 9 Additional remarks

The demand for invalidation trial of the case is a demand for trial for the patent relating to sharing between the Demandant and the Demandee, and was made only by the Demandant. In the first place, the relationship with the provisions of Article 132(3) of the Patent Act may be a problem.

However, we will proceed with the trial on the reason for invalidation alleged by the Demandant, and add that the trial decision was made as the above conclusion, based on circumstances behind the demand for invalidation trial; that is,

(1) as it is obvious from Interlocutory judgment of A-16 (Intellectual Property High Court 2017 (Ne) 10049, the case of appeal on request for claiming damages) and the Defendant's first brief of A-19 (Tokyo District Court The case of 2019 (Wa) 4944, the Patent right infringement injunction case), the Demandant and the Demandee (three parties) have filed infringement actions against each other, the two parties have conflicting interests in the validity of the patent,

(2) as it is obvious from Interlocutory judgment, a patent right joint ownership right itself of the Demandant itself is conflicted,

(3) The Demandee does not allege at all that the demand for invalidation trial of the case violates the provision of Article 132(3) of the Patent Act,

(4) Regarding Article 132(3) of the Patent Act, there is an example Supreme Court Decision (Supreme Court Decision, the case of 2009 (Gyo-Hi) 154) that "it is reasonable to understand that one of joint owners of the patent right can file a litigation to revoke a cancellation decision alone, as a preservation act to prevent the extinction of a patent right, when a decision to cancel a patent pertaining to sharing is made," and ""when a joint owner of a patent right requests a trial for the right pertaining to sharing" of Article 132(3) of the Patent Act assumes an appeal against complaints of refusal to register for extension of patent term (Article 67-3(1) and Article 121 of the same Act) or an appeal for correction (Article 126 of the same Act) and the like, in general, in the case of patent sharing, it is not always understood that all joint owners must act together," the decision example is an admission that one of the joint owners independently carries out the act of preserving the patent right when there is a difference in willingness to continue the patent right among

the joint owners of the patent right. Although it is contrary to the case of extinction, as described in (1) and (2) above, it is common in that there is a conflict between joint owners in the interests of the existence of patent rights.

December 6, 2019

Chief administrative judge: WATANABE, Toyohide Administrative judge: SHIRAKAWA, Takahiro Administrative judge: ISHII, Takaaki