

SCENE 1: 2nd Oral Argument

SCENE1 ~ 2nd Date for Oral Argument~

Procedures to be conducted on this date

Confirmation of the clarified issues in dispute

Explanatory Session



Final presentation for summarizing and orally explaining allegations of both parties.

SCENE 1: 2nd Oral Argument

SCENE1 ~ 2nd Date for Oral Argument ~

Confirmation of the clarified issues in dispute

- Court and both parties:
 - No dispute regarding the structure of the Defendant's Product.
 - Issues in dispute are:

1. Fulfillment/Non-fulfillment of Element C of the Invention
⇒ Whether an FRP thread member which only passes through a single through-hole constitutes the "FRP thread member" of Element C
 2. Outcome of infringement under the Doctrine of Equivalents
⇒ Whether infringement under the Doctrine of Equivalents is established regarding the FRP strips in the Defendant's product, each of which only passes through a single through-hole.
- Defendant: No allegation of the defense of patent invalidity.

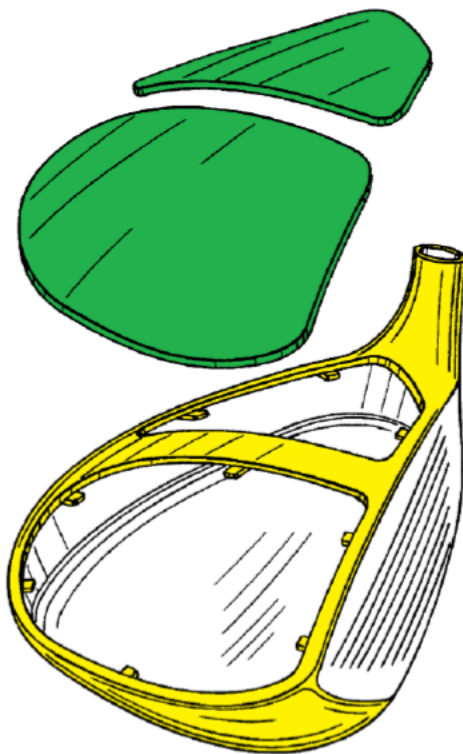
SCENE 1: 2nd Oral Argument -Explanatory Session-

1. Technical significance of the Invention (Plaintiff's argument)

Conventional art ([0002][FIG. 3])

Bonded with adhesive material

[FIG. 3] (Conventional Art)

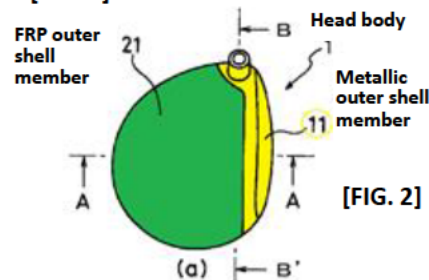


Problem to be solved by the Invention
([0003][0004])

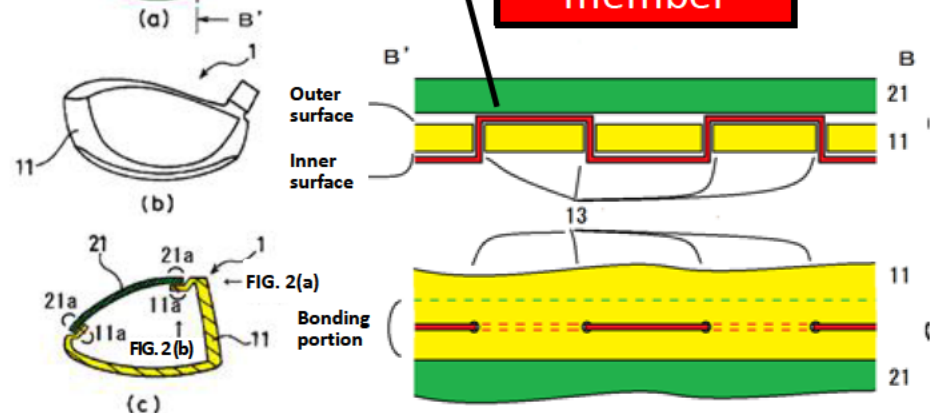
With metallic materials, it is difficult to ensure a sufficient bonding strength, or durability as a golf club head.

Embodiment of the Invention

[FIG. 1]



[FIG. 2]



2. Literal infringement of the Patent

(Plaintiff's argument)

Elements of the Invention (B-D)

B. a plurality of through-holes are provided in the bonding portion of the metallic outer shell member

C. by interposing an FRP thread member along with adhesive material between the metallic outer shell member and the FRP outer shell member, the FRP thread member maintaining a shape of passing through the plurality of the through-holes and running alternately on inner and outer surfaces of the metallic outer shell member

D. the bonding portion of the metallic outer shell member is bonded to the bonding portion of the FRP outer shell member

Defendant's Product

FIG. 1

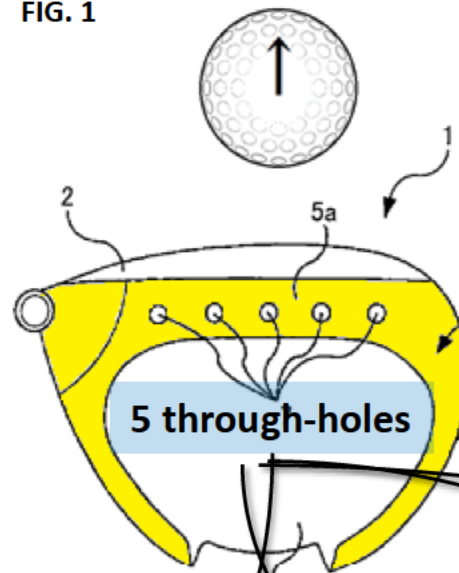


FIG. 2

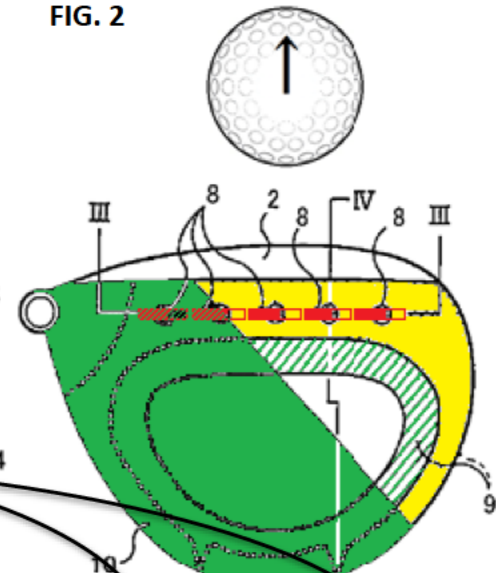
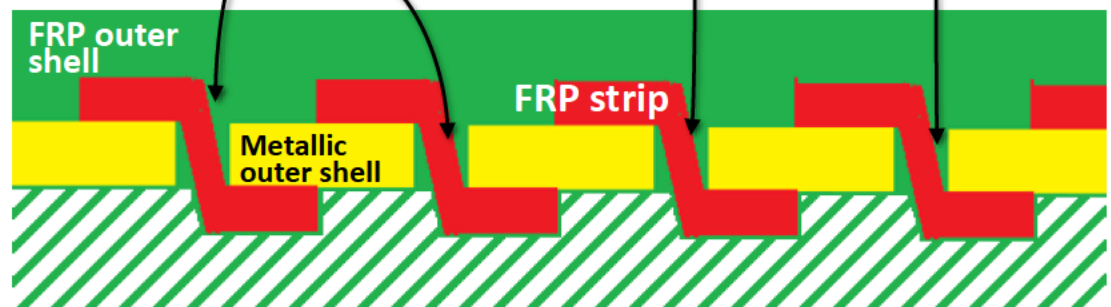


FIG. 3 (III-III Sectional View)



A group comprising 5 FRP strips

SCENE 1: 2nd Oral Argument -Explanatory Session-

3. Infringement under the Doctrine of Equivalents

(First requirement: No essential part)

(Plaintiff's argument)

An essential part of a patented invention



A part which is described in claims and constitutes a unique technical idea that is not seen in prior art.

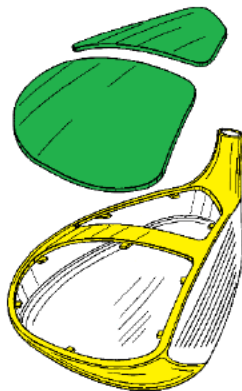
Conventional art

([0002][FIG. 3])

No ingenuity!

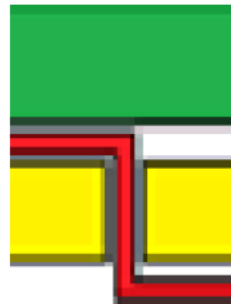
Bonded with adhesive material

[FIG. 3] (Conventional Art)



The essential part of the Invention lies in the feature to enhance the bonding strength between the metallic outer shell member and the FRP outer shell member by interposing an FRP threadlike member between them, having the threadlike member pass through the through-holes provided in the metallic outer shell member, and then curing the threadlike member for hooking; and NOT in the feature where a single thread member passes through multiple through-holes.

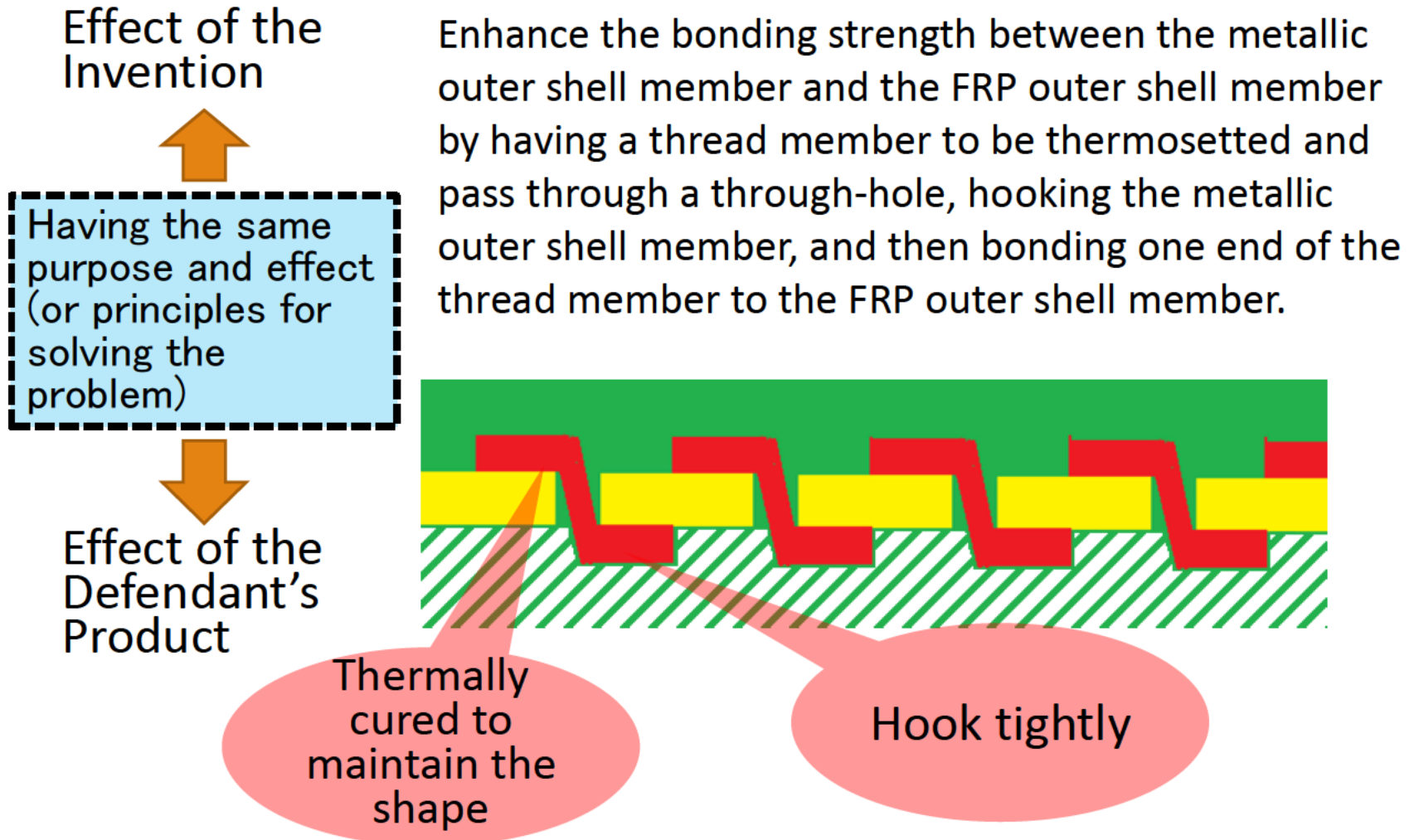
Embodiment



Defendant's Product



3. Infringement under the Doctrine of Equivalents (Second requirement: Possibility to replace) (Plaintiff's argument)

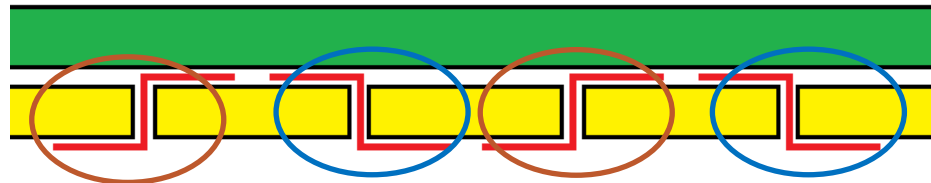


SCENE 1: 2nd Oral Argument -Explanatory Session-

3. Infringement under the Doctrine of Equivalents
(Second requirement: Possibility to replace)
(Plaintiff's argument)

Fig. 1

The Invention



Reverse

Same

Reverse

Same

Fig. 2

Defendant's
Product



SCENE 1: 2nd Oral Argument -Explanatory Session-

3. Infringement under the Doctrine of Equivalents
(Third requirement: Easiness to replace)
(Plaintiff's argument)

Structure of the Invention



Each member passing through multiple through-holes

Easily conceivable at the time of manufacture of the Defendant's Product

Structure of the Defendant's Product



Each member passing through a single through-hole only once

3. Infringement under the Doctrine of Equivalents (Fifth requirement: No intentional exclusion)

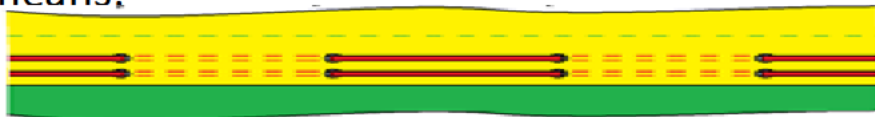
(Plaintiff's argument)

Defendant's 1st ground: "Running alternately on inner and outer surfaces of the metallic outer shell member" was added in the amendment during prosecution.

Defendant's 2nd Ground: Even though the Specification states "a plurality of thread members 22 may be arranged" at [0015], it is excluded from claims.

Plaintiff's counterargument: The Plaintiff made the amendment to clarify unclear descriptions of claims and overcome the reason for refusal (violation of clarity requirement) raised by the examiner. With such amendment, the Plaintiff is not objectively and externally regarded as having excluded any originally claimed embodiment from the technical scope of the Invention.

Plaintiff's counterargument: The statement "a plurality of thread members 22 may be arranged" means:



In the Specification, what is excluded from the scope of the invention is only "without through-holes and thread member." (Table 1)

	Bonding method	Bonding strength
Comparative Example 1	Without through-holes and thread member, and with adhesive material	100
Working Example 1	With through-holes, thread member, and adhesive material	121

The Invention

Problem to be Solved by the Invention (【0004】)

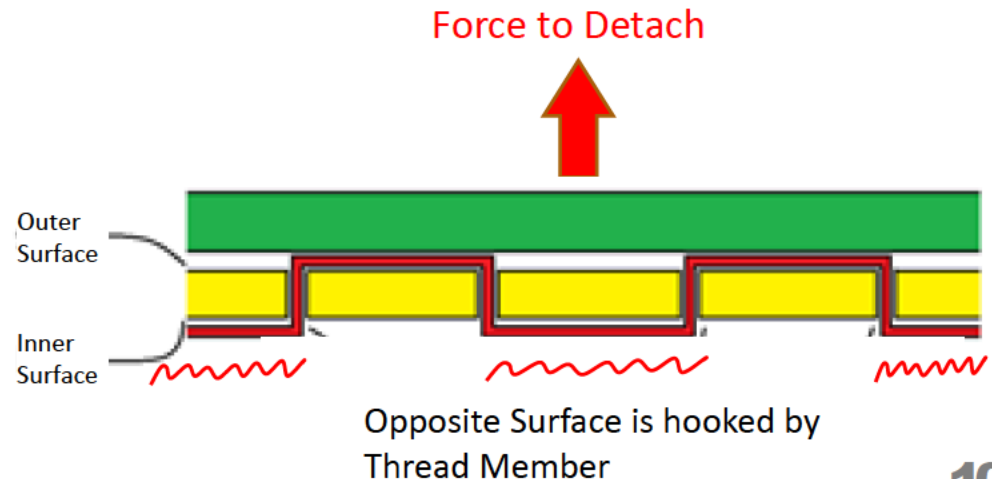
The present invention has the objective of “providing a hollow golf head capable of enhancing the bonding strength of a metallic outer shell member and an FRP outer shell member, regardless of the kind of the metallic material to be used in the metallic outer shell member.”

Means for Solving the Problem (【0005】)

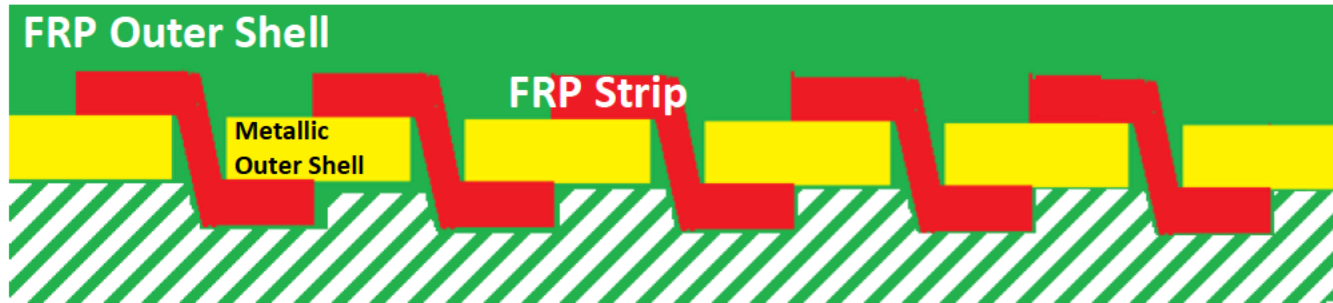
“a plurality of through-holes are provided in the bonding portion of the metallic outer shell member; the bonding portion of the metallic outer shell member is bounded to bonding portion of the FRP outer shell member by interposing an FRP thread member along with adhesive material between the metallic outer shell member and the FRP outer shell member, the FRP thread member maintaining a shape of passing through the plurality of the through-holes and running alternately on inner and outer surfaces of the metallic outer shell member”

Effect of the Invention (【0007】)

“when a force to detach the FRP outer shell member is applied, the thread member works to tie the FRP outer shell member to the metallic outer shell member because the thread member maintains the shape of hooking the metallic outer shell member on the surface opposite to the bonding surface.”



Structure of the Defendant's Product



“five short and small FRP strips each passes through one of five through-holes only once from the upper surface side to the lower surface side of the flange portion of the metallic outer shell member;
the five short and small FRP strips are interposed, along with adhesive material, between the upper surface side of the flange portion of the metallic outer shell member and the bonding portion of the FRP upper outer shell member, and between the lower surface side of the flange portion of the metallic outer shell member and the bonding portion of the FRP lower outer shell member in the shape as shown in FIG.”

Element C of the Invention

“interposing an FRP thread member along with adhesive material between the metallic outer shell member and the FRP outer shell member,
the FRP thread member maintaining a shape of passing through the plurality of the through holes and running alternately on inner and outer surface of the metallic outer shell member”

FRP Strip ≠ “FRP thread member” passes through only one through-hole ⇒ the Defendant's Product does not satisfy Element C

SCENE 1: 2nd Oral Argument -Explanatory Session-

Noninfringement under the Doctrine of Equivalents No satisfaction of the 1st Requirement (Essential Part)

Problem to be Solved by the Invention (【0004】)

The present invention has the objective of “providing a hollow golf head capable of enhancing the bonding strength of a metallic outer shell member and an FRP outer shell member, regardless of the kind of metallic material used in the metallic outer shell member.”

Effect of the Invention (【0007】)

“when a force to detach the FRP outer shell member is applied, the thread member works to tie the FRP outer shell member to the metallic outer shell member because the thread member maintains the shape of hooking the metallic outer shell member on the surface opposite to the bonding surface.”



Enhancing the bonding strength

= when a force to detach is applied, the FRP **thread member** maintains the **shape of hooking** the metallic outer shell member **on the surface opposite to the bonding surface**.

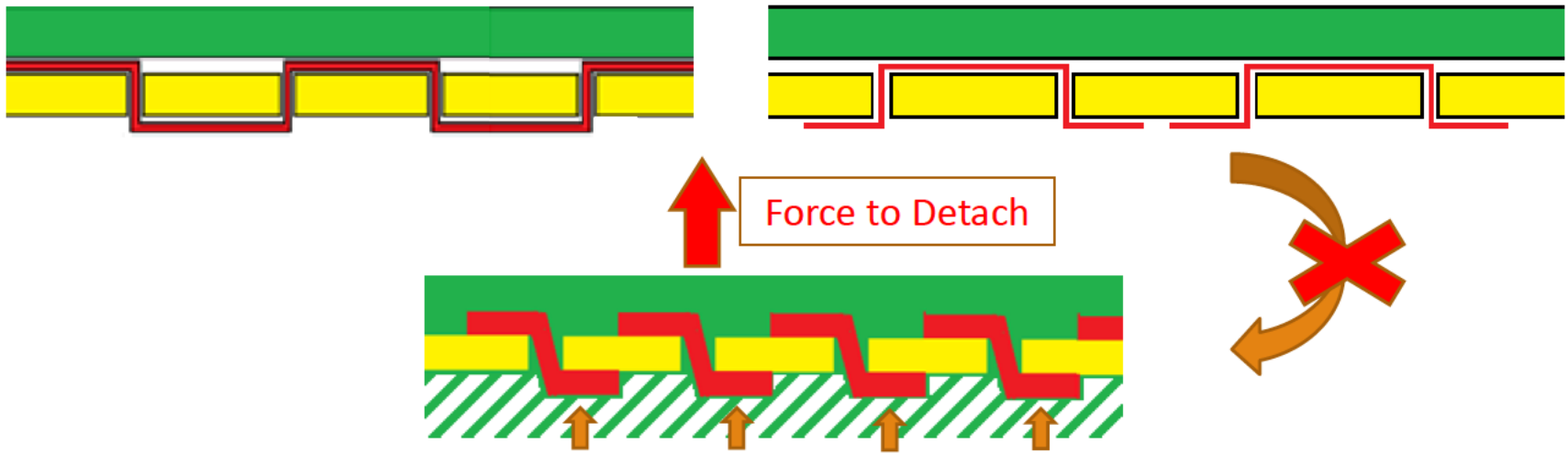
Essential Part of the Invention

= An FRP thread member passes alternately through multiple through-holes

SCENE 1: 2nd Oral Argument -Explanatory Session-

Noninfringement under the Doctrine of Equivalents

No Satisfaction of the 2nd Requirement (Possibility to Replace) /
the 3rd Requirement (Easiness to Replace)



Each of the five short and small FRP strips passes through one hole only
⇒ which does not offer a sufficient bonding strength because it is unable to tightly hook the metallic outer shell member on the surface opposite to the bonding surface when a force to detach the outer shell member is applied.

= an effect equivalent to that of the Invention cannot be provided

No Possibility to Replace

No Easiness to Replace

SCENE 1: 2nd Oral Argument -Explanatory Session-

Noninfringement under the Doctrine of Equivalents The 5th Requirement (Intentional Exclusion)

The technical scope of the Invention at the time of filling (Element C)

“A plurality of through-holes are provided in the bonding portion of the metallic outer shell member; the bonding portion of the metallic outer shell member is bounded to the bonding portion of the FRP outer shell member by interposing an FRP thread member along with adhesive material between the metallic outer shell member and the FRP outer shell member; the FRP thread member maintaining a shape of passing through the plurality of the through-holes”

Notification of Reasons for Refusal

“The structure of how the FRP thread member passes through the plurality of through-holes is unclear.”

The technical scope of the Invention after the amendment (Element C)

“A plurality of through-holes are provided in the bonding portion of the metallic outer shell member; the bonding portion of the metallic outer shell member is bounded to the bonding portion of the FRP outer shell member by interposing an FRP thread member along with adhesive material between the metallic outer shell member and the FRP outer shell member; the FRP thread member maintaining a shape of passing through the plurality of the through-holes and running alternately on inner and outer surfaces of the metallic outer shell member.”

The Written Argument

“The examiner has found that ‘the structure of how the FRP thread member passes through the plurality of through-holes is unclear’; however, we believe that the amendment has made this point clear.”

The structure of “having a thread member pass through the plurality of the through-holes” is limited to the structure of “running alternately on inner and outer surfaces of the metallic outer shell member” = **Intentional Exclusion**

Noninfringement under the Doctrine of Equivalents The 5th Requirement (Intentional Exclusion)

The Supreme Court Decision on March 24, 2017

“...intentional exclusion of Competing Products or Process from the scope of patent claims in the course of filing an application for a patented invention or the existence of other particular circumstances should be ascertained **if the applicant is objectively and visibly determined to have indicated his/her intention of omitting statements concerning Competing Products or Process in the scope of the patent claims in a situation described below, while recognizing that the structure for the Competing Products or Processes could substitute for the structure stated in the scope of the patent claims: the applicant knew the existence of such Competing Products that contain certain parts that are different from the parts in the structure stated in the scope of the patent claims; and the applicant was able to easily conceive the structure for such Competing Products or Processes at the time of filing the application in connection with said differences.**”

The Descriptions of the Specification at the time of filling the application

【0015】“Depending on the size, shape or other factors of the bonding portion 21a of the FRP outer shell member 21, **a plurality of thread members 22 may be arranged on the metallic outer shell member 11 for bonding** so as to further enhance the bonding strength of the metallic outer member 11 and the FRP outer shell member 21.”

The applicant limits the structure to the structure of “having a thread member pass through the plurality of the through-holes and run alternately on inner and outer surfaces of the metallic outer shell member”, while recognizing the structure that “a plurality of thread members may be arranged for bonding” = **Intentional Exclusion**

Q & A Session

- Characteristics of FRP (fiber-reinforced plastic) and epoxy resin
- Comparison of bonding strength between the Invention and the Defendant's Product as well as the modified version of the Defendant's Product
- Reason for Amendments
- Reason for adopting the structure of the Defendant's Product

Q & A Session (Questions from Judge Sano)

Fig. 1

Alternative example of
Invention proposed by
Plaintiff



Fig. 2

Defendant's Product
without FRP lower
outer shell member



SCENE2 ~Procedures thereafter~

- ▲ Court's disclosure of its preliminary view on infringement and Court's attempt to arrange a settlement.
- ▲ Termination of attempt of settlement
- ▲ Examination on damage
(3rd ~5th Oral Argument Date)

SCENE 3 ~ 6th Date for Oral Argument

Rendering of Judgement

Main Text

1. The Defendant shall not manufacture or sell the product in the List appended to this judgment.
2. The Defendant shall dispose of the product in the List appended to this judgment.
3. The Defendant shall pay the Plaintiff 500 million yen and delinquency charges at the annual rate of 5% from December 13th, 2019 to the date of full payment.
4. The Defendant shall bear the court costs.
5. This judgement may be provisionally enforced as far as paragraphs 1 and 3 are concerned.

Non-fulfillment of Element C

Meaning of Element C in the Invention

The “FRP thread member” in Element C means an FRP thread member passing through the plurality of through-holes provided in the bonding portion of the metallic outer shell member; an FRP thread member that passes through only a single through-hole is not included in the above meaning.

Defendant's Product

The strips of the Defendant's Product, each of which passes through only a single through-hole, do not fulfil “FRP thread member” in Element C.

SCENE3: 6th Oral Argument - Rendering of Judgement -

Judgement Reason 2

Infringement under the Doctrine of Equivalents (General Statement)

5 Requirements for Infringement under the Doctrine of Equivalents (Supreme Court "Ball Spline Bearing" Case)

- ① The different part from the accused product is not an essential part of the patented invention (Requirement 1)
- ② Possibility to replace (Requirement 2)
- ③ Easiness to replace (Requirement 3)
- ④ Difficulty in conceiving the product from publicly known art (Requirement 4)
- ⑤ No intentional exclusion (Requirement 5)

Method of Judgement for Requirement 1

The essential part of a patented invention – i.e. a characteristic part which constitutes a unique technical idea that is not seen in prior art – should be found based on the scope of claims and the statements in the description as to prior art etc.

Method of Judgement for Requirement 5

Considering prosecution history

Equivalent material as of the filing date (Supreme Court, The "Maxacalcitol" Grand Panel Case)

Infringement under the Doctrine of Equivalents (Requirement 1)

Essential parts of the Invention

There are 2 features for achieving the objective of the Invention, namely enhancing the bonding strength between **the metallic outer shell member** and **the FRP outer shell member** which are made from different materials:

① **An FRP thread member** is “**interposed**” between **the FRP outer shell member** and **the metallic outer shell member**;

② After having a thermoset **FRP thread member** pass through the through-holes and take the form of “**hooking**,” **the FRP thread member** is thermally cured to maintain the shape and “**hook**” **the metallic outer shell member**.

➡ Even with the structure wherein **an FRP thread member** is divided into pieces and each piece of the divided **FRP thread member** passes through a single through-hole, the above 2 features, “**interposing**” and “**hooking**” do not change and bonding strength is enhanced. Therefore, the structure of having **an FRP thread member** passing through alternately the multiple through-holes cannot be regarded as the essential part of the Invention.

SCENE3: 6th Oral Argument - Rendering of Judgement -

Judgement Reason 4

Infringement under the Doctrine of Equivalents (Requirement 1)

The structure of the Defendant's Product

In the Defendant's Product, each of multiple **FRP strips** corresponding to **the FRP thread member** of the Invention passes through a single through-hole provided in the **metallic outer shell member**, and each **FRP strip** is thermally cured to **"hook"** the metallic outer shell member. Moreover, **the metallic outer shell member** is bonded with **the FRP outer shell member** by the **interposed** FRP strips. In this manner, the Defendant's Product can be regarded as fulfilling **"interposing"** and **"hooking"**, which are essential parts of the Invention.

➡ **Accordingly, the Defendant's Product fulfills Requirement 1 of the Doctrine of Equivalents.**

SCENE3: 6th Oral Argument - Rendering of Judgement -

Judgement Reason 5

Infringement under the Doctrine of Equivalents (Requirements 2, 3)

Requirement 2

Even if the Invention changes its structure such that **an FRP thread** is divided into pieces and **each piece of the divided FRP thread member** passes through a single through-hole provided in the **metallic outer shell member**, it can still produce the same effect of enhancing the bonding strength between **the FRP outer shell member** and **the metallic outer shell member** as the Invention.

Requirement 3

The structure of having each of multiple **FRP thread members** pass through a single through-hole can be deemed as being a commonplace structure producing the same effect as the Invention. A person ordinarily skilled in the art could have easily conceived of replacing the structure in the Invention with the structure in the Defendant's Product.

SCENE3: 6th Oral Argument - Rendering of Judgement -

Judgement Reason 6

Infringement under the Doctrine of Equivalents (Requirement 5)

Requirement 5

- The amendment made by the Plaintiff was merely intended to clarify the meaning of “FRP thread member maintaining a shape of passing through the multiple through-holes”. The plaintiff had no intention to narrow the scope of the claim.
- Paragraph [0015] of the description does not describe a structure similar to that of the Defendant’s Product, and as such it cannot be said that the structure of the Defendant’s Product was intentionally excluded from the claim.

 **Accordingly, the Defendant’s Product fulfills Requirement 5 of the Doctrine of Equivalents.**