Trial decision

Invalidation No. 2014-800108

Osaka, Japan
Demandant ASHIMORI INDUSTRY CO. LTD.

Osaka, Japan
Patent Attorney TAKEYASU, Hideo

Kanagawa, Japan
Demandee SHONAN PLASTIC MFG. CO. LTD.

Tokyo, Japan
Patent Attorney KATO, Takashi

Tokyo, Japan
Patent Attorney HAYAKAWA, Yuji

Tokyo, Japan
Patent Attorney MURASAME, Keisuke

The case of trial regarding the invalidation of Japanese Patent No. 5291689 , entitled "METHOD OF EVERTING PIPE LINING MATERIAL" between the parties above has resulted in the following trial decision:

Conclusion

The correction shall be approved.

The trial of the case was groundless.

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

Reason

No. 1 Demand

The patent regarding the invention according to Claim 1 of Japanese Patent No. 5291689 (including one claim at the time of registration) was invalidated. The

demandant makes a request that the costs in connection with the trial shall be borne by the demandee.

No. 2 Primary history of the procedures

The demandee is a patentee of the patent according to Claim 1 of the Patent No. 5291689 , entitled "METHOD OF EVERTING PIPE LINING MATERIAL" (hereinafter referred to as the "Patent").

The Patent relates to Japanese Patent Application No. 2010-249261, which is an additional application for a part of Patent No. 2005-347430 filed December 1, 2005 (Priority Claim based on earlier application: December 28, 2004, hereinafter referred to as the "Original Application"), and was registered on June 14, 2013.

The demandant requested a trial for invalidation of the Patent on June 24, 2014. The demandee filed a written correction request and an answer for it on September 11, 2014. The demandant filed a rebuttal on November 4, 2014.

The chief administrative judge gave both parties Notification of trial examination during an oral proceeding on November 20, 2014. The demandant and demandee filed oral proceedings statement brief on December 19, 2014.

The first oral proceedings were held on January 14, 2015 in the presence of the demandant and a representative of the demandee.

No. 3 Applicability of the Correction

1 Purport of correction of the demandee

The demandee requests correction of specification and scope of claims in the Patent No. 5291689 as described in corrected specification and scope of claims appended to written correction request.

2 Gist of the Correction

(1) The correction requested by the demandee is as follows:

Claim 1 in the scope of claims is corrected as follows.

- Before correction (at the time of registration)

"A method of everting a pipe lining material for everting and inserting a pipe lining material into a conduit including:

opening an opening of a container that contains a rotating body on which the lining material is to be wound, includes the opening where the pipe lining material passes, and houses the pipe lining material;

taking up the pipe lining material onto the rotating body in the container through the opening, to house the pipe lining material in the container;

connecting a conduit to the opening of the container, to guide the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening;

and everting the pipe lining material via the inversion nozzle."

- After correction

"A method of everting a pipe lining material for everting and inserting a pipe lining material into a conduit including:

opening an opening of a container that contains a rotating body on which the lining material is to be wound, includes the opening where the pipe lining material passes, and houses the pipe lining material;

taking up the pipe lining material onto the rotating body in the container through the opening, to house the pipe lining material in the container;

connecting a conduit to the opening of the container, guiding one end of the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening, to fix it to the inversion nozzle, while moving the container to a workplace, with the one end of the pipe lining material fixed to the inversion nozzle;

and everting the pipe lining material via the inversion nozzle."

(2) Judgement on the applicability of the Correction

A Detail of the Correction

The Correction corrects the description "connecting a conduit to the opening of the container, to guide the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening" described in Claim 1, into the description "connecting a conduit to the opening of the container, guiding one end of the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening, to fix it to the inversion nozzle, while moving the container to a workplace, with the one end of the pipe lining material fixed to the inversion nozzle".

B Purpose of the correction

The patent invention, the pipe lining material inversion method, described in the corrected Claim 1 reveals that the pipe lining material is fixed to the inversion

nozzle before transfer to a workplace because one end of the pipe lining material is guided to the inversion nozzle to be fixed to the inversion nozzle and the container is moved to the workplace with the one end of the pipe lining material fixed to the inversion nozzle. On the other hand, the patent invention, the pipe lining material inversion method, described in the former Claim 1 specifies that the pipe lining material stored in the container is guided to the inversion nozzle, while not specifying that one end of the pipe lining material is guided to the inversion nozzle to be fixed to the inversion nozzle, and whether the pipe lining material is fixed to the inversion nozzle in the workplace or before that.

Therefore, the Correction further limits technical matters (hereinafter referred to as "Matters Specifying The Invention") required for specifying the invention in Claim 1 in the scope of claims. The purpose is restriction of the scope of claims stipulated in the proviso 1 to Article 134-2(1) of the Patent Act.

C New matter

It will be apparent from the description of paragraph [0023] in the patent specification that the correction was conducted within the scope of the description of the patent specification.

D Substantial expansion and change

As described in B, the Correction further limits the Matters Specifying The Invention in Claim 1 in the scope of claims before correction. The Correction does not substantially expand or change the scope of claims.

E Regarding argument of demandant

The demandant alleges that the Correction adds a new configuration not described in the scope of claims, in order to solve the technical problem which is not described in the scope of claims before correction, specification, and drawings, thereby providing a new effect not described in the scope of claims before correction, specification, and drawings, and that it falls under the description "substantially expands or changes the scope of claims" in Article 126(6) of the Patent Act which is applied pursuant to Article 134-2(9) (pages 3-4 of a rebuttal to the case dated on November 4, 2014).

As the argument is examined, it is obvious that the Correction is restriction of the scope of claims, including all the Matters Specifying The Invention before correction, and that it does not substantially expand or change the scope of claims.

Therefore, any of the argument of the demandant cannot be accepted. However, the new effect alleged by the demandant is not described in the specification or scope of claims corrected by the correction, thus it does not give a reason to determine whether the correction is applicable or not.

(3) Summary

As described above, the Correction aims at details in the proviso 1 to Article 134-2(1) of the Patent Act, and does not violate the provisions of Articles 126(5) and (6) of the Patent Act which are applied mutatis mutandis pursuant to the provisions of Article 134(9) of the Patent Act.

Therefore, the Correction shall be approved.

No.4 Gist of the Invention

As described in No.3, the Correction is approved. The invention relating to the patent to be judged by the trial decision is the one after the correction. The Gist thereof is as follows, which are specified by the details described in Claim 1 in the scope of claims, in view of the corrected specification, drawings (hereinafter referred to as "Description And Other Materials Of The Patent", including the description of drawings), and description in the scope of claims. (Hereinafter the invention relating to Claim 1 is referred to as the "Invention".)

"The pipe lining material everting method for inversely inserting a pipe lining material into a conduit including:

opening an opening of a container that contains a rotating body on which the lining material is to be wound, includes the opening where the pipe lining material passes, and houses the pipe lining material;

taking up the pipe lining material onto the rotating body in the container through the opening, to house the pipe lining material in the container;

connecting a conduit to the opening of the container, guiding one end of the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening, to fix it to the inversion nozzle, while moving the container to a workplace, with the one end of the pipe lining material fixed to the inversion nozzle;

and everting the pipe lining material via the inversion nozzle."

No. 5 Argument of parties

1 Argument of demandant about reasons for invalidation

The Invention has reasons 1-4 for invalidation, as described in (1)-(4). The patent of the Invention falls under Article 123(1)(ii) of the Patent Act, and it should be invalidated (overall purport of the record of the first oral proceedings and argument).

A documentary evidence is offered as a means of proof. The following documents (Evidence A No. 1 to A No. 3) as described in (5) are submitted.

(1) Reason 1 for invalidation

The Invention is an invention described in Evidence A No. 1. It falls under Article 29(1)(iii) of the Patent Act, and the demandant should not be granted a patent for the invention.

(2) Reason 2 for invalidation

The Invention could be easily made by a person skilled in the art based on Evidence A No.1 as a primary cited document and Evidence A No.2 as a secondary cited document, and the demandant should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

(3) Reason 3 for invalidation

The Invention could be easily made by a person skilled in the art based on the invention described in Evidence A No. 1, and the demandant should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

(4) Reason 4 for invalidation

The Invention could be easily made by a person skilled in the art based on Evidence A No.1 as a primary cited document and Evidence A No.3 as a secondary cited document, and the demandant should not be granted a patent for the invention under the provisions of Article 29(2) of the Patent Act.

(5) Means of proof

Evidence A No. 1: microfilm including the content of specification and drawings attached first to the application of Japanese Utility Model Application No. S59-27523(Japanese Unexamined Utility Model Application Publication No. S60-138737)

Evidence A No. 2: Japanese Unexamined Patent Application Publication No. S57-47085

Evidence A No. 3: Japanese Unexamined Patent Application Publication No. 2004-188818

2 The demandee's allegation

The demandee requests the trial decision, "The trial of the case is groundless. The costs in connection with the trial shall be borne by the demandant", and alleges that none of the reasons 1-4 for invalidation alleged by the demandant has reasons.

No. 6 Judgement of the collegial body

The collegial body understands, about the Patent, as described below that none of the reasons 1-4 for invalidation alleged by the demandant has reasons, thus the patent for the invention according to Claim 1 of the Patent cannot be invalidated.

1 Regarding the Invention

The gist of the Invention is as recognized in No. 4.

2 Regarding evidences

(1) Description in Evidence A No.1

Evidence A No. 1 which is a publication distributed in Japan before the priority date of the Original Application for the Patent, describes the following matters. Underline was added in the body.

A "Conduit lining apparatus which is used in a lining method of storing a cylindrical lining material with adhesive applied on an inner surface, in a pressure vessel, inserting the lining material into a conduit inversely with fluid pressure, and bonding the everted lining material to the inner surface of the conduit via the adhesive, configured to include: a lining apparatus body having a lining material outlet arranged in a lower part of a front face of the pressure vessel, and a rail extending forward from

below the outlet; a lining material mounting fixture which is placed on the rail so as to slide forward and backward, and includes a lining material fixing tool arranged in a front end section for annularly fixing the lining material, a rocking shutter arranged in a rear end section, and a connection tool to be detachably mounted on the lining material outlet in the pressure vessel; a mirror plate having a hose mounting fixture which can be detachably connected to the lining material mounting fixture and connects one end of a heating hose to be inserted in the lining material and sufficiently thinner than the lining material; and a tip fixture having a lid plate with a discharge fixture which is fixed at the other end of the conduit to be lined, to discharge the fluid in the lining material" (claim of utility model)

B "Thus, during a period from preparation of adhesive to the start of construction, the adhesive is left at ordinary temperature or cooled to prevent curing reaction, and the inside of the lining material in the conduit is heated after the lining material is inserted into the conduit, to facilitate the curing reaction of the adhesive, resulting in rapid curing.

For the above purpose, there is a method of invention described in Japanese Patent Application No. S55-19569, which was filed earlier by an applicant or the like. The method of invention includes: connecting a heating hose sufficiently thinner than the lining material and having a large number of small holes, to an end of the lining material; inserting the heating hose into the lining material, with the lining material inserted in the conduit; supplying steam under pressure into the heating hose; leaking the steam into the lining material through the small holes of the heating hose, to heat the adhesive with the steam via the lining material; and rapidly curing the adhesive.

The device has an object to provide a new conduit lining apparatus having a function of implementing the method." (specification p.4, l.8-p. 5, l. 8)

C "Drawings illustrate one embodiment of the lining apparatus of the device. In FIG. 1 and FIG. 2, 1 is a track, and the lining apparatus body 2 is mounted on the track 1. In the lining apparatus body 2, a pressure vessel 3 includes a reel 4 for winding the lining material, which is pivotally supported in a rotatable manner, as shown in FIG. 3.

In a front lower part of the pressure vessel 3, a lining material outlet 5 for connecting a lining material mounting fixture, which is described below, is formed. A lining material inlet 6 is normally shielded with a lid 7. The lid 7 is opened in introducing the lining material, to open the lining material inlet 6. When the lid 7 is removed from the lining material inlet 6, the lid 7 can be easily suspended above with a weight balancer 8.

The reel 4 is connected to a decelerator 10 via a chain 9, at the outside of the pressure vessel 3. The decelerator 10 is connected to a DC motor 13 via a motor 11 with continuously variable transmission and a clutch 12. The DC motor 13 is driven by a battery of the track 1. The motor 11 with continuously variable transmission is driven by an external power source.

In an upper part on an inner surface of the pressure vessel 3, a snow horn 14 and an agitation fan 15 are arranged. The snow horn 14 is connected to a carbon dioxide bottle 16 mounted on the track 1, to discharge powder dry ice into the pressure vessel. The snow horn 14 and the agitation fan 15 are driven by the battery of the track 1.

A squeezer 17 for applying the adhesive onto the inner surface of the lining material is arranged forward of the lining material inlet 6. The squeezer 17 includes a pair of rotating rollers 18, 19, and squeezes the lining material filled with the adhesive by means of the rotating rollers 18, 19, to uniformly apply the adhesive to the inside of the lining material, while introducing the lining material into the pressure vessel, to be wound on the reel 4.

A lining material inversion speed adjusting device 20 arranged to be rotated with respect to the pressure vessel 3 includes a roller 21 arranged at the tip to measure inversion speed of the lining material, in contact with the outermost surface of the lining material wound on the reel 4, and feeds back the speed to the motor 11 with continuously variable transmission to adjust rotation speed of the reel 4 so that the lining material may be inverted at a constant speed.

A lining material inversion detection device 22 for detecting the progress of the lining material is configured to feed back the fact that the inversion of the lining material has been stopped for some reason when it occurs, to the motor 11 with continuously variable transmission, to stop the rotated reel 4.

A rail 23 is arranged forward of a frame 24 with the lining apparatus body 2 mounted thereon, to protrude forward. A lining material mounting fixture 25 is placed on the rail 23 so as to slide forward/backward. The lining material mounting fixture 25 includes: a lining material fixing tool 26 arranged in a front end section for annularly fixing the lining material; a rocking shutter 27 arranged in a rear end section; and a connection tool 28 to be detachably mounted on the lining material outlet 5 in the pressure vessel.

Pressure fluid inlets 29, 30 supply pressure fluid into the pressure vessel 3 and the lining material mounting fixture 25.

A mirror plate 31 in FIG. 4 for closing a rear end of the connection tool 28 of

the lining material mounting fixture 25 is configured to be detachably mounted on the connection tool 28. The mirror plate 31 includes a hose mounting fixture 32 and an air inlet 33.

A guide pipe 35 is mounted at a tip of the lining material fixing tool 26 via a bent pipe 34 having a tip connected to a terminal of a conduit 37 via a bent pipe 36. A tip fixture 38 connected to the other end of the conduit 37 via the bent pipe 39 is closed by the lid 40 with a fluid discharge fixture 41 mounted thereon. The fluid discharge fixture 41 is a hollow needle and penetrates through the lid 40. The base of the fluid discharge fixture 41 is connected to a steam treatment apparatus." (specification p. 6, l. 10-p. 10, l. 13)

D "Thus, in storing the lining material in the pressure vessel 3, adhesive is filled in the lining material 42. The lining material 42 is fed between the rotating rollers 18, 19 from its tip, is squeezed by the rotating rollers 18, 19 to uniformly apply the adhesive in the lining material 42, is introduced into the pressure vessel 3 through the lining material inlet 6, and is wound on the reel 4. A heating hose 43 having substantially the same length as the lining material is connected to the tip of the lining material 42. A large number of small holes are formed in the heating hose 43, to leak steam under pressure supplied therein.

The inversion speed adjusting device 20 brings the roller 21 in contact with the outermost surface of the lining material 42 wound on the reel 4 to measure advancing speed of the lining material 42, feeds back it to the motor 11 with continuously variable transmission to adjust rotation speed of the reel 4, and introduces the lining material 42 at a constant speed, thereby applying uniform amount of adhesive in the lining material 42.

In order to prevent the adhesive from being cured early before lining construction, after the lining material 42 is stored in the pressure vessel 3, liquefied carbon dioxide, as powder dry ice, is sprayed from the snow horn 14 onto the surface of the lining material 42, to cool the adhesive via the lining material 42.

When the place where the lining material 42 is introduced into the pressure vessel 3 is different from the place of lining construction, it is required to transport the pressure vessel 3 storing the lining material 42 by the track 1. When doing so, the reel 4 is slowly rotated by the DC motor 13 to transport the vessel. The adhesive stagnates in a lower part in the lining material 42, to prevent early local curing. It is preferable that the powder dry ice is sprayed from the slow horn 14 during the transportation, and that the air in the pressure vessel 3 is agitated by the agitation fan 15, to transport it in a cold state.

On arrival at the construction site, the rotated reel 4 is stopped temporarily, a terminal of the lining material 42 is drawn out from the lining material outlet 5, and the shutter 27 is opened to attach it, in a ring shape, to the lining material fixing tool 26 through the lining material mounting fixture 25. The connection tool 28 and the lining material outlet 5 are connected to each other. A tip of the lining material fixing tool 26 is connected to the conduit 37 via the bent pipe 34, the guide pipe 35, and the bent pipe 36. The tip fixture 38 is mounted on the other end of the conduit 37, via the bent pipe 39. The fluid discharge fixture 41 of the tip fixture 38 is removed.

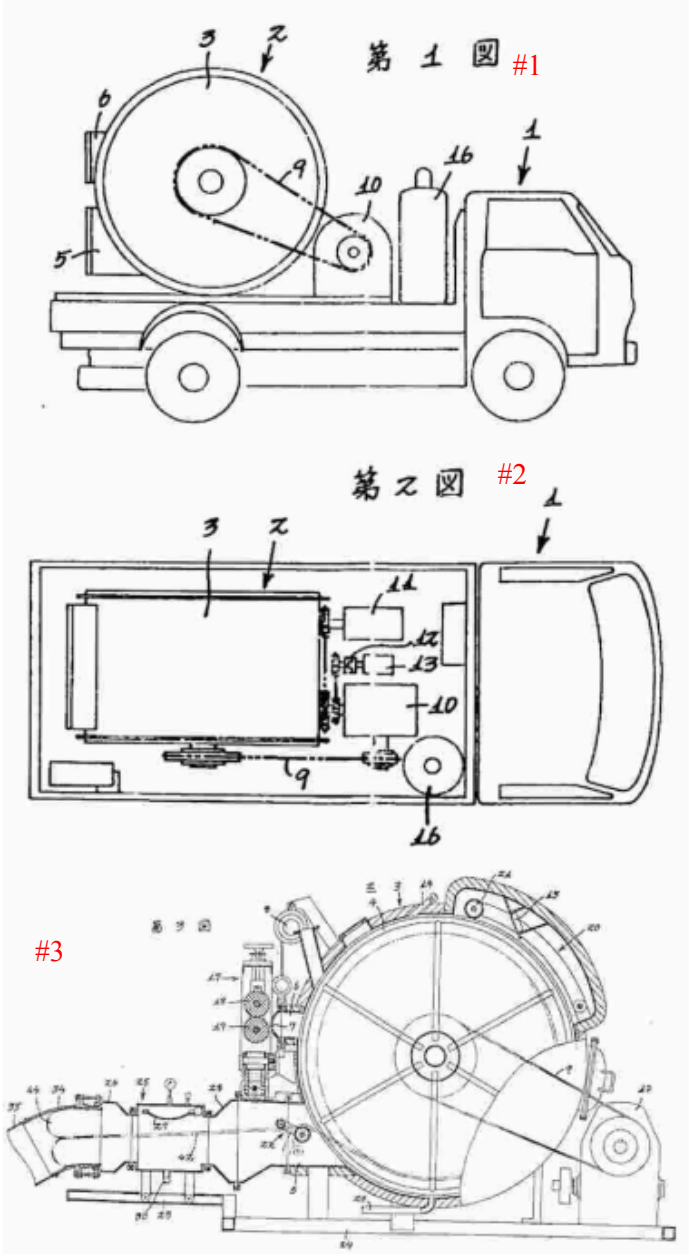
Pressure fluid (compressed air, for example) is supplied from the pressure fluid inlet 29. The reel 4 is driven by the motor 11 with continuously variable transmission, while everting the lining material 42 with fluid pressure. An everted part 44 of the lining material 42 is moved forward toward the other end of the conduit 37, while everting the lining material 42." (specification p. 10, l. 14-p. 13, l. 7)

E "4. Brief description of drawings

FIG. 1 depicts a side view showing one embodiment of a lining apparatus of the device mounted on a track. FIG. 2 depicts a plan view thereof. FIG. 3 depicts a central longitudinal sectional view of a principal section of the lining apparatus of the device. FIG. 4 depicts a central longitudinal sectional view of the principal section of the lining apparatus of the device, when adhesive is heated.

2 ... lining apparatus body	3 ... pressure vessel
4 ... reel	5 ... lining material outlet
6 ... lining material inlet	23 ...rail
25 ... lining material mounting fixture	26 ... lining material fixing tool
27 ... shutter	28 ...connection tool
31 ... mirror plate	32 ...hose mounting fixture
37 ... conduit	38 ... tip fixture
40 ... lid	41 ... fluid discharge fixture
42 ... lining material	43 ... heating hose"

(specification p. 15, l. 18-p. 16, l. 15)

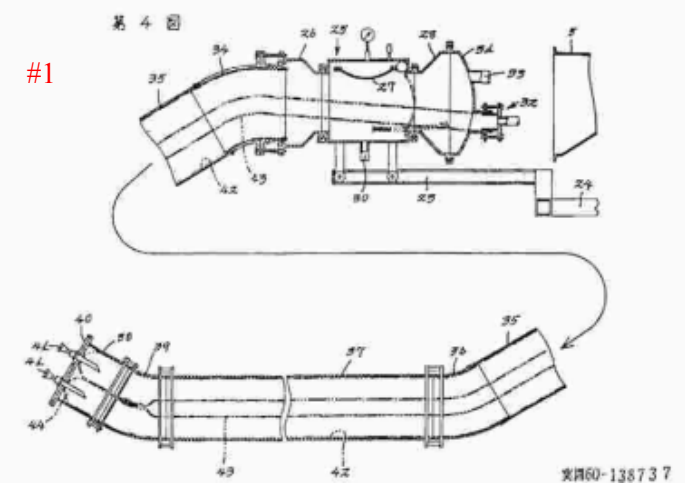


#1 FIG. 1

#2 FIG. 2

#3 FIG. 3

#1



#1 FIG. 4

" (FIGS. 1-4)

(2) Description in Evidence A No. 2

Evidence A No. 2 which is a publication distributed in Japan before the priority date of the Original Application for the Patent, describes the following matters.

A "1. Conduit lining method including: supplying reactive curable adhesive from one end of a flexible cylindrical lining material; moving the lining material in its longitudinal direction, while adjusting the amount of adhesive to be applied onto an inner surface thereof through a nip roller; sequentially introducing the lining material with the adhesive applied thereon into a cooling vessel which keeps inside at cold atmosphere; storing the lining material with the adhesive applied on the inner surface over the entire length thereof, in the cooling vessel; drawing one end of the lining material out of the cooling vessel, to be fixed in an annular shape; everting the lining material inside out, in a folded part of the lining material, while applying fluid pressure from the outside of the lining material of the annular fixed part; moving the folded part from one end of the conduit to the other end thereof; bringing the everted lining material into pressure contact with the inner surface of the conduit via the adhesive with the fluid pressure; and curing the adhesive to bond the lining material and the conduit to each other

2. Conduit lining method described in Claim 1 in the scope of claims including: storing the lining material in a first cooling vessel maintained in advance at cooling atmosphere, to cool it; drawing the lining material sequentially out of the cooling vessel, to apply the adhesive onto the inner surface; causing the lining material to pass

through the nip roller, to be introduced into a second cooling vessel sequentially

4. Conduit lining method described in Claim 1 in the scope of claims including: fixing the lining material drawn out of the cooling vessel to a tip of a pressure vessel in an annular shape, through the pressure vessel; and supplying pressure fluid into the pressure vessel to apply fluid pressure to a rear part of the annular fixed part of the lining material

6. Conduit lining method described in Claim 1 in the scope of claims including: everting the lining material by fluid pressure; and moving a folded part thereof in the conduit

9. Conduit lining method described in Claim 1 in the scope of claims including: applying fluid pressure in the lining material after inserting the everted lining material over the entire length of the conduit, to heat the lining material while bringing the lining material into pressure contact with the inner surface of the conduit; and curing the adhesive" (claims 1, 2, 4, 6, 9 in the scope of claims)

B "In consideration of the above circumstances, an object of the Invention is to make time to spare after preparation of adhesive which has a short pot life under at ordinary temperature by storing the lining material in cold atmosphere till inverse insertion to extend the pot life of the adhesive, and to quickly cure the adhesive at ordinary temperature or when heated after the lining material is inversely inserted into the conduit, thereby reducing overall construction time including adhesive curing time." (p. 3, upper left l. 16-upper right l. 4)

C "FIG. 2 depicts one example of a lining step of inversely inserting the lining material 13 stored in the cooling vessel 2, into the conduit. A pressure vessel 18 has a tip connected to an elastic guide pipe 19. A tip of the guide pipe 19 enters into a work hole 20, to be connected to a terminal of a guide pipe 21. A slit 22 where the flat-folded lining material 13 can pass is formed at a rear end of the pressure vessel 18. A pressure fluid inlet 23 is formed on a side wall of the pressure vessel 18.

Thus, one end of the lining material 13 housed in the cooling vessel 2 and placed at cold atmosphere is guided first by a guide roller 12, to be drawn out of a lining material outlet 10, is inserted from the slit 22 into the pressure vessel 18, passes through the pressure vessel 18, and also passes through a guide pipe 19, to be fixed to a tip of the guide pipe 19 in an annular shape. When pressure fluid, such as compressed air, is supplied from the pressure fluid inlet 23 in this state, pressure thereof passes through the guide pipe 19 to externally apply pressure to a rear part of the annular fixed part of the lining material 13. Therefore, the lining material 13 is

everted inside out, and the folded part 24 thereof moves in the conduit 21 from one end to the other end. The adhesive 14 applied on the inner surface of the everted lining material 13 is transferred to an outer surface thereof. The lining material 13 is brought into pressure contact with the inner surface of the conduit 21 via the adhesive. The lining material 13 is everted continuously over the entire length thereof, and is inserted over the entire length of the conduit 21 to be brought into pressure contact therewith.

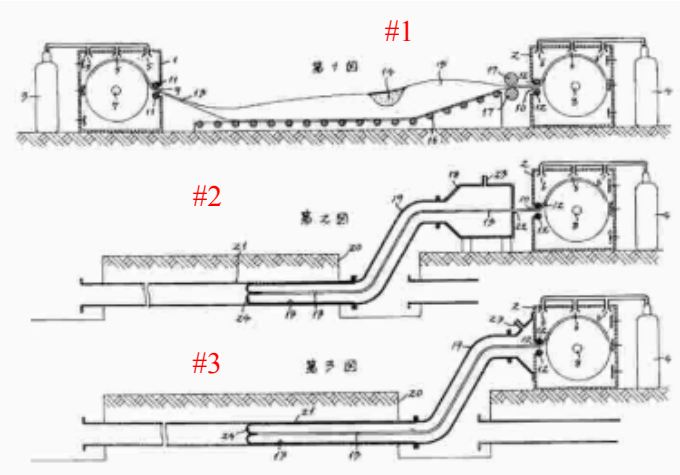
If the fluid pressure inside the lining material 13 is maintained, curing occurs according to the behavior of the adhesive in ordinary temperature in the conduit, and the lining material 13 and the conduit 21 are strongly bonded to each other. When curing speed of the adhesive 14 in ordinary temperature is not sufficiently high, hot atmosphere is formed in the lining material 13 in pressure contact with the conduit 21, to facilitate curing the adhesive. When the hot atmosphere is formed in the lining material 13, hot air or steam under pressure may be directly supplied into the lining material 13. However, the following method is appropriate for substantially uniform heating so as to prevent significant temperature unevenness over the entire length of a long conduit: inserting a hose with many pinholes formed on an outer circumference over the entire length thereof, into the lining material 13; supplying steam under pressure into the hose, to leak the steam under pressure between the hose and the lining material 13 through the pinholes of the hose; and forming hot atmosphere in the lining material 13. The inside of the lining material 13 is substantially uniformly heated entirely, and is properly heated without excessive heating. The adhesive is quickly hardened, while preventing thermal deterioration of the lining material. In inserting the hose in the lining material 13, when the lining material 13 is inversely inserted into the conduit 21, the hose is connected to a free end of the lining material 13 to draw the hose into the everted lining material 13 as the lining material 13 is everted, thereby achieving the desired object without requiring a special step for inserting the hose.

According to the Invention, the lining material 13 with the adhesive 14 applied thereon is stored in cold atmosphere, thereby cooling the adhesive 14, extending pot life, and ensuring safe work, while preventing the adhesive from being cured or viscosity from being changed during work. Especially in summer, the effect is exerted." (p. 3 lower right l. 9- p. 4 lower left l. 13)

D "However, according to the Invention, pot life of the adhesive can be extended by 24 hours or more by sufficiently reducing the temperature in the cooling vessel 2. It is possible to prepare the lining material 13 with adhesive 14 applied

intensively in a factory or the like, and to transport the lining material to a work site while cooling it in the cooling vessel 2, to be used for lining. When the adhesive is applied in the factory or the like, the adhesive can be prepared and applied while being cooled, thereby allowing the use of adhesive having significant short curing time at ordinary temperature. Overall work time in a lining work site can be significantly reduced." (p. 5, upper left l. 7-l. 20)

E "



#1 FIG. 1
#2 FIG. 2
#3 FIG. 3

" (FIGS. 1-3)

(3) Description in Evidence A No. 3

Evidence A No. 3 which is a publication distributed in Japan before the priority date of the Original Application for the Patent, describes the following matters.

A "[Claim 1]

Conduit repairing method including: hermetically mounting one folded end of a pipe lining material impregnated with uncured thermosetting resin, on an inversion nozzle; attaching a warm-water hose to the other end of the pipe lining material hermetically closed; storing the pipe lining material and the warm-water hose in an airtight container; separating the pipe lining material from the airtight container after inversely inserting the pipe lining material into a conduit with water pressure applied in the airtight container; hermetically closing a separation part of the pipe lining material with a closing nozzle; discharging warm water from the warm-water hose,

which is drawn into the pipe lining material and hermetically passes through the closing nozzle, into the pipe lining material; repeatedly discharging the warm water in the pipe lining material to circulate the warm water in the pipe lining material; and heating the pipe lining material entirely, to cure the thermosetting resin impregnated in the pipe lining material.

[Claim 3]

Conduit repairing method described in Claim 1 or 2, including a warm-water hose container on which the airtight container is detachably mounted, and a pipe lining material container."

(Claims 1, 3 in the scope of claims)

B "Therefore, according to the invention described in Claim 3, the warm-water hose container is arranged in a construction site, while a pipe lining material manufactured in a factory and stored in the pipe lining material container is transported to the construction site. Only the pipe lining material container needs to be transported, thereby enabling compact transportation and reduction of transportation cost." (paragraph[0014])

C "FIGS. 1-5 depict cross-sectional views indicating the conduit repairing method of the Invention, in the order of processes thereof.

As shown in FIG. 1, a cylindrical warm-water hose container 1 and a rectangular box-shaped pipe lining material container 2 independently installed on the ground, which are detachably connected to each other. An opening nozzle section 1a of the warm-water hose container 1 faces an opening nozzle section 2a of the pipe lining material container 2. They are connected to each other by a connection tube 3. The connection tube 3 is fixed with a single touch operation by means of coupling joints 4 arranged at both ends thereof. The warm-water hose container 1 and the pipe lining material container 2 can be connected to each other detachably and hermetically.

In the warm-water hose container 1, a flexible warm-water hose 5 is stored in a wound state. A rope 6 is connected to one end of the warm-water hose 5.

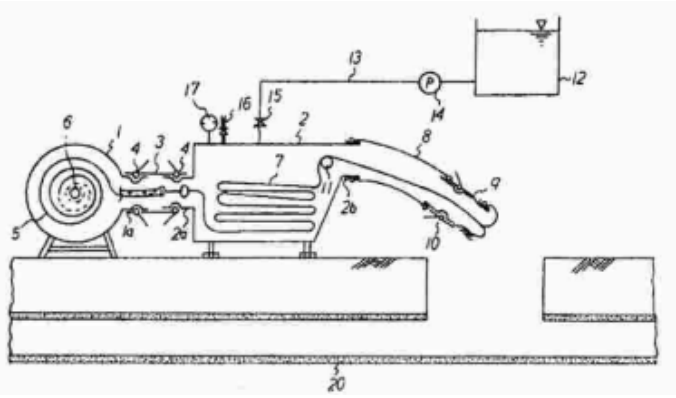
In the pipe lining material container 2, an elastic pipe lining material 7 is folded in multiple layers. One end of the pipe lining material 7 hermetically closed is connected to a tip of the warm-water hose 5. The pipe lining material 7 is formed by covering an outer surface of tubular non-woven fabric, such as polyester, vinylon, or acrylic, impregnated with uncured thermosetting resin, with an airtight plastic film, such as polyurethane or polyethylene. As the uncured thermosetting resin impregnated in the tubular non-woven fabric, unsaturated polyester resin, vinyl ester

resin, or epoxy resin is used.

One end of a guide tube 8 is connected to the opening nozzle 2b of the pipe lining material container 2. An inversion nozzle 9 is detachably mounted to the other end of the guide tube 8, with a single touch operation by means of a coupling joint 10. A tip of the pipe lining material stored in the pipe lining material container 2 is hermetically attached to the inversion nozzle 9, with a tip of the pipe lining material 7 externally folded. The tip of the pipe lining material 7 folded in the pipe lining material container 2 is guided by a guide roller 11, to be drawn to the outside through the guide tube 8. The tip is folded externally, as described above, to be hermetically attached to an outer circumference of the inversion nozzle 9." (paragraphs [0016]-[0020])

D "In the method of the Invention, the airtight container includes the warm-water hose container 1 on which the airtight container is detachably mounted, and the pipe lining material container 2. The warm-water hose container 1 is arranged in the construction site, while the pipe lining material 7 manufactured in the factory can be stored in the pipe lining material container 2 and transported to the construction site. Only the pipe lining material container 2 needs to be transported. Therefore, compact transportation and reduction in transportation cost can be achieved." (paragraph [0035])

E "[FIG. 1]



" (FIG. 1)

(4) Invention described in Evidence A No. 1

In Evidence A No. 1, a lining method using devices in 2(1) C-F, which are embodiments of the device in 2(1) A, is described. In 2(1) C, there is a description saying "When the place where the lining material 42 is introduced into the pressure vessel 3 is different from the place of lining construction, ●●● On arrival at the

construction site, the rotated reel is stopped temporarily". It can be said that a device for rotating the reel during transporting the pressure vessel between the place of the pressure vessel and the construction site is described. Thus, it can be acknowledged that the following invention (hereinafter referred to as "Invention A1") is described.

"Lining method which uses a lining apparatus including: a pressure vessel having a lining material inlet and a lining material outlet arranged in a front lower part, and containing a reel on which a lining material is to be wound, pivotally supported in a rotatable manner; a rail extending forward from below the outlet of the pressure vessel; a lining material mounting fixture placed on the rail so as to slide forward/backward, and having a lining material fixing tool arranged in a front end section for annularly fixing the lining material, a rocking shutter arranged in a rear end section, and a connection tool to be detachably mounted on the lining material outlet; a mirror plate having a hose mounting fixture which can be detachably connected to the lining material mounting fixture and connects one end of a heating hose to be inserted in the lining material and sufficiently thinner than the lining material; and a tip fixture having a lid plate with a discharge fixture which is fixed at the other end of the conduit to be lined, to discharge the fluid in the lining material, the lining method being configured to rotate the reel during transporting the pressure vessel from the place where the lining material is introduced into the pressure vessel to the place of lining construction (construction site), to store the cylindrical lining material with adhesive applied on its inner surface, in the pressure vessel, to insert the lining material everted with fluid pressure into a conduit, and to bond the everted lining material on an inner surface of the conduit via the adhesive"

3 Regarding Reasons 2-4 for invalidation

In view of the case, first, we will examine reasons 2-4 for invalidation.

(1) Comparison between the Invention and Invention A1

The description in Invention A1, "the lining method of storing the cylindrical lining material with adhesive applied on its inner surface, in the pressure vessel, inserting the lining material everted with fluid pressure into a conduit, and bonding the everted lining material on an inner surface of the conduit via the adhesive" obviously corresponds to the description in the Invention, "The pipe lining material everting method for inversely inserting a pipe lining material into a conduit".

"Reel", "pressure vessel", "lining material", "lining material mounting fixture with connection tool", and "lining material fixing tool" of Invention A1 correspond to "rotating body", "container", "pipe lining material", "guide pipe", and "inversion

nozzle" of the Invention, respectively.

Both "lining material inlet" and "lining material outlet" in Invention A1 obviously correspond to "opening of the container" in the Invention.

As viewed from the description (indication 2(1) C) in Evidence A No.1, "a terminal of the lining material 42 is drawn out from the lining material outlet 5, and the shutter 27 is opened to attach it, in a ring shape, to the lining material fixing tool 26 through the lining material mounting fixture 25. ●●● Pressure fluid (compressed air, for example) is supplied from the pressure fluid inlet 29. The reel 4 is driven by the motor 11 with continuously variable transmission, while everting the lining material 42 with fluid pressure. An everted part 44 of the lining material 42 is moved forward toward the other end of the conduit 37, while everting the lining material 42.", it can be said that Invention A1 describes a device which connects a lining material fixing tool (guide pipe) to a lining material outlet (opening of the container) of a pressure vessel (container), attaches one end of a lining material (pipe lining material) stored in the pressure vessel to a lining material fixing tool (inversion nozzle) via the lining material outlet and the lining material fixing tool, and everts the lining material via the lining material fixing tool.

In the description of paragraph [0023] in Matters Specifying The Invention, the point is whether the pipe lining material is mounted on the container in a work site or before leaving for the work site. The "work site" in the Invention means a place where the pipe lining material is everted, or a place where a pipe is actually repaired, and corresponds to the "construction site" in Invention A1.

Both are common in the point of

"The pipe lining material everting method for inversely inserting a pipe lining material into a conduit including:

opening an opening of a container that contains a rotating body on which the lining material is to be wound, includes the opening where the pipe lining material passes, and houses the pipe lining material;

taking up the pipe lining material onto the rotating body in the container through the opening, to house the pipe lining material in the container;

connecting a conduit to the opening of the container, guiding one end of the pipe lining material housed in the container to an inversion nozzle via the opening and the conduit connected to the opening, to fix it to the inversion nozzle;

and everting the pipe lining material via the inversion nozzle.",

while different in the following point.

The different feature

In transferring the container (pressure vessel) to the work site(construction site), the Invention specifies that "with the one end of the pipe lining material fixed to the inversion nozzle", while Invention A1 specifies that "rotating the reel".

(2) Consideration on the different feature

In Invention A1, the reel is rotated during transfer to the work site (construction site), in order to prevent local early curing of the adhesive stagnating in a lower part in the lining material, as described in 2(1) D.

Invention A1, certainly, has a configuration of fixing the lining material (pipe lining material) to the lining material fixing tool (inversion nozzle) annularly, while the lining material (pipe lining material) can be attached to the lining material fixing tool (inversion nozzle) only after the arrival at the construction site (work site). The reason why is that, in Invention A1, when the container is transferred to the work site, with the lining material fixed to the lining material fixing tool, without "rotating the reel", the adhesive stagnates in a lower part in the lining material, to cause local early curing.

Therefore, it can be said that there is a disincentive in transferring the container to the work site with the lining material fixed to the lining material fixing tool, without rotating the reel, as described in Invention A1.

The above description is true regardless of the contents of technology described in Evidence A No. 2 and No. 3 which are so-called sub-reference.

Therefore, it cannot be concluded that the person skilled in the art easily conceives of moving the container (pressure vessel) to the work site (construction site) "with the one end of the pipe lining material fixed to the inversion nozzle" in Invention A1.

(3) Summary

Therefore, it cannot be concluded that the Invention could be easily made by a person skilled in the art based on Evidence A No. 1 as a primary cited document. None of the reasons 2-4 for invalidation alleged by the demandant has reasons.

4 Regarding Reason 1 for invalidation

(1) In comparison between the Invention and Invention A1, corresponding features and different features thereof are described in 3(1).

(2) It may be concluded that the different features are substantial differences

as described in 3(1) and (2). Thus, it cannot be concluded that the Invention is identical to the invention described in Evidence A No. 1. None of the reason 1 for invalidation alleged by the demandant has reasons.

No. 7 Conclusion

As described above, since none of the reasons for invalidation alleged by the demandant has reasons, the patent regarding the invention according to Claim 1 cannot be invalidated.

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

March 2, 2015

Chief administrative judge: SUTO, Yasuhiro
Administrative judge: TAGUCHI, Masahiro
Administrative judge: OSHIMA, Shogo