Trial decision

Invalidation No. 2017-800151

Tokyo, Japan	
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The case of trial regarding the invalidation of Japanese Patent No. 5699121, entitled "COAT REMOVING DEVICE FOR COATED CABLE" between the parties above has resulted in the following trial decision.

Conclusion

The correction, regarding Claims [1-3], 4, and 5 after the correction, of the specification and the scope of claims of Japanese Patent No. 5699121 shall be approved as the corrected specification and scope of claims attached to the written correction request.

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 procedures for the patent No. 5699121 of the case is outlined below.

Patent Application (Japanese Patent Application No. 2012-279240)		
Application filing date	December 21, 2012	
Written request for examination	July 29, 2014	

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Notification of reasons for refusal (dispatch date)	October 15, 2014
Written amendment/Written opinion	November 7, 2014
Final notification of reasons for refusal (dispatch	date) November 25, 2014
Written amendment/Written opinion	January 21, 2015
Decision to grant patent (dispatch date)	February 5, 2015
Registration date	February 20, 2015
Demand for invalidation trial	as of December 13, 2017
Written amendment (Written demand for trial)	as of February 21, 2018
Demandee: Written reply of the trial case	as of May 1, 2018
Demandee: Written correction request	as of May 1, 2018
Demandee: Written amendment (Written correction	on request) as of June 10, 2018
Inquiry	as of June 21, 2018
Demandant: Written reply	as of July 9, 2018
Demandant: Written refutation of the trial case	as of July 19, 2018
Notification of matters to be examined	as of August 9, 2018
Demandant: Oral proceedings statement brief	as of September 28, 2018
Demandee: Oral proceedings statement brief	as of September 28, 2018
Demandee: Oral proceedings statement brief (2)	as of October 12, 2018
Oral proceeding	October 12, 2018
Demandee: Written statement	as of October 26, 2018
Demandant: Written statement	as of November 9, 2018
Demandant: Written statement	as of November 12, 2018
Inquiry	as of November 15, 2018
Demandant: Written reply	as of December 4, 2018
Demandant: Written amendment (Written reply)	as of December 21, 2018
Inquiry	as of December 27, 2018
Demandee: Written reply	as of January 21, 2019

No. 2 Regarding the request for correction

1 Content of the request for correction

In the procedure of the Trial, the contents of the correction requested by the patentee (hereinafter referred to as "the Correction") in the written correction request submitted as of May 1, 2018 and amended as of June 10, 2018 are as follows.

- (1) Correction relating to a group of Claims 1 to 3
- A Correction A

The "oblique guide hole" described in Claim 1 of the scope of the claims is

corrected to a "closed oblique guide hole inclined at a constant angle" (The same applies to Claims 2 and 3 which are dependent on the description of Claim 1).

B Correction B

The "arm part located in the through-hole" described in Claim 1 of the scope of claims is corrected to an "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable" (The same applies to Claims 2 and 3 which are dependent on the description of Claim 1).

C Correction C

Description in (1) of the paragraph [0012] of the specification is corrected to ensure consistency with the description in Claim 1 after the correction (The same applies to (2) and (3) which are dependent on the description of (1)).

(2) Correction relating to Claim 4

D Correction D

The "oblique guide hole" described in Claim 4 of the scope of claims is corrected to a "closed oblique guide hole inclined at a constant angle".

E Correction E

The "arm part located in the through-hole" described in Claim 4 of the scope of claims is corrected to an arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable".

F Correction F

Description in (4) of the paragraph [0012] of the specification is corrected to ensure consistency with the description in Claim 4 after the correction.

(3) Correction relating to Claim 5

G Correction G

The "oblique guide hole" described in Claim 5 of the scope of claims is corrected to a "closed oblique guide hole inclined at a constant angle".

H Correction H

The "arm part located in the through-hole" described in Claim 5 of the scope of claims is corrected to an arm part with a fixed angle located in the through-hole and not

rotated in close-distant direction with respect to the coated cable".

I Correction I

Description in (5) of the paragraph [0012] of the specification is corrected to ensure consistency with the description in Claim 5 after the correction.

2 Judgment on suitability of correction

- 2-1 Correction relating to Claims 1 to 3
- (1) Regarding the Correction A
- a. Regarding the object of the correction

According to the description "close oblique guide hole inclined at a constant angle", Claim 1 after the correction concretely specifies and further limits the shape of an "oblique guide hole" in the invention according to Claim 1 before the correction.

Therefore, the Correction A aims at the restriction of the scope of claims stipulated in proviso (1) to Article 134-2(1) of the Patent Act (The same applies to Claims 2 and 3 after the correction).

b. The Correction A substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction A is to make the matter specifying the invention "oblique guide hole" more conceptually specific to the "closed oblique guide hole inclined at a constant angle", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction A falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act (The same applies to Claims 2 and 3 after the correction).

c. The Correction A is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "closed oblique guide hole inclined at a constant angle" is not clearly described in the specification, the "closed oblique guide hole inclined at a constant angle" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction A is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act (The same

applies to Claims 2 and 3 after the correction).

d. The demandee should be granted a patent independently at the time of patent application

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is applied mutatis mutandis by replacing in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction A according to Claims 1 to 3 before the correction.

(2) Regarding the Correction B

a. Regarding the object of the correction

According to the description "arm part with a fixed angle located in the throughhole and not rotated in close-distant direction with respect to the coated cable", Claim 1 after the correction concretely specifies and further limits the shape of an "arm part located in the through-hole" in the invention according to Claim 1 before the correction.

Therefore, the Correction B aims at the restriction of the scope of claims stipulated in proviso (i) to Article 134-2(1) of the Patent Act (The same applies to Claims 2 and 3 after the correction).

b. The Correction B substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction B is to make the matter specifying the invention "arm part located in the through-hole" more conceptually specific to the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction B falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act (The same applies to Claims 2 and 3 after the correction).

c. The Correction B is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable" is not clearly described in the specification, the "arm part with a fixed angle located in the throughhole and not rotated in close-distant direction with respect to the coated cable" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction B is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act (The same applies to Claims 2 and 3 after the correction).

d. The demandee should be granted a patent independently at the time of patent application

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is applied mutatis mutandis by replacing in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction B according to Claims 1 to 3 before the correction.

(3) Regarding the Correction C

a. Regarding the object of the correction

The Correction C, which is a correction only to conform the description in the specification to the description in Claims 1 to 3 after the correction, aims at clarification of an ambiguous statement stipulated in proviso (iii) to Article 134-2 of the Patent Act.

b. Regarding other requirements for correction

The Correction C, which only conforms the description in the specification to the description in Claims 1 to 3 after the correction, is not a correction to substantially enlarge or alter the scope of claims but a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(6) and (5) of the Patent Act which are applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

c. Description about the claims relating to the correction of the specification

The Correction C is made for a group of Claims 1 to 3.

Thus, the Correction C falls under the provisions of Article 126(4) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the

Patent Act.

(4) Regarding a group of claims

Since Claims 2 and 3 before the correction are dependent on Claim 1 before the correction, Claims 1 to 3 before the correction are a group of claims.

The Correction C includes a correction described in [0012] of the specification attached to the application. The paragraph [0012] describes the contents corresponding to Claims 1 to 3.

Thus, the Corrections A to C are made for each of the group of claims, and fall under the provisions of Article 134-2(3) of the Patent Act.

2-2 Correction relating to Claim 4

(1) Regarding the Correction D

a. Regarding the object of the correction

According to the description "closed oblique guide hole inclined at a constant angle", Claim 4 after the correction concretely specifies and further limits the shape of an "oblique guide hole" in the invention according to Claim 4 before the correction.

Therefore, the Correction D aims at the restriction of the scope of claims stipulated in proviso (i) to Article 134-2(1)(i) of the Patent Act.

b. The Correction D substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction D is to make the matter specifying the invention "oblique guide hole" more conceptually specific to the "closed oblique guide hole inclined at a constant angle", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction D falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

c. The Correction D is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "closed oblique guide hole inclined at a constant angle" is not clearly described in the specification, the "closed oblique guide hole inclined at a constant angle" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction D is a correction made within the scope of matters

described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

d. The demandee should be granted a patent independently at the time of patent application

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is applied mutatis mutandis by replacing in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction D according to Claim 4 before the correction.

(2) Regarding the Correction E

a. Regarding the object of the correction

According to the description "arm part with a fixed angle located in the throughhole and not rotated in close-distant direction with respect to the coated cable", Claim 4 after the correction concretely specifies and further limits the shape of an "arm part located in the through-hole" in the invention according to Claim 4 before the correction.

Therefore, the Correction E aims at the restriction of the scope of claims stipulated in proviso (i) to Article 134-2(1) of the Patent Act.

b. The Correction E substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction E is to make the matter specifying the invention "arm part located in the through-hole" more conceptually specific to the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction E falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

c. The Correction E is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "arm part with a fixed angle located in the through-hole and not

rotated in close-distant direction with respect to the coated cable" is not clearly described in the specification, the "arm part with a fixed angle located in the throughhole and not rotated in close-distant direction with respect to the coated cable" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction E is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

d. The demandee should be granted a patent independently at the time of patent application

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is applied mutatis mutandis by replacing in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction E according to Claim 4 before the correction.

(3) Regarding the Correction F

a. Regarding the object of the correction

The Correction F, which is a correction only to conform the description in the specification to the description in Claim 4 after the correction, aims at clarification of an ambiguous statement stipulated in proviso (i) to Article 134-2 of the Patent Act.

b. Regarding other requirements for correction

The Correction F, which only conforms the description in the specification to the description in Claim 4 after the correction, is not a correction to substantially enlarge or alter the scope of claims but a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(6) and (5) of the Patent Act which are applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act, as with the above (1) and (2).

c. Description about the claims relating to the correction of the specification

The Correction F is made for Claim 4.

Thus, the Correction F falls under the provisions of Article 126(4) of the Patent

Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

2-3 Correction relating to Claim 5

(1) Regarding the Correction G

a. Regarding the object of the correction

According to the description "closed oblique guide hole inclined at a constant angle", Claim 5 after the correction concretely specifies and further limits the shape of an "oblique guide hole" in the invention according to Claim 5 before the correction.

Therefore, the Correction G aims at the restriction of the scope of claims stipulated in proviso (i) to Article 134-2(1) of the Patent Act.

b. The Correction G substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction G is to make the matter specifying the invention "oblique guide hole" more conceptually specific to the "closed oblique guide hole inclined at a constant angle", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction G falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

c. The Correction G is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "closed oblique guide hole inclined at a constant angle" is not clearly described in the specification, the "closed oblique guide hole inclined at a constant angle" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction G is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

d. The demandee should be granted a patent independently

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is

applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction G according to Claim 5 before the correction.

(2) Regarding the Correction H

a. Regarding the object of the correction

According to the description "arm part with a fixed angle located in the throughhole and not rotated in close-distant direction with respect to the coated cable", Claim 5 after the correction concretely specifies and further limits the shape of an "arm part located in the through-hole" in the invention according to Claim 5 before the correction.

Therefore, the Correction H aims at the restriction of the scope of claims stipulated in Article 134-2(1)(i) of the Patent Act.

b. The Correction H substantially does not enlarge or alter the scope of claims

As is obvious from the above a, the Correction H is to make the matter specifying the invention "arm part located in the through-hole" more conceptually specific to the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable", which does not alter a category, target or object, and does not fall under a correction to substantially enlarge or alter the scope of claims.

Therefore, the Correction H falls under the provisions of Article 126(6) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

c. The Correction H is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application

Although the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable" is not clearly described in the specification, the "arm part with a fixed angle located in the through-hole and not rotated in close-distant direction with respect to the coated cable" is clearly disclosed in FIGS. 7-8, 11-12, and 17-19.

Therefore, the Correction H is a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(5) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

d. The demandee should be granted a patent independently at the time of patent

application

In the case of trial regarding patent invalidation, Claims 1 to 5 before the correction are the subject of the demand for invalidation trial. Thus, independent requirements for patentability stipulated in the Article 126(7) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act are not imposed regarding the Correction H according to Claim 5 before the correction.

(3) Regarding the Correction I

a. Regarding the object of the correction

The Correction I, which is a correction only to conform the description in the specification to the description in Claim 5 after the correction, aims at clarification of an ambiguous statement stipulated in Article 134-2(iii) of the Patent Act.

b. Regarding other requirements for correction

The Correction I, which only conforms the description in the specification to the description in Claim 5 after the correction, is not a correction to substantially enlarge or alter the scope of claims but a correction made within the scope of matters described in the specification, scope of claims or drawings attached to the application, and falls under the provisions of Article 126(6) and (5) of the Patent Act which are applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act, as with the above (1) and (2).

c. Description about the claims relating to the correction of the specification

The Correction I is made for Claim 5.

Thus, the Correction I falls under the provisions of Article 126(4) of the Patent Act which is applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act.

3 Closing

The Corrections 1, 2, 4, 5, 7 and 8 of the above Corrections aim at the matters stipulated in the proviso (i) to provisions of Article 134-2(1) of the Patent Act, and fall under the provisions of Article 126(5) and (6) of the Patent Act which are applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act. Therefore, the corrections regarding Claims [1-3], 4, 5 after the correction are approved.

The Corrections 3, 6 and 9 of the above Corrections aim at the matters stipulated in the provisions of proviso (iii) to Article 134-2(1) of the Patent Act, and falls under the provisions of Article 126(4), (5) and (6) of the Patent Act which are applied mutatis mutandis in the provisions of Article 134-2(9) of the Patent Act. Therefore, the corrections regarding the specification after the correction are approved.

No. 3 Corrected invention of the case

According to the above No. 2, the inventions according to claims 1 to 5 of the Patent No. 5699121 (hereinafter referred to as "the Corrected invention 1" to "the Corrected invention 5") are acknowledged as follows.

"[Claim 1]

A coat removing device for a coated cable configured to cut the coat of a coated cable formed by coating a periphery of a core material, into round slices with a plurality of rotating blades, move the coats cut from the coated cable in a longitudinal direction of the coated cable, and expose the core material, comprising:

a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable;

a rotating blade part comprising a plurality of blades arranged at equal intervals on the same plane in the direction orthogonal to the longitudinal direction of the coated cable, sliding toward the center of the coated cable and rotating on the same plane to cut the coat into round slices, an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through;

a blade part linear-motion mechanism for linearly moving the doughnut part in a direction parallel to the longitudinal direction of the coated cable; and

a stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the blades,

wherein the coat removing device for a coated cable is configured to fix the coated cable after bringing the end of the coated cable into contact with the stopper,

digitally control the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide the blades along the slide groove toward the center of the coated cable by linearly moving the doughnut part forward, which is a direction of the rotating body, by digital control by the blade part linear-motion mechanism, to be arbitrarily sized by the linear motion,

cut the coat of the coated cable with the blades into round slices by rotating the blade rotating mechanism, and

retreat the blade rotating mechanism and rotating blades toward the opposite direction of the linear motion so as to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable, to expose the core material of the coated cable.

[Claim 2]

The coat removing device for a coated cable described in Claim 1, characterized by including three or four blades, and notching one end or both ends of the cutting edges of the blades.

[Claim 3]

The coat removing device for a coated cable described in Claim 1, characterized in that the blades are configured so that two pairs of plate blades, each of which has an inclined surface toward a cutting edge formed on one surface, and having cutting edges facing each other across the coated cable, wherein different pairs of plate blades are arranged at positions rotated at 90 degrees where flat surfaces of the other pairs face each other and slidably held by the slide groove.

[Claim 4]

A coat removing method for a coated cable of:

after fixing a coated cable, rotating and sliding a plurality of blades arranged at equal intervals on the same plane orthogonal to the longitudinal direction of the coated cable;

toward the center of the coated cable by linear motion by digital control in a direction parallel to the longitudinal direction of the coated cable;

cutting the coat of the coated cable by rotation of the blades into round slices;

retreating the blades toward the opposite direction of the linear motion,

to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable; and

exposing a core material of the coated cable,

characterized by digitally controlling the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide by rotation of the blade rotating mechanism and the rotating blade part and linear motion of the rotating blade part,

by a coat removing device for a coated cable comprising

a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of

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the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable, and

a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through. [Claim 5]

A coat removing device for a coated cable configured to, after fixing a coated cable, rotate and slide a plurality of blades arranged at equal intervals on the same plane orthogonal to the longitudinal direction of the coated cable toward the center of the coated cable by linear motion by digital control in a direction parallel to the longitudinal direction of the coated cable, cut the coat of the coated cable by rotation of the blades into round slices, retreat the blades toward the opposite direction of the linear motion, to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable, and

expose a core material of the coated cable,

and including a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable,

the coat removing device for a coated cable characterized by sliding by rotation and linear motion of a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through, and digitally controlling the diameters of inscribed circles formed with the cutting edges of the rotating blades to be arbitrarily sized by the linear motion."

No. 4 Demandant's allegation

1 In response, the demandant demanded the decision, "1 The patent for the inventions described in Claims 1 to 5 of the scope of claims of Patent No. 5699121 shall be invalidated.

2 The costs in connection with the trial shall be borne by the demandee", and submitted, as means of proof, the following Evidences A No. 1 to No. 9 (Including their brunch numbers. The same applies hereafter.) attached to the written demand for trial, and the following Evidences A No. 10 to No. 12 attached to the written reply as of December 4, 2018.

The Evidence A No. 8 submitted at the same time as the oral proceedings statement brief as of September 28, 2018 was regarded as a reference material in the oral proceeding.

. Evidence A No. 1: OKAWA SANKI INDUSTRIAL Co., Ltd. "Rotary terminal stripper Wire skin machine KIND2-80 design drawing"

- . Evidence A No. 2-1: E-mail "Clamp, arm conceptual drawing" (title)
- . Evidence A No. 2-2: E-mail "KIND2-80 Clamp conceptual drawing" (title)
- . Evidence A No. 2-3: E-mail "KIND2-80 Clamp conceptual drawing II" (title)
- . Evidence A No. 2-4: E-mail "KIND2-80 Clamp conceptual drawing III" (title)
- . Evidence A No. 2-5: E-mail "KIND2-80 Drawing" (title)
- . Evidence A No. 2-6: E-mail "KIND2-80 Drawing" (title)
- . Evidence A No. 2-7: E-mail "KIND2-80 Drawing" (title)
- . Evidence A No. 2-8: E-mail "KIND2-80 Abutting unit modification concept" (title)
- . Evidence A No. 2-9: E-mail "KIND2-80 ABCDE production drawing" (title)
- . Evidence A No. 2-10: E-mail "KIND2-80C, D, E production drawing" (title)
- . Evidence A No. 2-11: E-mail "KIND2-80 November modification" (title)
- . Evidence A No. 3: "Magazine of Electrical Construction Engineering" June 2011 issue, special program
- . Evidence A No. 4-1: E-mail "About follow of Electrical construction fair" (title)
- . Evidence A No. 4-2: Catalogue request list (WAGO Company of Japan, Ltd)
- . Evidence A No. 4-3: Catalogue request list (Tajima Komuten Co.)

. Evidence A No. 4-4: Catalogue request list (NISSINN DENKO CORPORATE. CO., LTD.)

- . Evidence A No. 4-5: Catalogue request list (Tsuda Special Electronics Co., Ltd.)
- . Evidence A No. 4-6: Catalogue request list (NISSIN ELECTRIC Co., Ltd.)
- . Evidence A No. 4-7: Catalogue request list (TOKYU TECHNO SYSTEM Co., Ltd.)
- . Evidence A No. 4-8: Catalogue request list (JA Kumamoto Kajitsuren)

- . Evidence A No. 4-9: Catalogue request list (Tyco Electronics Japan G.K.)
- . Evidence A No. 4-10: Catalogue request list (TJM DESIGN CORP. (Tajima group))
- . Evidence A No. 4-11: Catalogue request list (e-den inc.)
- . Evidence A No. 4-12: Catalogue request list (AIKO CORPORATION)
- . Evidence A No. 4-13: Catalogue request list (Soden technos Co., Ltd.)
- . Evidence A No. 4-14: Catalogue request list (Nanaboshi Electric Mfg. Co., Ltd.)
- . Evidence A No. 4-15: Catalogue request list (SEIKO ELECTRIC CO., LTD.)
- . Evidence A No. 4-16: Catalogue request list (ORIENTAL MOTOR CO., LTD.)
- . Evidence A No. 4-17: Catalogue request list (Rent Corporation.)
- . Evidence A No. 4-18: Catalogue request list (Churitsu Electric Corporation)
- . Evidence A No. 4-19: Catalogue request list (Hino denki kogyo Co., Ltd.)
- . Evidence A No. 4-20: Catalogue request list (YUTAKA ELECTRONICS INDUSTRY

Co., LTD.)

- . Evidence A No. 4-21: Catalogue request list (East Japan Railway Company)
- . Evidence A No. 4-22: Catalogue request list (Kyowa Exeo Corporation.)
- . Evidence A No. 4-23: Catalogue request list (Panasonic Electric Works Co., Ltd.)
- . Evidence A No. 4-24: Catalogue request list (Mahina, Inc.)
- . Evidence A No. 5-1: Order form
- . Evidence A No. 5-2: Order form
- . Evidence A No. 5-3: Order form
- . Evidence A No. 5-4: Order form
- . Evidence A No. 5-5: Order form
- . Evidence A No. 5-6: Order form
- . Evidence A No. 5-7: Equipment shipping slip and invoice (original)
- . Evidence A No. 5-8: Order form
- . Evidence A No. 5-9: Copy of a shipping slip
- . Evidence A No. 5-10: Copy of a shipping slip
- . Evidence A No. 5-11: Invoice (A)
- . Evidence A No. 5-12: Copy of a shipping slip
- . Evidence A No. 5-13: Copy of a shipping slip
- . Evidence A No. 5-14: Copy of a shipping slip
- . Evidence A No. 5-15: Copy of a shipping slip
- . Evidence A No. 5-16: Copy of a shipping slip
- . Evidence A No. 5-17: Copy of a shipping slip
- . Evidence A No. 5-18: Copy of a shipping slip
- . Evidence A No. 6: Instruction manual Wire skin machine KIND2-80 series

. Evidence A No. 7-1: Print-out of the website

"https://www.youtube.com/watch?v=5v68PuN-vhY" which introduces "Rotary stripper KIND2-80"

. Evidence A No. 7-2: Print-out of the website

"https://www.youtube.com/watch?v=9IM9wVs4SQ4" which introduces "Rotary stripper KIND2-81"

. Evidence A No. 7-3: Print-out of the website

"https://www.youtube.com/watch?v=JQTx5gc6j1g" which introduces "2PNCR electric wire work test"

. Evidence A No. 8-1: Skinning blade assembly diagram of the design drawing of "Wire skin KIND2-80" manufactured by OKAWA SANKI INDUSTRIAL

. Evidence A No. 8-2: Abutting unit assembly diagram of the design drawing of "Wire skin KIND2-80" manufactured by OKAWA SANKI INDUSTRIAL

. Evidence A No. 9-1: Video data "KIND2-80.m4v" entitled "Rotary stripper KIND2-80"

. Evidence A No. 9-2: Video data "KIND2-81AIFF.m4v" entitled "Rotary stripper KIND2-81"

. Evidence A No. 10: Japanese Unexamined Patent Application Publication No. 2000-152451

. Evidence A No. 11: Toshimitsu TSUMURA, Yoshio TOKUMARU (1973), Machine design 1, Zitsumu Shuppan Co., Ltd., pp.26-29

. Evidence A No. 12: "HENRY T.BROWN(1896)FIVE HUNDRED AND SEVEN MECHANICAL MOVEMENTS.BROWN & SEWARD. pp.64-65."

The demandee acknowledges the establishment of Evidences A No. 1 to No. 6, No. 7-1, No. 7-2, No. 7-3, No. 8-1, No. 8-2, No. 9-1, and No. 9-2.

2 The demandant's allegations, regarding the reasons for invalidation, in the written demand for trial, the written refutation of the trial case, the oral proceeding, the written statement, and the written reply may be summarized as follows.

(1) Outline of the Reasons for invalidation 2 (Article 123(1)(vi) of the Patent Act)

As described in Evidence A No. 3, the Corrected inventions 1 to 5 were filed by the demandee who saw the Invention A-1 displayed in the booth of NICHIFU Co., Ltd. in "JECA Fair 2011" held from May 25 to May 27 in 2011, which is before the filing of the application of the Corrected invention 1, and they were not invented by the

demandee. The demandee has no right to obtain a patent.

The Patent was granted to a patent application of the demandee who has no right to obtain a patent, falls under the provisions of Article 123(1)(vi) of the Patent Act. The Patent should be invalidated.

(2) Outline of the Reasons for invalidation 3 (Article 29(2) of the Patent Act)

According to the following A to D, the inventions according to Claims 1 to 5 of the Patent are inventions which could have been easily made by a person skilled in the art based on the invention described in Evidence A No. 1 which was publicly known, publicly worked, and made available to public through an electric telecommunication line in Japan prior to the filing of the patent application. The demandee should not be granted a patent under the provisions of Article 29(2) of the Patent Act.

Therefore, the inventions relating to the Corrected inventions 1 to 5 should be invalidated under the provisions of Article 123(1)(ii) of the Patent Act.

A According to Evidences A No. 3 and No. 4-1 to No. 4-24, when KIND2-80 was displayed in the booth of NICHIFU Co., Ltd. in "JECA Fair 2011", the invention relating to a device having a structure described in Evidence A No. 1 has become an invention publicly known (an invention stipulated in Article 29(1)(i)).

B According to Evidences A No. 5-1 to No. 5-18 and Evidence A No. 6, when the Wire skin machine KIND2-80 was sold (delivered) to companies described in the order forms, the invention relating to a device having a structure described in Evidence A No. 1 has become an invention publicly worked (an invention stipulated in Article 29(1)(ii)).

C According to Evidences A No. 7-1 to No. 7-3 and Evidences A No. 9-1 and No. 9-2, when the video describing the operation of KIND2-80 was uploaded to the Internet, the invention relating to a device having a structure described in Evidence A No. 1 has become an invention described in the publication distributed or an invention available to the public through an electric telecommunication line (an invention stipulated in Article 29(1)(iii)).

D Although there are some slight differences between the Corrected inventions 1 to 5 and the Invention A-1, the Corrected inventions 1 to 5 could have been easily made by a person ordinarily skilled in the art of the inventions based on the Invention A-1.

The allegation regarding the Reasons for invalidation 1 (Article 29(1) of the Patent Act) was withdrawn in the oral proceeding on October 12, 2018.

No. 5 Demandee's allegation

The demandee demands, according to the written reply of the trial case as of May 1, 2018, the decision, "(1) The demand for the invalidation trial of the case was groundless. (2) The costs in connection with the trial shall be borne by the demandant". The demandee alleges that the reasons for invalidation alleged by the demandant are groundless for the inventions according to Claims 1 to 5 after the correction.

The demandee submitted Evidence B No. 1 attached to the written reply of the trial case as of May 1, 2018, as means of proof. The Evidence B No. 1 was withdrawn in the oral proceeding.

The demandee submitted the following Evidence B No. 1 and Evidence B No. 2 attached to the written reply as of January 21, 2019, as means of proof, to allege further effects of the Patent invention.

However, the effect to be alleged by the demandee based on Evidence B No. 1 and No. 2, "In the Patent invention (after the correction), since the arm part 22 with a fixed angle and hole 21a in the doughnut part 21 are employed, which has sufficient extended space, options may be employed", is not described in the Patent specification. Evidence B No. 1 was published on October 7, 2015 (application filing date: February 18, 2015), and Evidence B No. 2 was published on June 1, 2015 (application filing date: February 10, 2015). Both dates are after the application filing date of the Patent, December 21, 2012. Thus, it is obvious that Evidence B No. 1 and No. 2 cannot be grounds for approving an inventive step, for the Invention A-1, of the Patent invention.

Therefore, since the necessity to examine Evidences B No. 1 and No. 2 is not recognized, Evidences B No. 1 and No. 2 are not examined under the provisions of Article 181(1) of the Code of Civil Procedure which is applied mutatis mutandis in the provisions of Article 151 of the Patent Act.

. Evidence B No. 1: Japanese Patent No. 5791137

. Evidence B No. 2: Design Registration No. 1524997

No. 6 Regarding the reasons for invalidation

1 Regarding the Evidences A

(1) Described matters in Evidence A No. 1

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A Evidence A No. 1, which is a copy of a document created before the filing of the application relating to the Patent, is a copy of "Rotary terminal stripper Wire skin machine KIND2-80 design drawing". The following matters are described.

(A) In Evidence A No. 1 p. 1, there are "Rotary terminal stripper", "Wire skin machine KIND2-80 design drawing", "June 2010 - October 2010", and "OKAWA SANKI INDUSTRIAL Co., Ltd.". "Sato" is indicated in the field "Drawing". "Okawa" is indicated in the field "Check". "OKAWA SANKI November 8, 2010 Okawa" is indicated in the field "Approval".

(B) In Evidence A No. 1 p. 5, the figure number "80-Y01" illustrates the following "Skinning blade assembly diagram".



ステッピングモータ 戻しバネユニット スプリングピン stepping motor pull-back spring unit spring pin

セット長	set length
バネ定数	spring constant
剥刃組立図	skinning blade assembly diagram
2010年10月	October 2010
大川三基株式会社	OKAWA SANKI INDUSTRIAL Co., Ltd.

According to the description in other pages of Evidence A No. 1 and common general technical knowledge, the following matters can be found from the above "skinning blade assembly diagram".

(i) The "skinning blade assembly diagram" is an explanatory diagram of a mechanism which cuts the coat into round slices by rotary cutting blades from a terminal of a coated cable formed by coating a periphery of a wire, or a core material, in the "Wire skin machine", which is the "Rotary terminal stripper", and removing the coat cut from the coated cable to expose the core material.

(ii) In the "skinning blade assembly diagram", the "cutting blade flange" indicated by the symbol 36 is a rotating body having a hole formed in the center.

(iii) In the "skinning blade assembly diagram", the "slide base" indicated by the symbol 44 includes a slide groove for holding the "cutting blades" indicated by the symbol 46 so as to be slidable in a direction orthogonal to the longitudinal direction of the coated cable.

(iv) The "slide base" connected to the "cutting blade flange" constitutes a mechanism for rotating the "cutting blades".

(v) In the "skinning blade assembly diagram", there are four "cutting blades" indicated by the symbol 46, which are formed by two pairs of plate blades, each of which has an inclined surface toward a cutting edge formed on one surface, and having cutting edges facing each other across the coated cable. Different pairs of plate blades are arranged at positions rotated at 90 degrees where flat surfaces of the other pairs face each other and held slidably by the slide groove of the "slide base". The blades slide toward the center of the coated cable and rotate on the same plane, to cut the coat into round slices.

(vi) In the "skinning blade assembly diagram", the "roller metal fitting B" indicated by

the symbol 42 slidably locks an end of the cutting blade, and engages with a U-shaped guide having an open end formed in one end of the "cutting arm" indicated by the symbol 40.

(vii) The "cutting blades", the "roller metal fitting B", and the "cutting arm" constitute a rotating blade part.

(viii) In the "skinning blade assembly diagram", the "press ring B" indicated by the symbol 35, which linearly moves in a direction parallel to the longitudinal direction of the coated cable, presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an open-radial direction, and rotates the free end in a close-radial direction around the other end of the "cutting arm", to slide the "cutting blades" in a direction orthogonal to the longitudinal direction of the coated cable.

(ix) In the "skinning blade assembly diagram", the "press ring B" is linearly moved in a direction parallel to the longitudinal direction of the coated cable by driving the "stepping motor", and a distance to slide the "cutting blades" in the direction orthogonal to the longitudinal direction of the coated cable is adjusted by the change in the amount of rotation of the "cutting arm" which rotates in accordance with a distance of the linear motion of the "press ring B", to control the diameters of inscribed circles formed with the cutting edges of the "cutting blades" to be arbitrarily sized.

(C) In Evidence A No. 1 p. 60, the figure number "80-Y02" illustrates the following "abutting unit assembly diagram".



abutting unit assembly diagram October 2010

大川三基株式会社 OKAWA SANKI INDUSTRIAL Co., Ltd.

According to the description in other pages of Evidence A No. 1 and common general technical knowledge, the following matters can be found from the above "abutting unit assembly diagram".

(i) The "abutting unit assembly diagram" is an explanatory diagram of an abutting unit in the "Wire skin machine", which is the "Rotary terminal stripper".

(ii) In the "abutting unit assembly diagram", the "abutting metal fitting" indicated by the symbol 1 is a stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the blades.

(D) In Evidence A No. 1 p. 74, the figure number "80-Y03" illustrates the "clamp assembly diagram". A mechanism for fixing the coated cable can be found from the diagram.

B Therefore, from the "skinning blade assembly diagram", the "abutting unit assembly diagram", the "clamp assembly diagram", descriptions of other drawings of Evidence A No. 1, and the answer in the written reply submitted by the demandant on July 7, 2018, in light of common general technical knowledge, it is acknowledged that the following invention (hereinafter referred to as "Invention A-1") is described in Evidence A No. 1.

<Invention A-1>

A "wire skin machine", or a "rotary terminal stripper", configured to cut the coat into round slices by rotary cutting blades from a terminal of a coated cable formed by coating a periphery of a wire, or a core material, and removing the coat cut from the coated cable to expose the core material, comprising:

a mechanism for rotating the "cutting blades" including a "cutting blade flange" which is a rotating body having a hole formed in the center and a "slide base" connected to the "cutting blade flange", the "slide base" including a slide groove for slidably holding the "cutting blades" in a direction orthogonal to a longitudinal direction of the coated cable;

a mechanism, which is a rotating blade part, including four "cutting blades" which are formed by two pairs of plate blades, each of which has an inclined surface

toward a cutting edge formed on one surface, and having cutting edges facing each other across the coated cable, wherein different pairs of plate blades are arranged at positions rotated at 90 degrees where flat surfaces of the other pairs face each other and held slidably by the slide groove of the "slide base", the "cutting blades" sliding toward the center of the coated cable and rotate on the same plane, to cut the coat into round slices, a "cutting arm" having a U-shaped guide having an open end formed in one end, and a "roller metal fitting B" for slidably locking the end of the "cutting blade" and engaging with the U-shaped guide having an open end formed in one end of the "cutting arm",

a mechanism including a "press ring B" which presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an open-radial direction, and rotates the free end in a close-radial direction around the other end of the "cutting arm", and linearly moves in a direction parallel to the longitudinal direction of the coated cable,

an "abutting metal fitting", which is a stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the "cutting blades", and

a "clamp" for fixing the coated cable,

wherein the "rotary terminal stripper" is configured so that the "press ring B" is linearly moved in a direction parallel to the longitudinal direction of the coated cable by driving the "stepping motor", and a distance to slide the "cutting blades" in the direction orthogonal to the longitudinal direction of the coated cable is adjusted by the change in the amount of rotation of the "cutting arm" which rotates in accordance with a distance of the linear motion of the "press ring B", to control the diameters of inscribed circles formed with the cutting edges of the "cutting blades" to be arbitrarily sized.

(2) Described matters in Evidence A No. 10

A Evidence A No. 10, which is a publication distributed before the filing date of the application relating to the Patent (hereinafter referred to as "the filing date of the Patent"), describes the following matters. (The underlines were added by the body. The same shall apply hereinafter.)

"[0009]

[Embodiments of the invention] Examples of the embodiments of the Invention are described below with figures. FIGS. 1 and 2 illustrate one embodiment of an electric wire stripper relating to the Invention. <u>The electric wire stripper 1 includes a pair of cutter bases 4, 5 having cam holes (cam parts) 2, 3, a shaft member 7 having a pin-like</u>

moving element 6 joined to the cam holes 2, 3, an electric wire positioning plate (electric wire positioning part) 8 fixed to the shaft member 7, and a ball threaded shaft 9 (threaded shaft) which moves the shaft member 7 forward and backward.

[0010] <u>As shown in FIG. 3, the cam holes 2, 3 comprise common straight parts 2a, 3a</u> extended in an axial direction of the electric wire, and inclined parts 2b, 3b inclined (curved) outward (in a radial direction of the electric wire) from the straight parts 2a, 3a. The length of the straight parts 2a, 3a is set sufficiently larger than an outer diameter of the moving element 6. The straight parts 2a, 3a of the cam holes 2, 3 pass through with vertical alignment without displacement. The inclined parts 2b, 3b are formed laterally symmetrical.

[0011] The pair of cutter bases 4, 5 formed in a plate shape are superposed (the upper is the cutter base 5, and the lower is the cutter base 4), and can slide laterally (in a radial direction of the electric wire). In FIG. 1, when stripping cutters 10, 11 are fully opened, the pair of cutter bases 4 ,5 are positioned with lateral shifts, and vertically aligned when fully closed. At both ends of the cutter bases 4, 5, semi-circular grooves 121, 122, 131, 132 are formed. Stopper pins 16, 17 which engages with the grooves 121, 122, 131, 132 are fixed to one of upper and lower support substrates 14, 15 (FIG. 2) of the cutter bases 4, 5.

[0012] <u>The stripping cutters 10, 11 are fixed to front ends of the cutter bases 4, 5 via holders 18, 19</u>. As shown in FIG. 3, the holder 19 of the upper cutter base 5 is arranged closer to the bottom, and the holder 18 of the lower cutter base 4 is arranged closer to the top. The holders 18, 19 face each other laterally. The cutter bases 4, 5 and the holders 18, 19 have the same shape, and they are inverted. An electric wire (not shown) is set between the pair of stripping cutters 10, 11.

[0013] <u>A pair of electric wire clamps 20, 21 are arranged forward of the stripping cutters 10, 11</u>. The pair of electric wire clamps 20, 21 are fixed to a pair of clamp bases (not shown). Each of the clamp bases includes a lack which is engaged with a pinion. One of the clamp bases is connected to a rod part 23 of a pressure cylinder 22. The stripping cutters 10, 11 are opened/closed laterally by driving the pressure cylinder 22. Alternatively, the cutters may be opened/closed by a ball threaded shaft (not shown) with reverse threads via a belt (not shown) on a pulley (substituted by 23) of a motor (substituted by 22).

[0014] The pair of cutter bases 4, 5 are held between the pair of upper and lower support substrates 14, 15 (FIG. 2). Positioning protrusions 24, 25 (FIG. 2) are arranged facing each other at front and rear ends of the support substrates 14, 15. The cutter bases 4, 5 can slide in cutter-open/close direction along the protrusions 24, 25. The support substrates 14, 15 are fixed to a rear annular member 26.

[0015] The moving element 6 is fixed to the shaft member 7 through the cam holes 2, 3. As shown in FIG. 4, the moving element 6 is formed of a center pin 6a and a bearing 6b arranged at the center in a longitudinal direction of the pin 6a. A tip of the shaft member 7 is cut in substantially a U-shape. Upper and lower ends of the pin 6a are supported by a hole 55 of upper and lower walls 53, 54. The bearing 6b is positioned in a rectangular notch 52 between the walls 53, 54. The bearing 6b is rotatably engaged with the cam holes 2, 3 of the cutter bases 4, 5 (FIG. 3).

[0016] In this example, the shaft member 7 is formed in substantially a rectangular shape. As shown in FIG. 2, the electric wire positioning plate 8 is vertically fixed at the front end of the shaft member 7. The electric wire positioning plate 8 is formed in a rectangular shape, and slide bars 28, 29 in an axial direction of the electric wire are fixed to both upper and lower ends of the electric wire positioning plate 8. A tip of an electric wire is positioned in contact with the electric wire positioning plate 8. Cylindrical guides 30, 31 for the slide bars 28, 29 are arranged in the upper and lower support substrates 14, 15. The electric wire positioning plate 8 can move forward/backward in the axial direction of the electric wire together with the shaft member 7.

[0017] As shown in FIG. 4, a claw shank 32 is arranged at a rear end of the shaft member 7. The shank 32 engages with a peripheral groove 33 formed at a front end of the ball threaded shaft 9 (FIG. 1, FIG. 2). The head of the front end of the ball threaded shaft 9 is rotatably supported in a groove 56 inside the shank 32 via a bearing (not shown), for example. The shank 32 does not rotate. Only the ball threaded shaft 9 rotates. The ball threaded shaft 9 is engaged with a nut 34 (FIG. 1, FIG. 2), or a female screw member, and rotatably supported by a bearing 35. For example, the nut 34 and the bearing 35 (FIG. 2) are rotatably connected in a case 36. A large-diameter gear 37 is fixed to the nut 34. A gear 37 is engaged with a pinion gear 39 of a servo motor 38. The case 36 is fixed to a base plate 40.

[0018] The ball threaded shaft 9 is rotatably supported on the base plate 40 by a support tool 42 in an axially middle part. The base plate 40 is slidably engaged with a rail 43 in the axial direction of the electric wire via a slide guide 44. A rod 46 of a cylinder 45 is connected to a rear end of the base plate 40.

[0019] By driving (forward or backward) the servo motor 38, the nut 34 is rotated via the gears 39, 37, and the ball threaded shaft 9 is moved axially. The shaft member 7 is pulled to move backward, or pushed to move forward. When the shaft member 7 is moved backward, the pin-like moving element 6 moves backward axially together, and

moves from the straight parts 2a, 3a of the cam holes 2, 3 along the inclined parts 2b, 3b. The cam holes 2, 3 become inverted truncated chevron shape. Accordingly, the pair of cutter bases 4, 5 moves together with the stripping cutters 10, 11 in a close direction, to cut into an insulating coat of an electric wire. By compressing the cylinder 45 to move the rod 46 backward, the base plate 40 moves backward together with the stripping cutters 10, 11, and the insulating coat of the electric wire is separated from a conductor part.

[0020] By inversely rotating the servo motor 38 to move the shaft member 7 forward, the cam holes 2, 3 move from the inverted truncated chevron shape to a truncated chevron shape in FIG. 1, along the moving element 6, and the stripping cutters 10, 11 open together with the cutter bases 4, 5. A depth of cut formed by the stripping cutters 10, 11 is determined according to the position where the moving element 6 is stopped in the inclined parts 2b, 3b of the cam grooves 2, 3. This adjustment is performed in position setting in forward/backward direction of the shaft member 7.

[0021] When the moving element 6 moves within the straight parts 2a, 3a of the cam holes 2, 3, the pair of cutter bases 4, 5 do not move in the close direction. Thus, the stripping cutters 10, 11 do not open or close at all. The straight parts 2a, 3a, which define the position of the electric wire positioning plate 8 at the tip of the shaft member 7 in the electric wire direction, can change the location of the electric wire positioning plate 8 as desired by positioning the moving element 6 in an arbitrary location within a range of the length of the straight parts 2a, 3a. The location of the moving element 6 is determined by the ball threaded shaft 9 moving the shaft member 7 forward/backward, of course.

[0022] <u>Accordingly, stripping length of the electric wire is arbitrarily set, and various</u> types of electric wire can be stripped. The cutter bases 4, 5 are made compact by employing the cam holes 2, 3 and the moving element 6, and a conventional large-scale mechanism (FIG. 3, FIG. 4), such as a ball threaded shaft for driving a stripping cutter is not required. A tip of the shaft member 7 can be used as a substitute for the electric wire positioning plate 8.

[0023] The above configuration is also effective as an electric wire stripping method. The electric wire stripping method includes engaging a moving element 6 to cam holes 2, 3 of a pair of cutter bases 4, 5, moving the moving element 6 forward/backward in an axial direction of an electric wire, and opening/closing stripping cutters 10, 11 together with the pair of cutter bases 4, 5. The method is characterized by adjusting a location of an electric wire positioning plate 8 together with the moving element 6 by defining a location of the moving element 6 within a range of straight parts 2a, 3a in the axial

direction of the electric wire of the cam holes 2, 3, and bring a tip of the electric wire into contact with the electric wire positioning plate 8.

[0024] A large-diameter bearing 47 is fixed at a front end of the base plate 40. An annular member 26 is rotatably supported on the bearing 47. The annular member 26 is connected to a pair of support substrates 14, 15. A large-diameter gear 48 is fixed at a rear end of the annular member 26. The gear 48 meshes with a pinion gear 50 on the side of a servo motor 49 (FIG. 1). By driving the servo motor 49, the support substrates 14, 15 is rotated together with the stripping cutters 10, 11 via the gears 50, 48 and the annular member 26, to completely cut an insulating coat of an electric wire in a peripheral direction.

[0025] The stripping cutters 10, 11 are rotated together with the cutter bases 4, 5, the support substrates 14, 15, the shaft member 7, and the annular member 26. The shaft member 7 can be rotated separately from the ball threaded shaft 9 by the shank 32. Since the servo motor or the ball threaded shaft is not rotated together with the stripping cutters, the electric wire stripper 1 can be made compact and no measure is required against impact in a servo part (NC part), resulting in low cost.

[0026]

[Advantage of the Invention] As described above, the invention described in Claim 1 moves a pair of cutter bases along cam holes in an open/close direction of stripping cutters with respect to a moving element, thereby simplifying and reducing the size and weight of a driving mechanism in the open/close direction of the stripping cutters. A conventional large-scale mechanism for directly driving cutter bases with a threaded shaft and a servo motor is not required. According to the invention described in Claims 2, 5, by moving a moving element along straight parts of cam holes, a location of a stripping cutter in an open/close direction can be constantly defined regardless of forward/backward motion of the shaft member. According to the invention described in Claim 3, a location of an electric wire positioning part can be freely defined within a range of a length of straight parts of the cam holes in Claim 2, various types of electric wire can be stripped easily, and stripping length can be accurately adjusted. A more simple and low-cost mechanism for adjusting stripping length is implemented as compared with a conventional large-scale NC mechanism. According to the invention described in Claim 4, only cutter bases and a shaft member rotate when an insulating coat of an electric wire is cut in a peripheral direction, and there is no need to rotate a heavy weight, such as cutter bases, a threaded shaft, and a servo motor (NC part). Thus, cutting speed is increased, durability of an electric wire stripper is increased, and high rigidity (strength) of the device is not required, thereby implementing a compact,

light-weight, and low-cost electric wire stripper."

"



【図4】



【図1】	[FIG. 1]
カム孔	cam hole
真直部	straight part
カッタベース	cutter base
移動子	moving element
軸部材	shaft member
電線位置決め板	electric wire positioning plate
ボールねじ軸	ball threaded shaft

【図2】	[FIG. 2]	
【図3】	[FIG. 3]	
【図4】	[FIG. 4]	

"

B According to the above descriptions, it is acknowledged that the following technical matters are described in Evidence A No. 10.

(A) An electric wire stripper comprising a pair of cutter bases 4, 5 having cam holes (cam parts) 2, 3, a shaft member having a pin-like moving element joined to the cam holes 2, 3, an electric wire positioning plate (electric wire positioning part) fixed to the shaft member, and a ball threaded shaft (threaded shaft) which moves the shaft member forward and backward,

wherein the cam holes 2, 3 comprise common straight parts extended in an axial direction of an electric wire, and inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts,

the pair of cutter bases 4, 5 formed in a plate shape are superposed, and can slide laterally (in a radial direction of the electric wire), the pair of cutter bases 4, 5 are held between the pair of upper and lower support substrates fixed to a rear annular member, the cutter bases 4, 5 can slide in cutter-open/close direction along positioning protrusions arranged facing each other at front and rear ends of the support substrates,

stripping cutters are fixed to front ends of the cutter bases 4, 5 via holders,

a pair of electric wire clamps are arranged forward of the stripping cutters,

the moving element is fixed to the shaft member through the cam holes 2, 3,

the shaft member is pulled to move backward by driving a servo motor, when the shaft member is moved backward, the pin-like moving element moves backward axially together, and moves from the straight parts of the cam holes 2, 3 along the inclined parts, accordingly, the pair of cutter bases 4, 5 moves together with the stripping cutters in a close direction, to cut into an insulating coat of an electric wire, by compressing a cylinder to move a rod backward, a base plate is moved backward together with the stripping cutters, and the insulating coat of the electric wire is separated from a conductor part.

(B) When the moving element moves within the straight parts of the cam holes, which comprise common straight parts extended in an axial direction of an electric wire, and inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts, the pair of cutter bases do not move in the close direction, and the

stripping cutters do not open or close at all, therefore, a position of the electric wire positioning plate fixed to the shaft member having the moving element can be changed as desired by positioning the moving element in an arbitrary location within a range of the length of the straight parts, stripping length of the electric wire is arbitrarily set, accordingly, and various types of electric wire can be stripped, a more simple and lowcost mechanism for adjusting stripping length is implemented as compared with a conventional large-scale NC mechanism.

(C) By employing a mechanism comprising a pair of cutter bases 4, 5 having cam holes (cam parts) 2, 3, and a shaft member having a pin-like moving element joined to the cam holes 2, 3, the shaft member is moved forward/backward to move the pair of cutter bases along the cam holes in an open/close direction of stripping cutters with respect to the pin-like moving element, thereby simplifying and reducing the size and weight of a driving mechanism in the open/close direction of the stripping cutters.

(3) Described matters in Evidence A No. 11

A Evidence A No. 11, which is a publication distributed before the filing of the application relating to the Patent, describes the following matters with drawings.

"Chapter 1 Machine and mechanism 4. Cam device

(Note by the body: continued from the previous page) is an original section, and transmits motion to a follower section which is in direct contact with it. Complicated motion can be obtained with a simple structure. It is employed widely in various manufacturing machines, especially automated machines.

1. Cam type

Cams are grouped broadly into plane cams whose contact part executes plane motion and solid cams which execute steric motion. Some cams have grooves to reliably transmit motion, which are called positive motion cams.

(1) Plane cam

The most general plane cam is a plate cam which uses a rotary plate having a special contour as a cam. FIG. 1-29 illustrates a so-called heart cam configured so that a follower section F performs constant-velocity reciprocal motion when a plate cam C rotates at a constant velocity. In FIG. (a), a tip of F sliding on C transmits motion, and high friction is generated on a contact surface, resulting in wear. In order to reduce the disadvantage, a roller may be arranged at the tip of F as shown in FIG. (b).

(FIG. 1-29: omitted, FIG. 1-30: omitted)

In FIGS. (a) and (b), when rotation speed of C is high, F may depart from C. In

order to prevent it, F is pressed against C with a spring, or, as shown in FIG. (c), groove is formed in a cam, to form a positive motion cam so as to ensure motion of a follower section. FIG. 1-30 illustrates a positive motion cam. FIG. (a) is a yoke cam configured so that parallel two planes of a follower section hold a triangle cam so as not to form a gap with the follower section when the cam rotates.

In FIG. (b), cams C1 and C2 rotates together with spur gears G1, G2 fixed to cam shafts thereof. The cams rotate while holding a roller of the follower section F, and apply angular motion which reciprocates vertically to F.

In most cases, the original section rotates, and the cam C may perform reciprocating linear motion. Such cam is called a translation cam (FIG. 1-31).



直動カム	translation cam
逆カム	inverse cam

In some cases, the follower section C has a special shape. Such cam is called an inverse cam (FIG. 1-32).

(2) Solid cam

A solid cam (FIG. 1-33) is generally formed by arranging groove on a surface of a rotating body, such as a cylinder, a circular cone, or a ball, and allowing a part of a follower part to enter the groove to transmit motion. A cylindrical cam, a conical cam, and a spherical cam are also positive motion cams (FIGS. (a), (b), (c)).

As shown in FIG. (d), an adjustment cam formed by fixing a cam piece onto a cylinder with a bolt is used for machine tools or various automated machines.

An end cam shown in FIG. (e) is also a solid cam, which is formed by cutting an

end surface of a rotating body along a curve of a groove, without arranging a cam groove. (FIG. 1-33: omitted)

As shown in Fig. (f), a swash plate cam is formed by attaching a flat plate obliquely on a rotating shaft. A follower section F performs reciprocating linear motion by rotation of the shaft, and the stroke can be changed by modifying a tilt angle of the flat plate.

2. Design of plate cam

(1) Displacement diagram

In designing a cam, it is necessary to know a position of a follower section in accordance with rotation of the cam. In general, cams rotate at a constant speed. A graph plotting cam rotation angle along the abscissa and motion of follower section along the ordinate shows this relation. This graph is called a cam displacement diagram.

FIG. 1-34 shows relative position of a follower section with respect to one turn of a cam, as a displacement curve Oabc. A distance from O on OX indicates a rotation angle, and a vertical distance from OX bar (Note by the body: lateral bar on OX) indicates motion of a follower section in each cam position.

(FIG. 1-34: omitted, Q4.: omitted)"

B According to the above descriptions, it is acknowledged that Evidence A No. 11 describes the following technical matters.

(A) A cam device having a mechanism in which an original section transmits motion to a follower section directly connected thereto, which provides complicated motion with a simple structure, is widely used in various manufacturing machines, especially automated machines,

the cam is grouped broadly into plane cams whose contact part executes plane motion and solid cams which execute steric motion,

the most general plane cam is a plate cam which uses a rotary plate having a special contour as a cam,

in most cases, a cam has an original section which rotates and a cam which may perform reciprocating linear motion, which is called a translation cam,

a solid cam is generally formed by arranging groove on a surface of a rotating body, such as a cylinder, a circular cone, or a ball, and allowing a part of a follower part to enter the groove to transmit motion.

(B) FIG. 1-31 shows a structure including

a plate cam C, of a translation cam which is a kind of plate cams, held on left and right bearings so as to perform reciprocating linear motion in lateral direction, having a contour with a flat lower end and an upward-sloping upper end, and

a follower section F which is held so as to move vertically by a bearing arranged above the plate cam C, comes into direct contact with the upper end of the plate cam C via a roller arranged at the tip, and moves in a vertical direction of the plate cam C by lateral reciprocating linear motion of the plate cam C.

(4) Described matters in Evidence A No. 12

A Evidence A No. 12, which is a publication distributed before the filing of the application relating to the Patent, describes the following matters with drawings.



"252. A and B are two rollers which require to be equally moved to and fro in the slot, C. This is accomplished by moving the piece, D, with oblique slotted arms, up and down".

B According to the above description, it is acknowledged that the following matters are described in Evidence A No. 12.

A mechanism to be used when required to equally move two rollers A and B to and fro in a slot C,

configured to move the two rollers A and B equally to and fro in the slot C opened to the right, by moving a piece D up and down, with non-rotating oblique slotted arms having closed guide holes inclined at a constant angle, whose tips located at the center and counter tips located outside for slidably locking the two rollers A and B, and the piece D for erecting the arms.

2 Regarding the Reasons for invalidation 3 (Article 29(2) of the Patent Act)

In view of the case, the Reasons for invalidation 3 are examined first.

- (1) Regarding the Corrected invention 1 of the case
- A Corrected invention 1 and Invention A-1

The Corrected invention 1 and the Invention A-1 are compared.

(A) The "cutting blade" in the Invention A-1 corresponds to the "blade" in the Corrected invention 1. In the Invention A-1, when the coat is cut into round slices by rotary cutting blades to remove the cut coat from the coated cable, the cut coat moves in a longitudinal direction of the coated cable to expose a core material.

Thus, the "wire skin machine", or a "rotary terminal stripper", configured to cut the coat into round slices by rotary cutting blades from a terminal of a coated cable formed by coating a periphery of a wire, or a core material, and removing the coat cut from the coated cable to expose the core material" in the Invention A-1 corresponds to "A coat removing device for a coated cable configured to cut the coat of a coated cable formed by coating a periphery of a core material, into round slices with a plurality of rotating blades, move the coats cut from the coated cable in a longitudinal direction of the coated cable, and expose the core material" in the Corrected invention 1.

(B) The "cutting blade flange" and "slide base" in the Invention A-1 correspond to the "rotating body" and "blade slide holding part" in the Corrected invention 1, respectively.

Thus, the "mechanism for rotating the "cutting blades" including a "cutting blade flange" which is a rotating body having a hole formed in the center and a "slide base" connected to the "cutting blade flange", the "slide base" including a slide groove for slidably holding the "cutting blades" in a direction orthogonal to a longitudinal direction of the coated cable" in the Invention A-1 and the "blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable" in the Corrected invention 1, are identical in point of a blade part rotating mechanism comprising a rotating body having a hole formed at the center and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable.

(C) The "cutting arm" in the Invention A-1 and the "arm part" in the Corrected invention 1 are identical in point of an arm part which slidably locks ends of the blades and having a guide.

Thus, the "mechanism, which is a rotating blade part, including four "cutting blades" which are formed by two pairs of plate blades, each of which has an inclined surface toward a cutting edge formed on one surface, and having cutting edges facing each other across the coated cable, wherein different pairs of plate blades are arranged at positions rotated at 90 degrees where flat surfaces of the other pairs face each other and held slidably by the slide groove of the "slide base", the "cutting blades" sliding toward the center of the coated cable and rotate on the same plane, to cut the coat into round slices, a "cutting arm" having a U-shaped guide having an open end formed in one end, and a "roller metal fitting B" for slidably locking the end of the "cutting blade" and engaging with the U-shaped guide having an open end formed in one end of the "cutting arm"" in the Invention A-1 and the "rotating blade part comprising a plurality of blades arranged at equal intervals on the same plane in the direction orthogonal to the longitudinal direction of the coated cable, sliding toward the center of the coated cable and rotating on the same plane to cut the coat into round slices, an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through" in the Corrected invention 1, are identical in point of a rotating blade part comprising a plurality of blades arranged at equal intervals on the same plane in the direction orthogonal to the longitudinal direction of the coated cable, sliding toward the center of the coated cable and rotating on the same plane to cut the coat into round slices, and an arm part for slidably locking ends of the blades and having a guide.

(D) The "mechanism including a "press ring B" which presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an open-radial

direction, and rotates the free end in a close-radial direction around the other end of the "cutting arm", and linearly moves in a direction parallel to the longitudinal direction of the coated cable" in the Invention A-1 and the "blade part linear-motion mechanism for linearly moving the doughnut part in a direction parallel to the longitudinal direction of the coated cable" in the Corrected invention 1, are identical in point of a blade part linear-motion mechanism.

(E) The ""abutting metal fitting", which is a stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the "cutting blades"" in the Invention A-1 corresponds to the "stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the blades" in the Corrected invention 1.

(F) In light of common general technical knowledge, the "clamp" in the Invention A-1 is considered as a device which brings an end of a coated cable into contact with the "abutting metal fitting" to fix the coated cable.

Thus, the Invention A-1 satisfies the description in the Corrected invention 1, "fix the coated cable after bringing the end of the coated cable into contact with the stopper".

(G) In light of common general technical knowledge, driving of "stepping motor" is considered as digital control. Therefore, in the Invention A-1, linearly moving the "press ring B" in a direction parallel to the longitudinal direction of the coated cable, and controlling the diameters of inscribed circles formed with the cutting edges of the "cutting blades" driven by the linear motion to be arbitrarily sized correspond to digital control.

Thus, the description in the Invention A-1, "the "press ring B" is linearly moved in a direction parallel to the longitudinal direction of the coated cable by driving the "stepping motor", and a distance to slide the "cutting blades" in the direction orthogonal to the longitudinal direction of the coated cable is adjusted by the change in the amount of rotation of the "cutting arm" which rotates in accordance with a distance of the linear motion of the "press ring B", to control the diameters of inscribed circles formed with the cutting edges of the "cutting blades" to be arbitrarily sized" and the description in the Corrected invention 1, "digitally control the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide the blades along the slide groove toward the center of the coated cable by linearly moving the doughnut part forward, which is a direction of the rotating body, by digital control by the blade part linear-motion mechanism, to be arbitrarily sized by the linear motion", are identical in point of digitally control the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide the blades along the slide groove toward the center of the coated cable by linearly moving the blade part linear-motion mechanism forward, which is a direction of the rotating body, by digital control to be arbitrarily sized by the linear motion.

(H) Accordingly, the corresponding feature and different feature between the Corrected invention 1 and the Invention A-1 are as follows.

<Corresponding feature>

"A coat removing device for a coated cable configured to cut the coat of a coated cable formed by coating a periphery of a core material, into round slices with a plurality of rotating blades, move the coats cut from the coated cable in a longitudinal direction of the coated cable, and expose the core material including:

a blade part rotating mechanism comprising a rotating body having a hole formed at the center and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable;

a rotating blade part comprising a plurality of blades arranged at equal intervals on the same plane in the direction orthogonal to the longitudinal direction of the coated cable, sliding toward the center of the coated cable and rotating on the same plane to cut the coat into round slices, and a member for slidably locking ends of the blades;

a blade part linear-motion mechanism; and

a stopper which comes into contact with an end of the coated cable to decide cutting positions of the coat by the blades,

wherein the coat removing device for a coated cable is configured to fix the coated cable after bringing the end of the coated cable into contact with the stopper,

digitally control the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide the blades along the slide groove toward the center of the coated cable by linearly moving the blade part linear-motion mechanism forward, which is a direction of the rotating body, by digital control to be arbitrarily sized by the linear motion,

cut the coat of the coated cable with the blades into round slices by rotating the blade rotating mechanism, and

retreat the blade rotating mechanism and rotating blades toward the opposite direction of the linear motion so as to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable, to expose the core material of the coated cable."

<Different feature>

There is the following difference between the Corrected invention 1 and the Invention A-1 in the mechanism for controlling the diameters of inscribed circles formed with the cutting edges of the blades to be arbitrarily sized by linearly moving the blade part linear-motion mechanism to slide the blades along the slide groove toward the center of the coated cable.

In the Corrected invention 1,

the mechanism includes a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable, and a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through,

and the mechanism is configured to control the diameters of inscribed circles formed with the cutting edges of the blades by sliding the blade along the slide groove to the center of the coated cable by linearly moving the doughnut part forward, which is a direction of the rotating body, by digital control by the blade part linear-motion mechanism, to be arbitrarily sized by the linear motion.

In the Invention A-1,

the mechanism includes a mechanism for rotating the "cutting blades" including a "cutting blade flange" which is a rotating body having a hole formed in the center and a "slide base" connected to the "cutting blade flange", the "slide base" including a slide groove for slidably holding the "cutting blades" in a direction orthogonal to a longitudinal direction of the coated cable, and a mechanism, which is a rotating blade part, including a "cutting arm" having a U-shaped guide having an open end formed in one end, and a "roller metal fitting B" for slidably locking the end of the "cutting blade" and engaging with the U-shaped guide having an open end formed in one end of the "cutting arm",

and the mechanism is configured to use a "press ring B" which presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an openradial direction, and rotates the free end in a close-radial direction around the other end of the "cutting arm", to slide the "cutting blades" in a direction orthogonal to the longitudinal direction of the coated cable, thereby controlling the diameters of inscribed circles formed with the cutting edges of the "cutting blades" to be arbitrarily sized.

The above difference is summarized for each member of the Corrected invention 1 and the Invention A-1 below.

In the Corrected invention 1, the rotating body of the blade part rotating mechanism "has a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside", and the rotating blade part has "an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through". "The doughnut part" is specified to be "linearly moved in a direction mechanism".

In the Invention A-1, it is not clear whether a coated cable passes through a hole formed at the center of the rotating body of the blade part rotating mechanism, and the rotating body of the blade part rotating mechanism is not configured to "have throughholes equal to the number of the blades formed outside".

A member for slidably locking the ends of the blades is "roller metal fitting B". The "roller metal fitting B" is engaged with a U-shaped guide of the "cutting arm" having the U-shaped guide having an open end formed in one end. The "press ring B" which linearly moves in a direction parallel to the longitudinal direction of the coated cable presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an open-radial direction and rotates around the other end of the "cutting arm" to slide the ends of the blades.

It is different in that there is no "doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through".

B Judgment on the different feature

(A) Article 29(1) of the Patent Act stipulates that "An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the invention, except for the following", and stipulates "inventions that were publicly known" "in Japan or a foreign country, prior to the filing of the patent application" in the first paragraph, "inventions that were publicly worked" "in Japan or a foreign country, prior to the filing of the patent application" in the first paragraph, "inventions that were publicly worked" "in Japan or a foreign country, prior to the filing of the patent application" in the second paragraph, and "inventions that were described in a distributed publication, or inventions that were made publicly available through an electric telecommunication line" "in Japan or a foreign country, prior to the filing of the patent application" in the third paragraph.

Article 29(2) stipulates that, where, prior to the filing of the patent application, a person skilled in the art would have been able to easily make the invention based on an invention prescribed in any of the items of the preceding paragraph, a patent shall not be granted for such an invention which indicates that a patent shall not be granted for an invention lacking in inventive step.

A judgement as to whether to approve the requirements for the inventive step is made by, after finding the invention ("the Corrected invention 1") relating to the patent application based on the scope of claims, comparing with predetermined inventions in each item of Article 29(1), acknowledging corresponding feature and different feature, and examining whether a person skilled in the art could have easily conceived of employing the configuration relating to the Corrected invention 1, regarding the different feature, based on the technical level at the time of the filing of the application.

(B) Comparing with the Invention A-1, it is acknowledged that the Corrected invention 1 has a different feature as described in the above A (H) <Different feature>.

We will examine whether a person skilled in the art could have easily conceived of employing the configuration relating to the Corrected invention 1, regarding the different feature, based on the technical level at the time of the application.

(C) In examining the technical level at the time of the filing of the application, according to the description in 1. (2), in the technical field "electric wire stripping device",

it can be said that it had been known before the filing of the application that a mechanism including "a pair of cutter bases having cam holes", "which comprise common straight parts extended in an axial direction of the electric wire, and inclined

parts inclined (curved) outward (in a radial direction of the electric wire) from the straight part" and "formed in a plate shape, superposed, and can slide laterally (in a radial direction of the electric wire)", "a shaft member having a pin-like moving element joined to the cam holes", and "a ball threaded shaft (threaded shaft) which moves the shaft member forward and backward" is used for the motion,

"the shaft member is pulled to move backward by driving a servo motor, when the shaft member is moved backward, the pin-like moving element moves backward axially together, and moves from the straight parts of the cam holes along the inclined parts, accordingly, the pair of cutter bases moves together with the stripping cutters in a close direction", or used for changing the direction of the motion from the linear motion of the "shaft member" to the motion of the "stripping cutter" sliding toward the center of the electric wire. (Evidence A No. 10)

(D) According to the description in 1 (3), in a general technical field "machine design",

cam devices, which are grouped broadly into plane cams whose contact part executes plane motion and solid cams which execute steric motion, are used widely in machine tools, particularly automated machines.

The most general plane cam is a plate cam which uses a rotary plate having a special contour as a cam. A translation cam which performs reciprocating linear motion is known.

It can be said that a structure, as the translation cam, had been known before the filing of the application, which comprises a plate cam C held on left and right bearings so as to perform reciprocating linear motion in lateral direction, having a contour with a flat lower end and an upward-sloping upper end, and

a follower section F which is held so as to move vertically by a bearing arranged above the plate cam C, comes into direct contact with the upper end of the plate cam C via a roller arranged at the tip, and moves in a vertical direction of the plate cam C by lateral reciprocating linear motion of the plate cam C. (Evidence A No. 11)

(E) According to the description in 1 (4), in a general technical field "MECHANICAL MOVEMENTS",

it can be said that a mechanism had been known before the filing of the application, which is to be used when required to equally move two rollers A and B to and fro in a slot C,

configured to move the two rollers A and B equally to and fro in the slot C opened to the right, by moving a piece D up and down, with non-rotating oblique slotted

arms having closed guide holes inclined at a constant angle, whose tips located at the center and counter tips located outside for slidably locking the two rollers A and B, and the piece D for erecting the arms. (Evidence A No. 12)

(F) The "inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts" of the "cam holes (cam part)" comprising "common straight parts extended in an axial direction of the electric wire, and inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts" of the "cutter base" in Evidence A No. 10 are considered as "taper". The "contour with an upward-sloping upper end" of the plate cam C in Evidence A No. 11 and the "closed oblique guide holes inclined at a constant angle, whose tips located at the center and counter tips located outside" are also considered as "taper". Thus, according to the descriptions in Evidences A No. 10 to No. 12, it is acknowledged that "a mechanism for changing a direction of motion using taper" had been known before the filing of the application of the patent.

(G) On the assumption that "a mechanism for changing a direction of motion using taper" had been known as a technical level at the time of the filing of the application, we will examine whether a person skilled in the art could have easily conceived of employing the configuration relating to the Corrected invention 1, regarding the above different feature, in the Invention A-1.

(H) The Corrected invention 1, as described in the above A(I) <Different feature>, as a mechanism for controlling the diameters of inscribed circles formed with the cutting edges of the blades to be arbitrarily sized by linearly moving the blade part linear-motion mechanism to slide the blades along the slide groove toward the center of the coated cable, employs a specific structure including

"a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable, and a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through".

On the other hand, as indicated in (F), although it is acknowledged that "a mechanism for changing a direction of motion using taper" had been known before the filing of the application, it cannot be acknowledged that the above specific structure of the Corrected invention 1 had been known before the filing of the application of the patent from the means of proof submitted by the demandant.

Also, to implement the operation to "control the diameters of inscribed circles formed with the cutting edges of the blades to be arbitrarily sized by linearly moving the blade part linear-motion mechanism to slide the blades along the slide groove toward the center of the coated cable" by using the "mechanism for changing a direction of motion using taper", it cannot be acknowledged that only the specific structure of the Corrected invention 1 is means for solving the problem, and the specific structure of the Corrected invention 1 is inevitably employed when the "mechanism for changing a direction of motion using taper" is applied to the Invention A-1.

This is obvious from disclosure, in Evidence A No. 10, of an electric wire stripper which implements the "mechanism for changing a direction of motion using taper" with a structure different from the above specific structure of the Corrected invention 1.

In implementing, in the Invention A-1, the operation to "control the diameters of inscribed circles formed with the cutting edges of the blades to be arbitrarily sized by linearly moving the blade part linear-motion mechanism to slide the blades along the slide groove toward the center of the coated cable" by using the "mechanism for changing a direction of motion using taper", it cannot be acknowledged, by the reasons alleged and the means of proof submitted by the demandant, that a person skilled in the art could have easily employed the specific structure of the Corrected invention 1, or could have easily modified the following structure of the Invention A-1 to the following structure employed in the Corrected invention 1.

In the Invention A-1, it is not obvious whether the rotating body of the blade part rotating mechanism is configured so that a coated cable passes through a hole formed at the center, and the rotating body of the blade part rotating mechanism is not configured to "comprise through-holes equal to the number of the blades formed outside". A member for slidably locking the ends of the blades is "roller metal fitting B". The "roller metal fitting B" is engaged with a U-shaped guide of the "cutting arm" having the U-shaped guide having an open end formed in one end. The "press ring B" which linearly moves in a direction parallel to the longitudinal direction of the coated cable presses a middle area of the "cutting arm" having a free end biased by a pull-back spring unit in an open-radial direction and rotates around the other end of the "cutting arm" to slide the ends of the blades. The Invention A-1 does not include "a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through".

In the Corrected invention 1, the rotating body of the blade part rotating mechanism "includes a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside", and the rotating blade part includes "an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through". The "doughnut part" is configured to "be linearly moved in a direction parallel to a longitudinal direction of the coated cable" by the "blade part linear-motion mechanism".

(I) The Invention A-1 does not show motivation to employ "a mechanism for changing a direction of motion using taper". Even if the presence of motivation to employ "a mechanism for changing a direction of motion using taper" is acknowledged in the Invention A-1 because the "mechanism for changing a direction of motion using taper" had been well-known before the filing of the application based on the descriptions in Evidences A No. 10 to No. 12, it is natural and rational for a person skilled in the art, in employing the "mechanism for changing a direction of motion using taper" in the Invention A-1, to employ the above structure described in Evidence A No. 10, and it cannot be acknowledged that a person skilled in the art could have easily conceived of employing the specific structure of the Corrected invention 1 because, as described in the Evidence A No. 10, in the "electric wire stripper", a structure in which "a pair of cutter bases 4, 5 moves together with the stripping cutters in a close direction, to cut into an insulating coat of an electric wire" using "a mechanism for changing a direction of motion using taper" comprising "a pair of cutter bases 4, 5 having cam holes (cam parts) 2, 3 "including common straight parts extended in an axial direction of the electric wire, and inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts" and a shaft member having a pin-like moving element joined to the cam holes 2, 3", had been known before the filing of the application.

Therefore, Evidence A No. 10 describes, as indicated in 1(2) B (B) and (C), that

an "electric wire stripper" employs the above structure and shows the following effects: "When the moving element moves within the straight parts of the cam holes, which comprise common straight parts extended in an axial direction of an electric wire, and inclined parts inclined (curved) outward (in a radial direction of the electric wire) from the straight parts, the pair of cutter bases do not move in the close direction, and the stripping cutters do not open or close at all, therefore, a position of the electric wire positioning plate fixed to the shaft member having the moving element can be changed as desired by positioning the moving element in an arbitrary location within a range of the length of the straight parts, stripping length of the electric wire is arbitrarily set, accordingly, and various types of electric wire can be stripped, a more simple and lowcost mechanism for adjusting stripping length is implemented as compared with a conventional large-scale NC mechanism", and "By employing a mechanism comprising a pair of cutter bases 4, 5 having cam holes (cam parts) 2, 3, and a shaft member having a pin-like moving element joined to the cam holes 2, 3, the shaft member is moved forward/backward to move the pair of cutter bases along the cam holes in an open/close direction of stripping cutters with respect to the pin-like moving element, thereby simplifying and reducing the size and weight of a driving mechanism in the open/close direction of the stripping cutters".

In the Invention A-1, when the structure, "an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through", is employed, the "guide hole" is "inclined at a constant angle". In such case, it can be said that the effect of the structure described in Evidence A No. 10, "when the moving element moves within the straight parts of the cam holes, the pair of cutter bases do not move in the close direction, and the stripping cutters do not open or close at all, therefore, a position of the electric wire positioning plate fixed to the shaft member having the moving element can be changed as desired by positioning the moving element in an arbitrary location within a range of the length of the straight parts, stripping length of the electric wire is arbitrarily set, accordingly, and various types of electric wire can be stripped, a more simple and low-cost mechanism for adjusting stripping length is implemented as compared with a conventional large-scale NC mechanism", cannot be produced, and the effect of the structure described in Evidence A No. 10, "move the pair of cutter bases along the cam holes in an open/close direction

of stripping cutters with respect to the pin-like moving element, thereby simplifying and reducing the size and weight of a driving mechanism in the open/close direction of the stripping cutters", cannot be also produced, accordingly.

Thus, in the Invention A-1, in employing the "structure for changing a direction of motion using taper", presence of a disincentive is acknowledged, in light of the description of Evidence A No. 10, for employing the specific structure of the Corrected invention 1.

Therefore, on the basis of the descriptions in Evidences A No. 10 to No. 12, since the "structure for changing a direction of motion using taper" had been known before the filing of the application, even if the presence of motivation to employ the "mechanism for changing a direction of motion using taper" is acknowledged in the Invention A-1, it cannot be acknowledged that a person skilled in the art could have easily conceived of employing the structure relating to the Corrected invention 1, regarding the different feature, in the Invention A-1.

(J) In view of the above, it cannot be said that the Corrected invention 1 could have been easily made from the Invention A-1. The reason that the Corrected invention 1 violates the provisions of Article 29(2) of the Patent Act is groundless without examining whether the Invention A-1 falls under "inventions that were publicly known" "in Japan or a foreign country, prior to the filing of the patent application", "inventions that were publicly worked" "in Japan or a foreign country, prior to the filing country, prior to the filing of the patent application", or "inventions that were described in a distributed publication, or inventions that were made publicly available through an electric telecommunication line" "in Japan or a foreign country, prior to the filing of the patent application".

C Demandant's allegation

(A) The demandant alleges, in the written refutation of the trial case as of July 19, 2018, that "Therefore, the Patent invention is considered, as alleged by the demandee, to have a different feature in details of a mechanism which changes a direction of motion of the blade part linear-motion mechanism (direction parallel to a longitudinal direction of a coated cable) to a direction of sliding the blade in a direction orthogonal to the longitudinal direction of the coated cable. However, a mechanism of a plate cam which changes a predetermined motion direction to another motion direction has been well-known without indicating prior art documents. Such design modification can be easily made by a person skilled in the art based on the Invention A-1."

However, even if the mechanism of a plate cam which changes a predetermined

motion direction to another motion direction has been well-known, a motivation to use a plate cam in the Invention A-1 cannot be found by the means of proof submitted by the demandant, and even if a person skilled in the art could conceive of applying the mechanism of a plate cam which changes a predetermined motion direction to another motion direction to the Invention A-1, as examined in the above B, it cannot be acknowledged that a person skilled in the art could have easily conceived of employing the specific structure relating to the different feature from the Corrected invention 1.

Therefore, the demandant's allegation cannot be accepted.

(B) The demandant also alleges, in the oral proceedings statement brief as of September 28, 2018, that "B Regarding the different feature i) A product publicly worked using the Invention A-1, Rotary stripper KIND2-80, is configured so that a rotating body ("press ring B") of a blade part rotating mechanism includes a "hole formed at the center through which a coated cable passes". Thus, it is extremely easy to consider that the rotating body of the blade part rotating mechanism is a "hole formed at the center through which a coated cable passes" from the Invention A-1. C Regarding the different feature ii) The Corrected invention is configured so that the rotating body of the blade part rotating mechanism "comprises through-holes equal to the number of the blades formed outside" simply so as not to interfere with the arm part of the rotating blade part (corresponding to the "cutting arm" in the Invention A-1) moving forward/backward. Thus, it is extremely easy to consider that the rotating body of the blade part rotating mechanism "comprises through-holes equal to the number of blades formed outside" from the Invention A-1. D Regarding the different feature iii) The guide hole (plate cam mechanism) in the Corrected invention is an extremely general mechanism for changing a direction of motion using taper. Even when the U-shaped guide in the Invention A-1, which is formed in the cutting arm, is closed and formed as a long hole, it has no effect on function of mechanical elements thereof. The "cutting arm" in the Invention A-1 rotates in accordance with linear motion distance of the "press ring B". Even if the "cutting arm" and the "press ring B" are integrated, it has no effect on function of mechanical elements thereof. Evidence A No. 8 is a reference conceptual diagram created by the demandant. This reference conceptual diagram illustrates motion of the "cutting arm", "press ring B" and "cutting blade" when the "cutting arm" and the "press ring B" are integrated. In the reference conceptual diagram, locations of the "cutting arm", "press ring B", and "cutting blade" after moving the press ring B are indicated by dashed-two dotted lines. As such, even if the "cutting arm" is integrated with the "press ring B", the "cutting blade" slides in a direction orthogonal to the longitudinal direction of the coated cable, in the same way as the Corrected invention. Thus, it is easy to conceive of a configuration where the rotating blade part includes "an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through" and "the doughnut part" is "linearly moved in a direction parallel to the longitudinal direction of the coated cable" by the "blade part linear-motion mechanism"."

The demandant alleges, in the written statement as of November 9, 2018, that "(B) The mechanism for changing a direction of motion using taper is, as with the Patent Invention, is extremely general, for example, the invention described in Japanese Unexamined Patent Application Publication No. 2000-152451. Thus, it is not significantly difficult for a person skilled in the art to conceive of the Patent invention which has a different feature only in the mechanism for changing a direction of motion using taper formed in the arm part by integrating the "cutting arm" and the "press ring B" in the Invention A-1 and employing a configuration of the "arm part with a fixed angle not rotated in close-distant direction with respect to the coated cable". The demandee's allegation "The Patent invention has an inventive step" is unreasonable."

However, in the Invention A-1 having a mechanism that "the "press ring B" is linearly moved in a direction parallel to the longitudinal direction of the coated cable by driving the "stepping motor", and a distance to slide the "cutting blades" in the direction orthogonal to the longitudinal direction of the coated cable is adjusted by the change in the amount of rotation of the "cutting arm" which rotates in accordance with a distance of the linear motion of the "press ring B", to control the diameters of inscribed circles formed with the cutting edges of the "cutting blades" to be arbitrarily sized", it cannot be acknowledged that a person skilled in the art could have easily conceived of "a mechanism for changing a direction of motion using taper formed in the arm part by integrating the "cutting arm" and the "press ring B" in the Invention A-1 and employing a configuration of the "arm part with a fixed angle not rotated in close-distant direction with respect to the coated cable", from the fact that the mechanism for changing a direction of motion using taper is extremely general.

Thus, the demandant's allegation cannot be accepted.

⁽C) The demandant says, in "E Supplementary explanation" of the oral proceedings

statement brief as of September 28, 2018, that "As described above, in employing the same structure as the Corrected invention by integrating the "cutting arm" and the "press ring B", linear moving amount of the "press ring B" is increased as taper angle (θ) is reduced, resulting in enlarging the device. Since component force in a direction orthogonal to the moving direction of the "cutting blade" is increased as taper angle (θ) is increased, large load is imposed on the slide groove of the "slide base" via the "cutting blade", resulting in shifting the slide of the "cutting blade". Thus, the Invention A-1 is configured so that a distance of the "cutting blade" sliding in a direction orthogonal to the longitudinal direction of the coated cable is adjusted in accordance with change in the amount of rotation of the "cutting arm" which rotates in accordance with linear motion distance of the "press ring B". When the U-shaped guide is closed and formed as a long hole and the same structure as the Corrected invention is employed, two processes are required for forming a component using wire cut, for example, resulting in reduction of productivity of components. ... Therefore, the Invention A-1 forms a U-shaped guide in the "cutting arm" so as to improve productivity of components." The demandant alleges that the quality of the Corrected invention 1 is lower than that of the Invention A-1.

However, when the quality of the Corrected invention 1 is "lower" than that of the Invention A-1, a motivation to employ the configuration relating to the Corrected invention 1, in the Invention A-1, to implement the "lower" quality cannot be found.

Thus, even though the presence of the reason for prohibiting employment of the configuration of the Corrected invention 1, regarding the different feature, in the Invention A-1, or the presence of an disincentive, can be acknowledged from the above demandant's allegation, it cannot be acknowledged by the above allegation that a person skilled in the art could have easily made the Corrected invention 1 based on the Invention A-1.

Therefore, the demandant's allegation cannot be accepted.

(D) The demandant alleges in the written statement as of November 9, 2018, that "However, the Invention A-1 is, as described in the next page, to perform digital control with a predetermined approximate function between a moving amount Y of the "cutting blade" and a moving amount X of the "press ring B". Therefore, the demandee's allegation in p.5 l. 6 of the oral proceedings statement brief (2), "In the Invention A-1, extremely complicated moving control is required", is unreasonable. A function "L-Sin(θ B-(θ C-Sin-1((H-x)/line segment C)))=moving amount y" is presented in the next page.

However, it is obvious that the relational expression of a moving degree of the blade 26 and a moving degree of the arm part 22, "X=Ytan θ ", described by the demandee in the oral proceedings statement brief (2) as of October 12, 2018 is simpler than the above function in the Invention A-1. The Corrected invention 1 is acknowledged as producing the effect "to provide a coating device of a coated cable which can digitally control diameters of inscribed circles (cut depth of a coat) formed with cutting edges of rotating blades to be arbitrarily sized" (Specification [0011]) using the above relational expression.

(2) Summary

As examined above, it cannot be acknowledged that the Corrected invention 1 could be easily made by a person skilled in the art.

(3) Regarding the Corrected inventions 2, 3 of the case

The Corrected inventions 2, 3 are as acknowledged in "No. 3 Corrected invention of the case", and are described again below.

"[Claim 2]

The coat removing device for a coated cable described in Claim 1, characterized by including three or four blades, and notching one end or both ends of the cutting edges of the blades.

[Claim 3]

The coat removing device for a coated cable described in Claim 1, characterized in that the blades are configured so that two pairs of plate blades, each of which has an inclined surface toward a cutting edge formed on one surface, and having cutting edges facing each other across the coated cable, wherein different pairs of plate blades are arranged at positions rotated at 90 degrees where flat surfaces of the other pairs face each other and slidably held by the slide groove."

Both Corrected inventions 2 and 3 include the following configurations of the Corrected invention 1: "a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable"; and "a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a

constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through". Thus, for the same reasons as the Corrected invention 1, it cannot be acknowledged that a person skilled in the art could have easily made the Corrected inventions 2 and 3 based on the Invention A-1 and well-known arts.

Therefore, the reason that the Corrected inventions 2 and 3 violate the provisions of Article 29(2) of the Patent Act is groundless.

(4) Regarding the Corrected invention 4 of the case

The Corrected invention 4 is as acknowledged in "No. 3 Corrected invention of the case", and is described again below.

"[Claim 4]

A coat removing method for a coated cable of:

after fixing a coated cable, rotating and sliding a plurality of blades arranged at equal intervals on the same plane orthogonal to the longitudinal direction of the coated cable; toward the center of the coated cable by linear motion by digital control in a direction parallel to the longitudinal direction of the coated cable;

cutting the coat of the coated cable by rotation of the blades into round slices;

retreating the blades toward the opposite direction of the linear motion,

to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable; and

exposing a core material of the coated cable,

characterized by digitally controlling the diameters of inscribed circles formed with the cutting edges of the blades which rotate and slide by rotation of the blade rotating mechanism and the rotating blades and linear motion of the rotating blade part,

by a coat removing device for a coated cable comprising

a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable, and

a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through."

The Corrected invention 4 is an invention of a method corresponding to the Corrected invention 1, and comprises a configuration corresponding to "a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable" and "a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through". Thus, for the same reasons as the Corrected invention 1, it cannot be acknowledged that a person skilled in the art could have easily made the Corrected invention 4 based on the Invention A-1 and well-known arts.

Therefore, the reason that the Corrected invention 4 violates the provisions of Article 29(2) of the Patent Act is groundless.

(5) Regarding the Corrected invention 5 of the case

The Corrected invention 5 is as acknowledged in "No. 3 Corrected invention of the case", and is described again below.

"[Claim 5]

A coat removing device for a coated cable configured to, after fixing a coated cable, rotate and slide a plurality of blades arranged at equal intervals on the same plane orthogonal to the longitudinal direction of the coated cable toward the center of the coated cable by linear motion by digital control in a direction parallel to the longitudinal direction of the coated cable by rotation of the blades into round slices, retreat the blades toward the opposite direction of the linear motion, to lock the cut coat to the cutting edges of the blades to be moved in the longitudinal direction of the coated cable, and

expose a core material of the coated cable,

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and including a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable,

the coat removing device for a coated cable characterized by sliding by rotation and linear motion of a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through, and digitally controlling the diameters of inscribed circles formed with the cutting edges of the rotating blades to be arbitrarily sized by the linear motion."

The Corrected invention 5 also comprises the following configurations of the Corrected invention 1: "a blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable", and "a rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through". Thus, for the same reasons as the Corrected invention 1, it cannot be acknowledged that a person skilled in the art could have easily made the Corrected invention 5 based on the Invention A-1 and well-known arts.

Therefore, the reason that the Corrected invention 5 violates the provisions of Article 29(2) of the Patent Act is groundless.

(6) Summary

As described above, the Reasons for invalidation 3 has no reason.

(7) Closing

As described above, the patent for the Corrected invention 1 to 5 cannot be invalidated by the reasons alleged and the means of proof submitted by the demandant.

3 Regarding the Reasons for invalidation 2 (Article 123(1)(vi) of the Patent Act)(1) Judgment by the body

The right to obtain a patent is succeeded to an employer, etc. after an inventor originally acquires the right (main paragraph of Article 29(1), Article 35(2) of the Patent Act before the revision in 2015). On the basis of the fact that the demandee filed a patent application with the specification describing the Corrected inventions 1 to 5, as described in the patent publication of the Patent, it is presumed that Kazuaki SAITO of "MK ELECTRONICS Co., Ltd." is an inventor of the Corrected inventions 1 to 5 and the right has been succeeded to the demandee.

The demandant alleges that the Corrected inventions 1 to 5 were not invented by the demandee based on the Invention A-1.

The inventor of the Corrected inventions 1 to 5 is examined below.

An inventor is a person who was actually involved in creation of technical ideas, especially in completing characteristic portions of an invention relating to the means for solving the prior technical problem.

The characteristic portions of the Corrected inventions 1 to 5 are means for solving the following problem, or means for eliminating disadvantages of V blade and digitally controlling diameters of inscribed circles formed with cutting edges of rotating blades to be arbitrarily sized (Specification [0011]), the problem is that cut diameter of a coat of a coated cable formed by spirally rotating blades cannot be digitally controlled (Specification [0006]), and V blade does not transfer power equally to parts to be removed when moving a coat, thereby damaging or breaking a core material (Specification [0009]).

These means are implemented by the "blade part rotating mechanism comprising a rotating body having a hole formed at the center through which the coated cable passes and through-holes equal to the number of the blades formed outside, and a blade slide holding part which is arranged in continuity with the rotating body and has a slide groove which slidably holds the blades in a direction orthogonal to the longitudinal direction of the coated cable" and the "rotating blade part comprising an arm part with a fixed angle for slidably locking ends of the blades, having a closed oblique guide hole inclined at a constant angle and having a tip located outside in a direction of the blade part rotating mechanism and a counter end located at the center, and the arm part being located in the through-hole and not rotated in close-distant direction with respect to the coated cable, and a doughnut part for raising the arm part and having a hole for allowing the coated cable to pass through" in the Corrected inventions 1 to 5. Therefore, there is a difference from the Invention A-1. Thus, it should be said that the Invention A-1 is irrelevant to judging an inventor of the Corrected inventions 1 to 5.

The above matter is unaffected by examining all means of proof submitted by the demandant, including Evidences A No. 2 to No. 9-2 attached to the written demand for trial.

Thus, the demandant's allegation regarding the Reasons for invalidation 2 cannot be accepted due to an erroneous premise.

Based on the fact that the demandee filed an application with the specification describing the Corrected inventions 1 to 5 and the details of the demandee's allegation, it is presumed that the demandee is a person who has legally succeeded to the right to obtain a patent from the inventor of the Corrected inventions 1 to 5.

Thus, the patent for the Corrected invention 1 to 5 was not based on a patent application where the applicant for the patent is not the inventor and the applicant has not succeeded to the right to obtain a patent for the invention, and it cannot be said that the patent falls under the provisions of Article 123(1)(vi) of the Patent Act.

Therefore, the Reasons for invalidation 2 have no reason.

(2) Demandant's allegation

The demandant's allegation in the written reply as of December 4, 2018 is as follows: "A mechanism for changing a direction of motion using taper is described in "Japanese Unexamined Patent Application Publication No. 2000-152451" (Evidence A No. 10), and it is an extremely general technology described in general texts of mechanical elements (Evidences A No. 11 and No. 12) from about tens of years before. The demandant alleges that the patent technology of the case is a technology which has no inventive step and the application of the patent is a usurped application", and "The demandant demanded a trial decision that the patent regarding the patent application before the correction shall be invalidated. The patent invention before the correction is, for the most part, an imitation of the Invention A-1 as is obvious from the fact that the demandee should have demanded a correction by himself and the description in the written statement as of November 9, 2018 submitted by the demandant. The patent invention after the correction is to maintain the right of the patent invention before the

correction which is not described in the Invention A-1. However, the technology, which is not described in the Invention A-1, though, is an imitation of the technology described in the general texts of mechanical elements or "Japanese Unexamined Patent Application Publication No. 2000-152451" as described in the written statement 5(1). Although the patent technology of the case before the correction should be considered as an imitation of the Invention A-1, the patent technology after the correction, which is implemented only by replacing a part of the Invention A-1 by an extremely general technology, is substantially the same invention as the Invention A-1 and has not an inventive step. Moreover, the application of the patent technology is considered as a usurped application filed by a person who has no right to obtain a patent. It is reasonable that the Patent invention should be invalidated."

However, as described in the above (1), the Corrected inventions 1 to 5 were invented independent of the Invention A-1. Thus, it cannot be acknowledged that the patent for the above inventions is a usurped application filed by a person who has no right to obtain a patent. Therefore, the demandant's allegation cannot be accepted.

No. 7 Closing

As described above, the patent for the inventions according to Claims 1 to 5 corrected by the Correction cannot be invalidated by the reasons alleged and the means of proof submitted by the demandant.

No other reason for invalidating the patent for the inventions can be found.

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.

April 9, 2019

Chief administrative judge: IIDA, Kiyoshi Administrative judge: KATO, Koichi Administrative judge: FUKAZAWA, Masashi