PATENT COURT OF KOREA

FIFTH DIVISION

DECISION

Case No.	2015Heo8226 Invalidation (Patent)
Plaintiff	A
	CEO B
	Counsel for Plaintiff
	Patent Attorney in Charge Sanghoon JEONG
Defendant	C
	CEO D
	Counsel for Defendant Shin & Kim LLC.
	Attorneys in Charge Seonghyeon PARK, Bogyeong IM
Date of Closing Argument	May 11, 2016
Decision Date	June 17, 2016

ORDER

1. The IPTAB Decisions 2014Dang3326 and 2015Dang3680 (consolidated) dated November 23, 2015 shall be revoked.
2. The plaintiff shall pay 3/4 of the litigation cost incurred, and the remaining cost shall be borne by the defendant.

PLAINTIFF'S DEMAND

As ordered in Paragraph 1.

OPINION

1. Background

A. IPTAB Decision

1) Plaintiff's petition for invalidation

On December 24, 2014, the plaintiff filed, against the defendant, a petition for trial on patent invalidation, as IPTAB 2014Dang3326, to the effect that "an inventive step of claims 1 and 3 of the patented invention at issue (hereinafter the "Subject Invention") is denied." Also, on June 24, 2015, the plaintiff filed a petition for trial on patent invalidation, as IPTAB 2015Dang3680, to the effect that "an inventive step of claims 4 and 5 of the Subject Invention is denied."

2) Defendant's petition for correction

On September 3, 2015, in the proceedings for patent invalidation, the defendant filed a petition for correction (hereinafter, the "Petition for Correction") to correct claim 1 of the Subject Invention to 1.B.4) shown below.

3) IPTAB decision

The Intellectual Property Trial and Appeal Board (hereinafter the "IPTAB") consolidated and heard the two cases stated above together, and on November 23, 2015, rendered a decision to dismiss each of the above petition for trial on the ground that "the Correction Petition at Issue shall be upheld, and an

inventive step of corrected claims 1 and 3 through 5 is not denied by Prior Arts 1 through 4."

B. Defendant's Subject Invention (Plaintiff's Exhibit 2)

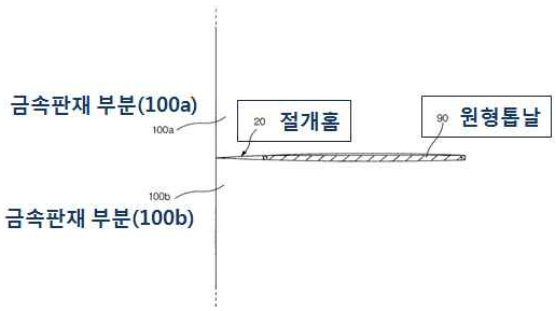
1) Title of invention: Apparatus for separating cutting groove of metallic plate

2) Filing date of application/ date of registration/ registration number: July 21, 2003/ November 30, 2005/ No. 10-0533809

3) Summary of invention

a) Prior art and problem to be solved

When the metal plate is cut with a circular saw, two parts (100a, 100b) of the metal plate (100) could be separated or tightly joined together around a cutting groove (20). The heat resulting from a friction force between the circular saw (90) and the metal plate (100) may deform the metal plate. If two parts of cut metal plate (100a, 100b) are tightly joined together, it would work as resistance and the circular saw would be damaged further. Also, as a cutting side of metal plate parts (100a, 100b) contacts the circular saw secondarily, a cutting surface would not be formed smoothly and burrs[1] or scraps would be



[FIG. 1b] Plan view to cut metal plate with circular saws according to the Prior Arts

금속판재 부분	Metal plate part
절개홈	Cutting groove
원형 톱날	Circular saw

generated.

In light of these problems, a conventional method has been proposed in which a worker inserts a wedge into the cutting groove to separate the cut part manually. However, since the worker cannot continuously provide a constant force, the work reliability could not be guaranteed.

b) Solution to the problem

A technical problem to be solved by the Subject Invention is to provide an apparatus for separating the cutting groove of a metal plate which could not only prevent saws from being damaged but also guarantee the reliability of quality of the cut metal plate by inserting, not by a worker, a wedge into the cutting groove of the metal plate cut by the circular saws. To this end, the Subject Invention introduced the means of transfer, such as Element 3 in 4) below.

4) Claims (correction of which is petitioned with Petition for Correction; additions by Petition for Correction are underlined)

【Claim 1】 An apparatus for separating cutting grooves of a metal plate, comprising: a wedge to be inserted selectively into the cutting groove of the cut metal plate from a position opposite a direction toward which a circular saw advances to cut the metal plate (hereinafter, "**Element 2**"); and transfer means to have cut parts of the metal plate to be separated around the cutting groove by transferring the wedge so that the wedge is inserted into the cutting groove, and by biasing the wedge toward the cutting groove

1) Burr: This refers to a scratch having the form of knife blade generated on a part that does not contact a tool blade when metal materials are sheared.

(hereinafter, "**Element 3**"), wherein the apparatus is adopted in a cutting device that cuts the metal plate with a cutting and advancing circular saw (hereinafter, "**Element 1**"). (hereinafter, "Corrected Claim 1;" hereinafter, the same shall apply)

【Claim 2】 (Omitted)

【Claim 3】 The apparatus for separating the cutting grooves of the metal plate according to claim 1, wherein the transfer means further comprises: 1st transfer means to move the wedge on a cutting route of the cutting groove; and 2nd transfer means to move the wedge transferred on the cutting route to insert the wedge into the cutting groove.

【Claim 4】 The apparatus for separating the cutting grooves of the metal plate according to claim 3, wherein the 1st transfer means bias toward a direction to which the wedge is inserted into the cutting groove by the 2nd transfer means, and then a part cut from the metal plate is separated from the cutting groove.

【Claim 5】 The apparatus for separating the cutting grooves of the metal plate according to claim 3, wherein the 2nd transfer means are inserted into the cutting groove, and then the cutting groove is further separated by biasing the cutting groove toward the cutting route direction.

【Claims 6】 through 【Claim 12】 (Omitted)

The plaintiff does not argue whether the petition for correction dated September 3, 2015 is upheld. Thus, hereinafter, whether the IPTAB Decision as to corrected claims 1 and 3 through 5 is lawful will be examined.

5) Main drawing: As shown in [Annex]

C. Prior Arts

1) Prior Art 1 (Plaintiff's Exhibit 4)

Prior Art 1 relates to a "saw guard" published in U.S. Patent Publication No. 2,007,887 on July 9, 1935.

2) Prior Art 2 (Plaintiff's Exhibit 5)

Prior Art 2 relates to a "circular saw splitter device with integral anti-kick back" published in U.S. Patent Gazette Publication No. 6,170,370 on January 9, 2001.

3) Prior Art 3 (Plaintiff's Exhibit 6)

Prior Art 3 relates to a "wedge intended to be inserted in a cutting slot" published in U.S. Patent Publication No. 6,463,922 on October 15, 2002.

4) Prior Art 4 (Plaintiff's Exhibit 7)

Prior Art 4 relates to a "straight line motion device with hydraulic cylinder" reported in "300 Automation Devices" published on October 5, 1982, and shows the following: "straight line motion device directly connected to cylinder" (p. 54); "straight line motion device with constant velocity directly connected to cylinder" (p. 257); "circuit connection device with two (2) straight line motions" (p. 333), etc.

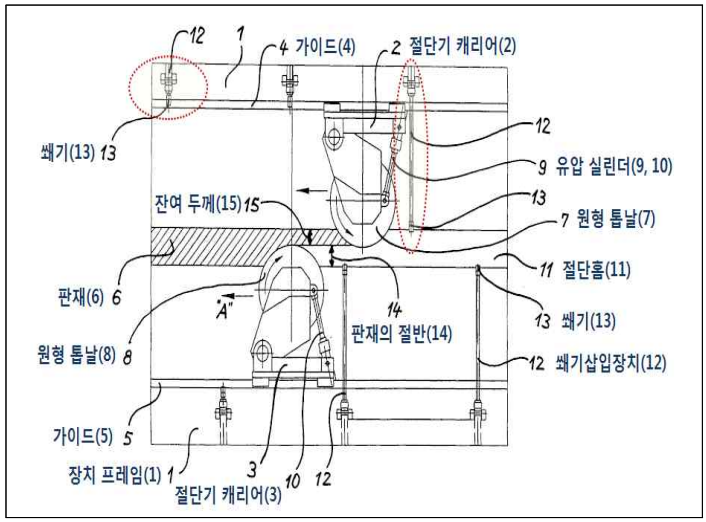
5) Prior Art 5 (Plaintiff's Exhibit 8)[2)]

Prior Art 5 relates to a "method and apparatus for cutting metal plate longitudinally" ([0001]) published in European Patent Publication No. EP0930107 on July 21, 1999.

Prior Art 5 is to provide a method and an apparatus to cut much more

2) Plaintiff's Exhibit No. 8 was not submitted in the Trial Procedure at Issue.

efficiently than the existing technology and to safely prevent a cutting tool from being clamped ([0004]).



The cutter carriers (2, 3) of guide (4) are arranged in a device frame (1) so that the cutter carriers can move above and below a plate (6) on a support (not illustrated) ([0010]). The cutter carriers (2, 3) have circular saw blades (7, 8). The cutter carrier (3) at the bottom of the plate (6) to be cut moves in a direction of “A” before the cutter carrier (2) at the top of the plate (6) does ([0011]). The circular saw blades (7, 8) in the cutter carriers (2, 3) are arranged so that they can rotate to the plate (6) through the hydraulic cylinders (9, 10).

가이드	Guide	절단기 캐리어	Cutter carrier
쐐기	Wedge	잔여 두께	Remaining thickness
유압 실린더	Hydraulic cylinder	원형 톱날	Circular saw blade
판재	Plate	판재의 절반	Half of plate
절단홈	Cutting groove	쐐기삽입장치	Wedge insertion device
가이드	Guide	장치 프레임	Device frame

In addition, the wedges (13) that can be inserted above or below the cutting groove (11) through the wedge insertion device (12) arranged at regular intervals are provided in the device frame (1) ([0012]). To cut the plate (6), the cutter carrier at the bottom (3) with circular saw blades (8) moves first and cuts about a half (14) of the plate. The plate (6) area is not yet cut completely. Further, the circular saw blades (7) arranged at the top of the cutter carrier (2) move

and cut the remaining thickness (15) of the plate (6) ([0013]). In order to prevent the whole cutting groove (11) from being closed completely, the wedges are inserted through the wedge insertion device (12) at regular intervals from the bottom of the first half (14) of the cutting groove formed by the cutting of circular saw blades (8) at the bottom. The wedges are inserted before the circular saw blade (7), which cut the remaining thickness (15) of the plate (6) from above, arrives at the cutting groove of the circular saw blades (8) at the bottom ([0014]). Also, the wedge can be inserted into the cutting groove of the circular saw blade (7) at the top through the wedge insertion device (12). Thus, it is completely impossible to clamp the circular saw blades (7, 8) with the cutting groove ([0015]).

【Factual basis】 Undisputed facts, statements in Plaintiff's Exhibits 1 through 8, and the purport of the overall argument

2. Whether IPTAB Erred

A. Arguments of Parties

1) Summary of plaintiff's arguments

The Subject Invention only automates insertion of a wedge with a mechanical force once a worker has inserted it manually. It is technically meaningless to separate the cutting grooves of the plate by pulling mechanically.

Thus, an inventive step of claim 1 of the Corrected Invention is denied by Prior Art 5, and an inventive step of claims 3 through 5 of the Corrected Invention is denied by the combination of Prior Arts 4 and 5. Therefore, the

IPTAB Decision shall not be upheld and shall instead be revoked, since it determined that an inventive step of claims 1 and 3 through 5 of the Subject Invention is not denied.

2) Summary of defendant's arguments

a) The Subject Invention biases additionally in a direction to separate a cut side from a cutting groove through the means of transfer even after a wedge is inserted completely into the cutting groove by organic combination of the wedge and the means of transfer. Thus, a separation distance can be finely tuned at a cut part, and a friction force applied to the circular saw blades can be minimized, and even one wedge can provide an optimal separation distance for various circular saw blades and cutting members. On the other hand, Prior Arts 1 through 5 do not show such composition or effect.

b) Claim 1 of the Corrected Invention and Prior Art 5 have different compositions in terms of the direction of insertion of a wedge and the performance of a bias function of the wedge transfer means. Due to the difference in these compositions, claim 1 of the Corrected Invention is structurally solid and can provide a sufficient separation force with a short working distance of the transfer means. Meanwhile, Prior Art 5 is in a form of long rod which is vulnerable to distortion of the transfer means, and thus plural wedge insertion devices must be installed or it should be manufactured with highly rigid members. Therefore, the costs increase. The two inventions are remarkably different also in terms of their effects. Moreover, Prior Art 5 shows

only a composition of inserting a wedge perpendicularly, and attempts to overcome its structural vulnerability merely by increasing the number of wedge insertion devices without recognizing any resulting problem or limitation. Thus, a person having ordinary skill in the art to which the present invention pertains (hereinafter, a "skilled person") would not be able to easily derive claim 1 of the Corrected Invention from Prior Art 5.

c) Claims 3 through 5 of the Subject Invention are structurally different from Prior Art 5 in that the former adopt the "means of transfer to bias," in particular, the "1st and the 2nd means of transfer to additionally bias a cutting plane and a cutting groove."

However, Prior Art 5 perceives the wedge insertion device only as a device to insert a wedge, but does not recognize a method to provide an additional bias by organically combining the wedge insertion device and the wedge, i.e. by moving the wedge perpendicularly to the cutting groove. Also, Prior Art 5 includes no implication or motivation to combine a vertical cylinder device shown in Prior Art 4. Thus, claims 3 through 5 of the Subject Invention would not be easily derived by combining Prior Art 5 with Prior Art 4.

Also, due to the compositional differences stated above, Prior Art 5 can separate cutting grooves up to a range corresponding to the thickness of the inserted wedge, and thus the wedge must be replaced depending on the degree of the groove cut. However, in claims 3 through 5 of the Subject Invention, the cutting grooves can be separated exceeding a range corresponding to the thickness

of the inserted wedge, and thus can be used in many cutting members and circular saw blades only with one wedge. Thus, the two inventions are different in terms of their effects.

d) Thus, the novelty and inventive step of claims 1 and 3 through 5 of the Subject Invention are not denied by Prior Arts 1 through 5.

B. Novelty of Claim 1 of Corrected Invention

1) Claim construction of claim 1 of Corrected Invention

a) Relevant laws

The scope of protection of a patented invention is determined by the descriptions of the claims. Except in exceptional circumstances, the claims shall not be construed to be restricted or overinterpreted by way of the detailed description, drawings, etc. The technical meaning of what is stated in the claims may be construed accurately only after taking into account the detailed description of the invention, drawings, etc. Thus, the statements in the claims shall be construed objectively and reasonably based on the general meaning of their literal descriptions in light of the detailed description of the invention, drawings, etc. after reviewing the technical meaning of such literal descriptions (see Supreme Court Decision, 2010Da75839, dated May 26, 2011).

b) Meaning of bias in Subject Invention

The term '바이어스 [ba-i-us]' is a phonetic notation for bias in Korean and means "1. Prejudice, deflection 2. Inclination 3. Cutting cloth slantly," or "Leaning," etc.

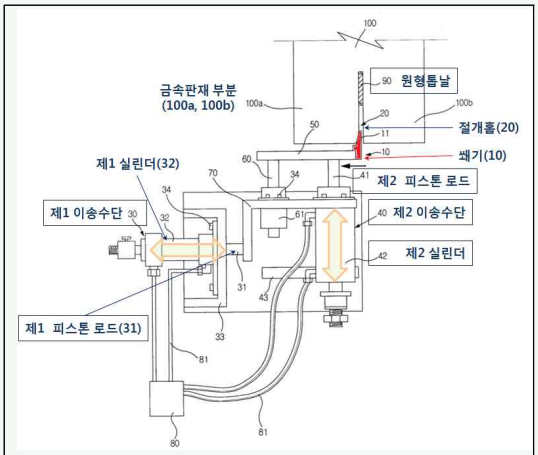
However, in light of the following statements and drawings as to the “bias” in the specification of the Subject Invention, the phrase in the Subject Invention that the means of transfer “biases a wedge toward a cutting groove” includes the following cases: ① where, as a wedge is inserted into a cutting groove, the cutting parts of the metal plate are separated from the cutting groove in both directions; ② where, after the wedge is inserted into the cutting groove, as the wedge is transferred additionally in a direction perpendicular to a cutting route by the means of transfer, one cutting part of the metal plate is separated from the cutting groove; and ③ where, after the wedge (10) is inserted into the cutting groove (20), as the wedge (10) is transferred additionally to the inside of the cutting groove (20) by the means of transfer, two cutting parts (100a) (100b) of the metal plate are separated from the cutting groove in both directions.

Thus, the term “바이어스 [ba-i-us]” in the Subject Invention means “to apply a constant force to the cutting groove through the wedge by inserting the wedge into the cutting groove by the means of transfer or by transferring the wedge additionally after the insertion.”

- Transfer means have cut parts of the metal plate separated around the cutting groove by transferring the wedge so that the wedge is inserted into the cutting groove and by biasing the wedge toward the cutting groove (Claim 1).
- The 1st transfer means bias toward a direction to which the wedge is inserted into the cutting groove by the 2nd transfer means, and then a part cut from the metal plate is separated from the cutting groove (Claim 4).
- The 2nd transfer means have the cutting groove separated further by biasing the cutting groove toward the cutting route after the wedge is inserted into the cutting groove (Claim 5).

• As to FIGs. 2 through 6

The control part could control the first transfer means (30) so that the wedge (10) is biased in a direction for a part of cut metal panel to be separated from the cutting groove after the wedge (10) is inserted into the cutting groove (20) (paragraph 7 on p. 5) ... Thus, the distal end tip of the wedge (10) combined with the support member (50) is inserted into the cutting groove (20), as illustrated in FIG. 5. Preferably, the wedge (10) becomes thicker from the distal end tip part (11) to the back. Thus, as the wedge (10) is biased toward the inside of cutting groove (20) by the 2nd transfer means (40), two cut parts (100a) (100b) of the metal plate become separated in both directions around the cutting groove (20) (last paragraph on p. 5 and first paragraph on p. 6) ... The wedge (10) inserted into the cutting groove (20)[3] is biased so that a part of the cut metal plate is separated from the cutting groove. Specifically, as illustrated in FIG. 6, after the wedge (10) is inserted completely into the cutting groove (20), one part (100a) of the cut metal plate is pulled to be separated from the cutting groove (20) by pulling the 1st piston rod (31) of the 1st transfer means in a reverse direction (paragraph 3 on p. 6).



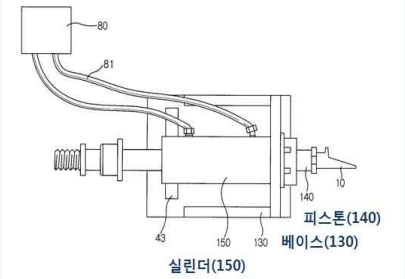
[FIG. 6] Plan view to show that the 1st transfer mean works to bias the cutting groove

금속판재 부분	Metal plate
원형 톱날	Circular saw blade
절개홈	Cutting groove
제1실린더	The 1st cylinder
쐐기	Wedge
제1이송수단	The 1st transfer mean
제2피스톤 로드	The 2nd piston rod
제2이송수단	The 2nd transfer mean
제2실린더	The 2nd cylinder
제1피스톤 로드	The 1st piston rod

• As to FIG. 7

... if a circular saw blade cuts the metal plate (100) and the cutting groove (20) is

formed, the wedge (10) is inserted into the rear of the cutting groove (20) depending on the operation of the cylinder (150) and piston rod (140). Desirably, as in the embodiment explained above[4], as the wedge (10) is biased toward the inside of the cutting groove (20) by the transfer means, two parts (100a) (100b) of the cut metal plate are separated from each other (paragraph 6 on p. 6).



[FIG. 7] Plan view of cutting groove separating device of metal plate

2) Comparison of claim 1 of Corrected Invention and Prior Art 5

a) The corresponding relationship by element between claim 1 of the Corrected Invention and Prior Art 5 is as stated in the Table shown below:

Element	Claim 1 of Corrected Invention	Prior Art 5
1	Wherein the apparatus is adopted in a cutting device that cuts the metal plate with cutting and advancing circular saws	The wedge insertion device (12) and the wedge (13) installed on the device frame (1) that cuts the plate (6) with cutting and moving circular saw blades (7, 8) ([0010] through [0014])
2	A wedge to be inserted selectively into the cutting groove of the cut metal plate from a position opposite a direction toward which the circular saws advance to cut the metal plate	In order to prevent the whole cutting groove (11) from being closed completely, the wedges are inserted, by the wedge insertion device (12), at a regular interval from the bottom of the first half (14) of the cutting grooves formed by the cutting of the circular saw blade (8) at the bottom ([0014] and drawings) The wedges (13) can be inserted, at a

3) Specification of the Subject Invention states as “cutting groove (10).” However, this must be a mistake in writing of the “cutting groove (20).” Thus, this decision states as the “cutting groove (20).”

4) Specification of the Subject Invention states as “implementation example.” However, this must be a mistake in writing of the “embodiment.” Thus, this decision states as the “embodiment.”

		regular interval, into the cutting groove of circular saw blade (7) at the top by the wedge insertion device (12) ([0015] and drawings)
3	Transfer means to have cut parts of the metal plate separated around the cutting groove by transferring the wedge so that the wedge is inserted into the cutting groove and by biasing the wedge toward the cutting groove	The wedge insertion device (12) that transfers the wedge (13) so that the wedge (13) is inserted into the cutting groove (11) ([0011], [0012])

b) Element 1 in claim 1 of the Corrected Invention and its corresponding element in Prior Art 5 are identical in that they are cutting groove separating devices that are adopted in a cutting device to cut a metal plate with cutting and moving circular saw blades.

c) The corresponding element in Prior Art 5 falls within a subordinate concept of Element 2 in claim 1 of the Corrected Invention.

(1) Element 2 in claim 1 of the Corrected Invention only states that "a wedge is inserted ... from a position opposite a direction toward which the circular saws advance," but does not restrict a direction of insertion, the number of means of transfer, or the number of wedges to be inserted. Thus, the following are included in the scope of Element 2: the wedges are inserted sequentially into a cutting groove in a direction perpendicular to the cutting route at a position opposite the moving direction of the wedges by the straight line motion of several wedge insertion devices arranged at a certain interval on

a line parallel to the cutting route line and perpendicular to the vertical direction of the cutting route line at the upper part and lower part of the frame.

(2) In this regard, the defendant argues that in Element 2, the wedge is inserted into the cutting groove in a direction parallel to the cutting route line at a position opposite a direction in which a circular saw blade advances.

However, it is difficult to accept the defendant's arguments stated above, in light of the following facts: Element 2 restricts a point to which the wedge is inserted only to the "opposite point," but does not restrict a direction of insertion of the wedge on that point; and claim 2 of the Corrected Invention, which is a dependent claim of claim 1 of the Corrected Invention, specifically restricts a direction of insertion of the wedge by stating that "the wedge may be inserted into the cutting groove in any one of the cutting direction, top direction, or bottom direction."

d) Element 3 relates to "transferring the wedge and biasing the same toward the cutting groove by the transfer means." In light of the meaning of "bias" used in the Subject Invention as stated above, this means that as the wedge is inserted into the cutting groove by the transfer means, the cut parts of the metal plate are separated around the cutting groove by the insertion force.

Even if a corresponding element in Prior Art 5 has no statement regarding a bias function of the wedge insertion device, it is obvious that the cut parts of the metal plate would be separated around the cutting groove, provided that the wedge is inserted into the cutting groove by the wedge insertion device. That is,

Element 3 merely expresses, in a different way, the intrinsic function or effect of the wedge insertion device.

Thus, Element 3 is also identical to a corresponding element in Prior Art 5.

Meanwhile, the defendant argues that the “transfer means” in Element 3 refers to what is adjusted in the control member by an electronic device.

However, the “transfer means” may not be viewed as restrictively as the defendant argues, in light of the fact that claim 1 of the Corrected Invention contains no such restriction and the detailed description of the invention includes no statement that the “transfer means” is adjusted by an electronic device. It is obvious also from the fact that claims 6 and 7 of the Subject Invention add the control member of the transfer means.

3) Results of comparison

As examined above, Prior Art 5 contains all elements of claim 1 of the Corrected Invention and their organic combination. Thus, the novelty of claim 1 of the Corrected Invention is denied by Prior Art 5.

C. Inventive Step of Claim 3 of Corrected Invention

1) Relevant laws

Where a claim stated in the claims of a patented invention is composed of a number of elements, an inventive step of the claim shall be determined not based on each element independently, but based on the technical idea as a whole in which each element is combined in an organic manner. Thus, when determining whether a patented invention has an inventive step, it is insufficient

to merely disassemble a number of compositions stated in the claims and examine whether each disassembled element is already disclosed. The difficulty of composition shall be examined as a whole which is organically combined based on the unique principles of the solution to the problem. Also, the unique effect of the invention shall be considered as an entire composition (see Supreme Court Decision, 2005Hu3284, dated September 6, 2007).

2) Comparison of Claim 3 of Corrected Invention and Prior Art 5

a) Claim construction of Claim 3 of Corrected Invention

Claim 3 of the Corrected Invention is a dependent claim of claim 1 of the Corrected Invention. Also, claim 3 of the Corrected Invention restricts and classifies the "transfer means" among elements of claim 1 of the Corrected Invention into the "1st transfer means to move the wedge on a cutting route of the cutting groove" and the "2nd transfer means to move the wedge transferred on the cutting route to insert the wedge into the cutting groove."

However, as examined above, in light of the statements and drawings in the specification of the Subject Invention, the phrase "the 1st transfer means to move the wedge on a cutting route of the cutting groove" means a "transfer means to move the wedge to a point at which an insertion direction of the wedge is in line with an extension of the cutting route line from the opposite direction of circular saw blades or a point at which an insertion direction of the wedge is perpendicular to the cutting route line from the opposite direction of circular saw blades." Also, the phrase "the 2nd transfer means to move the wedge transferred

on the cutting route to insert the wedge into the cutting groove" is construed to mean "the transfer means to insert the wedge located at points as stated above by the 1st transfer means into the cutting groove through a straight line motion."

b) Commonalities and differences between two inventions

As examined above, in Prior Art 5, the wedges are sequentially inserted into the cutting groove in a direction perpendicular to the cutting route line from the top and bottom of frames by a straight line motion. Thus, Prior Art 5 and claim 3 of the Corrected Invention are identical in that they are equipped with the "2nd transfer means (wedge insertion device) that inserts the wedges directly into the cutting groove by a straight line motion." However, Prior Art 5 and claim 3 of the Corrected Invention are different in that Prior Art 5 does not contain an element that corresponds to the "1st transfer means" among the elements in claim 3 of the Corrected Invention.

3) Analysis of differences

Prior Art 4 has a composition to transfer parts from front to back and side to side of the air cylinder (A) and the air cylinder (B). Also, Prior Art 4 is a technology textbook titled "300 Automation Devices" which was published about 20 years before the application of the Subject Invention was filed. Thus, it seems, as the plaintiff argues, that the composition of the air cylinder above was generally known and widely practiced in the art as of the date on which the application of the Subject Invention was filed.

However, claim 3 of the Corrected Invention organically combines the

following: “the 1st transfer means to move the wedge in all directions so that the wedge is arranged vertically perpendicular to the cutting route line or an extension thereof so that the wedge is parallel”; and “the 2nd transfer means to insert the wedge arranged on the cutting route line directly into the cutting groove by a straight line motion.” Thus, claim 3 of the Corrected Invention could adjust an insertion location of the wedge depending on the size, thickness, cutting width, etc. of the metal plate to be cut. Also, the 1st transfer means and the 2nd transfer means could provide an additional bias, as in claims 4 and 5 of the Corrected Invention. Ultimately, an object of claim 3 of the Corrected Invention is to provide an optimal separation distance for various saw blades and cutting members even with only a single wedge.

Meanwhile, as a solution to the problem of continuing maintenance of the separation of cutting grooves in a metal panel, Prior Art 5 adopted a composition in which, as the circular saw blades progress, plural wedges are sequentially inserted by plural wedge insertion devices arranged at a regular distance at the top and bottom of the frame. The wedge insertion device is to move only straight so as to be vertically perpendicular to the cutting route line so that its location is fixed and the wedges can be inserted into the cutting groove. It seems that an object of Prior Art 5 would not be achieved due to contact or interference from other wedge insertion devices, provided that the wedge insertion device moves in a direction parallel to the cutting route line.

Thus, in order to derive claim 3 of the Corrected Invention by combining

Prior Art 5 with generally known practices in the art, such as Prior Art 4, etc., the composition of Prior Art 5 would have to be changed so substantially as to abandon its solution to the problem, i.e. “to insert plural wedges sequentially.” It is difficult to deem that a skilled person would be able to easily derive claim 3 of the Corrected Invention by combining Prior Art 5 with generally known practices in the art, such as Prior Art 4, etc. Also, there is no other evidence to admit otherwise.

4) Results of comparison

Ultimately, an inventive step of claim 3 of the Corrected Invention is not denied by Prior Arts 4 and 5.

D. Inventive Step of Claims 4 and 5 of the Corrected Invention

It is true that claims 4 and 5 of the Corrected Invention are dependent claims of claim 3 of the Corrected Invention. However, claims 4 and 5 of the Corrected Invention only additionally state an effect of the transfer means as being able to bias additionally after inserting the wedge, and are not structurally different from claim 3 of the Corrected Invention. Thus, it shall be deemed that claims 4 and 5 of the Corrected Invention are substantively identical to claim 3 of the Corrected Invention. Thus, an inventive step of claims 4 and 5 of the Corrected Invention is not denied, provided that an inventive step of claim 3 of the Corrected Invention is not denied.

E. Summary of Discussion

Since the novelty of claim 1 of the Corrected Invention is denied by Prior

Art 5, thereby invalidating the patent therefor. Further, since an inventive step of claims 3 through 5 is not denied, the patent therefor shall not be invalidated. Thus, in the IPTAB decision, the part as to claim 1 of the Corrected Invention is inconsistent with the above analysis and shall not be upheld. The remainder is consistent with the above analysis and shall be upheld.

3. Scope of Revocation of IPTAB Decision

Where a petition for correction is filed in the process of proceedings for invalidation, the grant of correction shall be heard together in the trial for invalidation. Thus, unlike an independent petition for a correction trial, the petition for correction does not become final and conclusive separately, but becomes final and conclusive when an IPTAB decision on invalidation becomes final and conclusive (Supreme Court Decision, 2010Hu2698, dated February 10, 2011). As examined above, the plaintiff's claim to seek the revocation of invalidation of claims 3, 4, and 5 of the Corrected Invention is without merit. However, as the plaintiff's claim to seek the revocation of invalidation of claim 1 of the Corrected Invention is well grounded and granted, the Petition for Correction that shall become final and conclusive in the process of the IPTAB Decision may not avoid the revocation in light of the legal principles stated above.

Meanwhile, even though invalidation of a patent must be determined on a claim-by-claim basis, a petition for correction in the process of administrative trial for invalidation shall be determined as a whole due to the indivisible

relationship between the claims, unless there are special circumstances (see Supreme Court Decision, 2007Hu1053, dated January 15, 2009). The Petition for Correction is directly for claim 1 of the Corrected Invention, but as long as claims 3 through 5 of the Corrected Invention are dependent claims of claim 1 of the Corrected Invention, the Petition for Correction is related not only to claim 1 of the Corrected Invention, but also to claims 3 through 5 of the Corrected Invention. Thus, in the IPTAB Decision, claims 3 through 5 of the Corrected Invention shall, without becoming final and conclusive separately, be invalidated together with the Petition for Correction. Ultimately, the IPTAB Decision shall be revoked in its entirety.

4. Conclusion

The plaintiff's claim to revoke the IPTAB decision is therefore well grounded and shall be granted. It is decided as ordered.

Presiding Judge Yeongjun OH

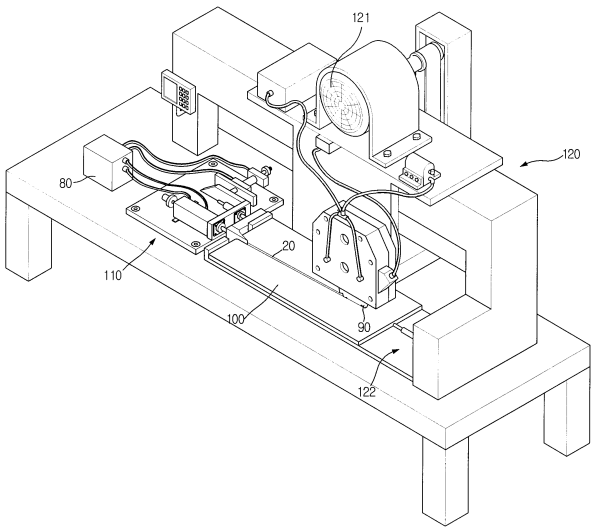
Judge Dongju GWON

Judge Donggyu KIM

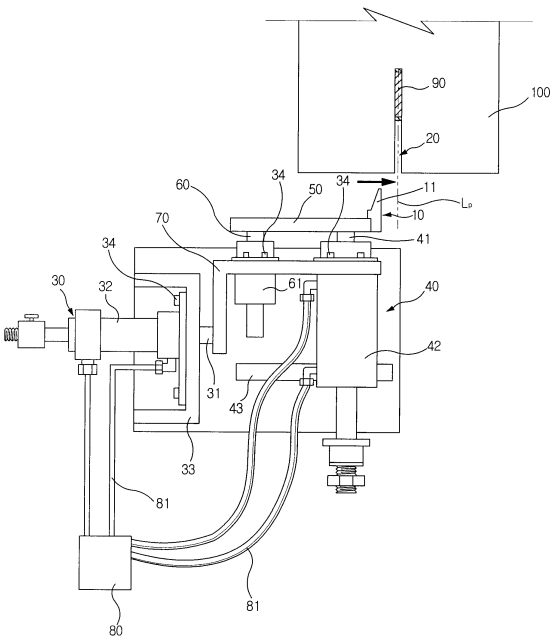
[Annex]

Main Drawings of Subject Invention

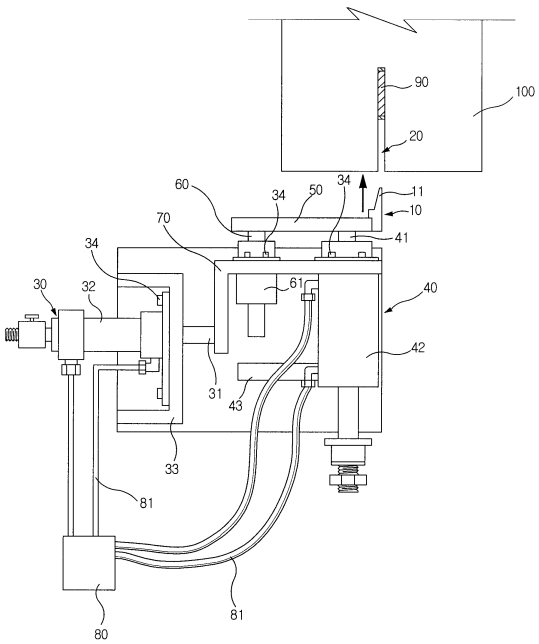
[FIG. 2] Perspective view of installation and operation of cutting groove separation device of metal plate on metal plate cutting device



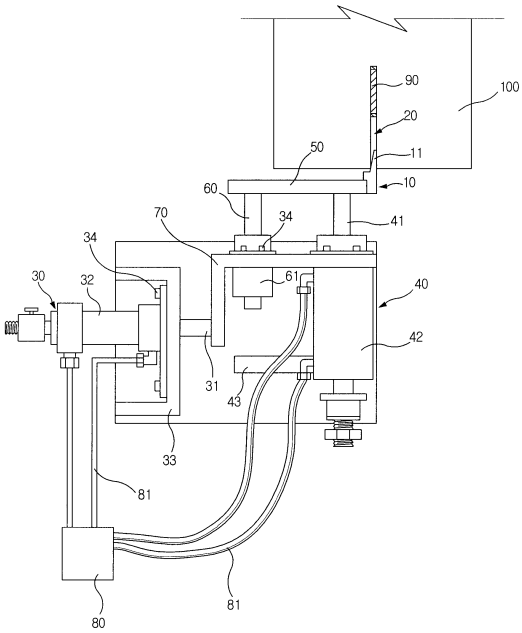
[FIG. 3] Plan view before cutting groove separation device of metal plate begins operation



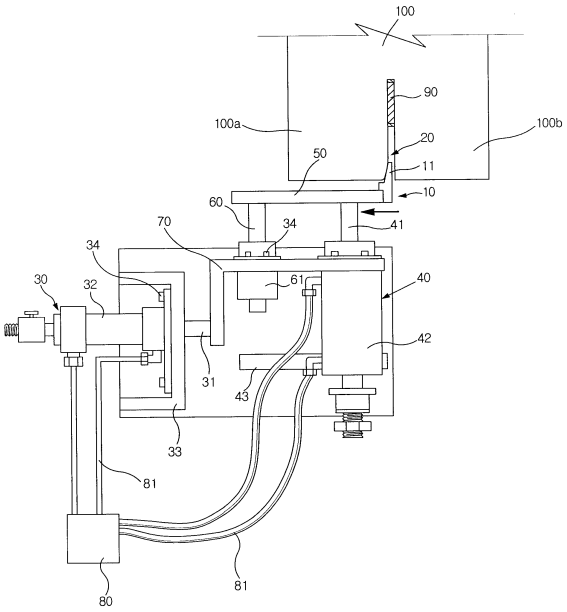
[FIG. 4] Plan view in which 1st piston rod of 1st transfer means move wedge on cutting route line



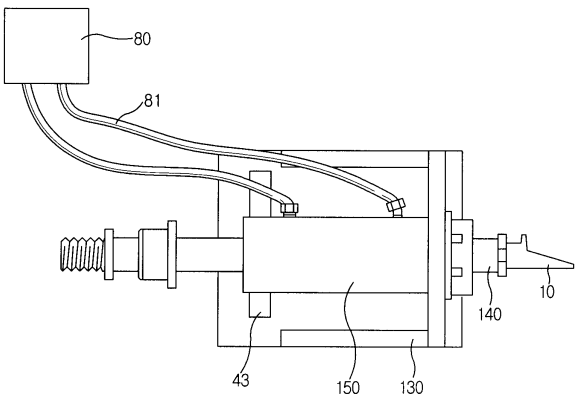
[FIG. 5] Plain view in which 2nd transfer means move and insert wedge into cutting groove



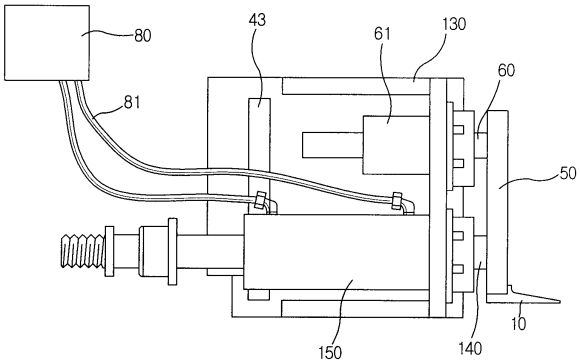
[FIG. 6] Plan view in which 1st transfer means run and bias cutting groove



[FIG. 7] Plan view of cutting groove separation device of metal plate according to another embodiment



[FIG. 8] Plan view of cutting groove separation device of metal plate according to another embodiment



10: Wedge, 11: Distal end tip, 20: Cutting groove, 30: 1st transfer means, 31: 1st piston rod, 32: 1st cylinder, 33: Support bracket, 34: Fastening member, 40: 2nd transfer means, 41: 2nd piston rod, 42: 2nd cylinder, 43: Guide rail, 50: Support member, 60: Guide bar, 61: Support block, 70: Moving bracket, 80: Hydraulic pump, 81: Pipe, 90: Circular saw blade, 100: Metal plate, 110: Cutting groove separation device of metal plate, 120: Metal plate cutting device, 121: Drive motor, 122: Jig, 130: Base, 140: Piston rod, 150: Cylinder

End.