

Trial Decision

Invalidation No. 2018-800027

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The case of trial regarding the invalidation of Japanese Patent No. 5688625, "Mounting structure of circuit breaker" between the above parties has resulted in the following trial decision.

Conclusion

The trial of the case was groundless.

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

Reasons

No. 1 History of the procedures

The application relating to Japanese Patent No. 5688625 is a divisional application filed on June 3, 2014 from Patent Application No.2013-215045 (hereinafter referred to as the "original application") filed on July 19, 2011,

which is a divisional application from Patent Application No.2012-57993 (hereinafter referred to as the "fourth generation parent application") filed on March 14, 2012, which is a divisional application from Patent Application No.2009-256786

(hereinafter referred to as the "third generation parent application") filed on November 10, 2009, which is a divisional application from Patent Application No.2008-120059 (hereinafter referred to as the "second generation parent application") filed on May 2, 2008, which is a divisional application from Patent Application No.2000-339793 (hereinafter referred to as the "first generation parent application in this case") filed on November 8, 2000.

The procedural history of this invalidation trial case since then is as follows.

1. March 2, 2018 Demand for Invalidation Trial in this case
2. March 19, 2018 Statement of Evidence (Demandant)
3. May 25, 2018 Written Reply to the trial case
4. June 4, 2018 Statement of Evidence (Demandee)
5. July 23, 2018 Notice of Proceedings
6. September 12, 2018 Oral Proceeding Statement Brief (Demandant)
7. September 12, 2018 Oral Proceeding Statement Brief (Demandee)
8. October 3, 2018 Oral Proceeding
9. December 17, 2018 Written Statement and Statement of Evidence 2 (Demandee)
10. December 26, 2018 Written Statement and Statement of Evidence 3 (Demandee)

No. 2 The Present Invention.

The invention claimed in Claim 1 of the present patent (hereinafter referred to as "the present invention") is as follows, as recited in Claim 1 of the scope of claims.

"[Claim 1]

A mounting structure of a circuit breaker, which is structure for mounting a plug-in type of circuit breaker having a plug-in terminal fitting on a power supply side onto a mounting plate provided with a bus bar on a distribution board or the like, wherein

a load side of the circuit breaker, which is on a side opposite to the bus bar, is provided with a lock lever that can be selectively held by an external knob, depending on whether it is protruding from a bottom surface of the circuit breaker,

the mounting plate is provided with a fitting portion of the lock lever,

when the circuit breaker placed on the mounting plate is slid in a direction of the bus bar, the bus bar is fitted into the plug-in terminal fitting,

when the fitting portion and a fitted portion respectively corresponding to the mounting plate and the circuit breaker are fitted with each other, a vertical movement of the circuit breaker with respect to the mounting plate is restricted, and

when the lock lever protrudes from the bottom surface of the circuit breaker and fits

into the fitting portion of the mounting plate, a movement of the circuit breaker in a direction of removing the circuit breaker from the bus bar is restricted, and the circuit breaker is in a state of being mounted to the mounting plate."

No. 3 Demandant's allegation

In the Demand for Invalidation Trial, the demandant has requested a trial decision that "the patent according to Claim 1 of Japanese Patent No. 5688625 shall be invalidated, and the cost in connection with the trial shall be borne by the demandee", and to sum up the Demand for Invalidation Trial and the Oral Proceeding Statement Brief dated September 12, 2008, the outline of the reasons for invalidation and the means of proof alleged by the demandant are as follows.

1 Reason 1 for Invalidation (Article 29(2) of the Patent Law (Inventive Step))

The invention claimed in Claim 1 of the present patent could have been easily invented by the person skilled in the art on the basis of the invention described in the Evidence A No. 1 and No. 2, and hence is not patentable under the Article 29(2) of the Patent Law. The Patent in question falls under Article 123(1) (ii) of the Patent Law, and should be invalidated.

2 Reason 2 for Invalidation (Article 29(2) of the Patent Law (Inventive Step))

The invention claimed in Claim 1 of the present patent could have been easily invented by the person skilled in the art on the basis of the invention described in the Evidence A No. 2 and No. 3, and hence is not patentable under Article 29(2) of the Patent Law. The Patent in question falls under Article 123(1)(ii) of the Patent Law, and should be invalidated.

3 Reason 3 for Invalidation (Divisional Requirement, Article 29(1)(iii) of the Patent Law (Novelty), Article 29(2) of the Patent Law (Inventive Step))

Because the application according to the present patent does not meet the requirements for division, the date of filing should be June 3, 2014.

The invention claimed in Claim 1 of the present patent is an invention described in Evidence A No. 4 (Application published on May 24, 2002). Therefore, it falls under Article 29(1)(iii) of the Patent Law and is not patentable. Moreover, the invention claimed in Claim 1 could have been easily invented by the person skilled in art on the basis of the invention described in the Evidence A No. 4, and therefore, the invention is not patentable under Article 29(1)(iii) of the Patent Law. The Patent in question falls under Article 123(1)(ii) of the Patent Law, and should be invalidated.

4 Means of Proof of Demandant

[Means of proof]

Evidence A No. 1: Japanese Unexamined Patent Application Publication No. H10-248122

Evidence A No. 2: Japanese Examined Utility Model Application Publication No. H6-44246

Evidence A No. 3: Japanese Unexamined Patent Application Publication No. H11-69529

Evidence A No. 4: Japanese Unexamined Patent Application Publication No. 2002-150911

Evidence A No. 5: Japanese Patent Application No. 2000-339793

Evidence A No. 6: Japanese Patent Application No. 2008-120059

Evidence A No. 7: Japanese Patent Application No. 2009-256786

Evidence A No. 8: Japanese Patent Application No. 2012-57993

Evidence A No. 9: Japanese Patent Application No. 2013-215045

No. 4 Demandee's allegation

In the Reply to the trial case, the demandee has requested a trial decision that "the trial of the case was groundless, and the cost in connection with the trial shall be borne by the demandant". To sum up the Reply to the trial case, the Oral Proceeding Statement Brief dated September 12, 2018, the Written Statement dated December 17, 2018, and the Written Statement dated December 26, 2018, the outline of the allegation and the means of proof alleged by the demandee are as follows.

1 Reason 1 for invalidation alleged by the demandant

As the present invention cannot be easily invented by a person skilled in the art from the inventions described in the Evidence A No. 1 and No. 2, the reason 1 for invalidation is groundless, and the present patent should not be invalidated under the reason 1 for invalidation.

2 Reason 2 for invalidation alleged by the demandant

As the present invention cannot be easily invented by a person skilled in the art from the inventions described in the Evidence A No. 2 and No. 3, the reason 2 for invalidation is groundless, and the present patent should not be invalidated under the reason 2 for invalidation.

3 Reason 3 for invalidation alleged by the demandant

The application according to the present patent is a legitimate divisional application that satisfies the divisional requirements specified in Article 44(1) of the Patent Law.

Therefore, the filing date of the present patent is "November 8, 2000" which is the filing date of the original application.

Moreover, the original application, i.e., Evidence A No. 4 does not qualify as a reference for novelty and inventive step of the present patented invention, and the patent should not be invalidated under the reason 3 for invalidation.

4 Means of proof of Demandee

[Means of proof]

Evidence B No. 1: "NITTO 2000CATALOG General Catalog", Nitto Kogyo Corporation, issued on February 16, 2000, p670 (copy)

Evidence B No. 2: "Board, Box, Breaker, and Time Switche '96-'97", Matsushita Electric Works, Ltd. issued in February 1996, p40-41, p172, p593 (copy)

Evidence B No. 3: "JIS Circuit Breaker for Wiring JIS C 8370-1991", Japanese Standards Association, October 3, 1991, p1-2, p42, p53 (copy)

Evidence B No. 4: "JEM 1292 (1970)", Japan Electrical Manufacturers' Association, April 20, 1973, page 2-1, p2 (copy)

Evidence B No. 5: "Nitto Standard Distribution and Control Board Catalog '97-'98 BAN Board", Nitto Kogyo Corporation, November 1997, p463-464 (copy)

Evidence B No. 6: "High-voltage vacuum change-over switch VSS type 7.2 KV 400A to 600A", Shin-Aichi Electric Manufacturing Co., Ltd, July 2016, p2 (copy)

Evidence B No. 7: Japanese Utility Model Application No. S49-132155 (Japanese Utility Model Application Publication No. S51-58352) Microfilm

Evidence B No. 8: Japanese Utility Model Application No. S49-149665 (Japanese Utility Model Application Publication No. S51-75563) Microfilm

Evidence B No. 9: Japanese Unexamined Patent Application Publication No. H6-124644

Evidence B No. 10: Japanese Utility Model Application No. S59-94930 (Japanese Utility Model Application Publication No. S61-9757) Microfilm

Evidence B No. 11: Japanese Unexamined Patent Application Publication No. H11-507200

Evidence B No. 12: 2008 (Wa) 5777 "Plaintiff's Brief (3)" in patent infringement injunction case submitted on December 17, 2018 p1-6, p58-78

No. 5. Description contents in Evidences A and Evidences B

1 Evidences A

(1) Evidence A No. 1

The following points are described in the Evidence A No. 1 along with the drawings (Note in the trial decision: hereinafter, the underline is made by the body).

A. "[Claim 1] A distribution board comprising: a main switch; a plurality of conductive bars electrically connected to the main switch; a plurality of branch switches that include receiving blade-shaped connection terminals arranged side by side on at least one side in a width direction perpendicular to a longitudinal direction of the conductive bars and plug-connected to at least one conductive bar, and that have hooking recesses formed on both sides in a longitudinal direction, which is a direction same as a direction of plugging the connection terminal into the conductive bar; and a plurality of mounting members mounted on a base, each having a hooking claw hooked into the hooking recess of the branch switch, wherein each of the mounting members is formed such that one hooking claw on a conductive bar side of the branch switch in the longitudinal direction is displaceable as viewed from the other hooking claw on the other side of the branch switch in the longitudinal direction, and the hooking claw on the other side of the branch switch in the longitudinal direction is substantially rigid.

[Claim 2] The distribution board according to Claim 1, wherein the base is provided with a slide holding part that freely holds the mounting member moving forward and backward in the direction of plugging the connection terminal into the conductive bar, and the mounting member is provided with a part to be slidably held that is held by the slide holding part.

[Claim 3] The distribution board according to Claim 2, wherein the slide holding part includes one of a long hole or a clamping part that clamps a periphery of the long hole from both front and back sides, and the part to be slidably held that is held by the slide holding part includes the other one of the long hole or the clamping part that clamps a periphery of the long hole from both the front and back sides.

[Claim 4] The distribution board according to Claim 2 or 3, wherein the base is provided with a locking part that locks the mounting member in a state where the connection terminal of the branch switch is plug-connected to the conductive bar by sliding the part to be slidably held along the slide holding part, and the mounting member is provided with a part to be locked that gets locked with the locking part.

[Claim 5] The distribution board according to Claim 4, wherein the locking part includes one of a locking hole or an elastic body locked to the locking hole, and the part to be locked includes the other one of the locking hole or the elastic body locked to the locking hole."

B. "[0001]

[Field of the Invention] The present invention relates to a distribution board, and particularly to a structure for mounting a branch switch."

C. "[0002]

[Prior art] As shown in Fig. 16, a conventional distribution board is provided with a base 2 at a bottom surface of a box 1, and a conductive bar 3 connected to a main switch is disposed on the base 2. Branch switches 4 are arranged in parallel on both sides perpendicular to a longitudinal direction of the conductive bar 3. Each branch switch 4 is mounted through a mounting member 5 provided below the branch switch 4. The mounting member 5 is mounted such that one end thereof is locked with a locking claw 6 of the base 2 and the other end thereof is fixed to the base with a screw 7. Both side surfaces of the branch switch 4 in the longitudinal direction (input/output terminal direction) are provided with hooking recesses 8. The mounting member 5 is provided with the hooking claws 9 on both ends thereof, and the branch switch 4 is mounted to the mounting member 5 by hooking the hooking claws 9 into the hooking recesses 8. Among the hooking claws 9 at both ends, the hooking claw 9 on the side opposite to the conductive bar 3 is an elastically deformable hooking claw 9a used for locking and unlocking. A connection fitting 10 is disposed between the conductive bar 3 and a screw terminal of the branch switch 4, and one end of the connection fitting 10 is connected to the conductive bar 3 with a screw 11, and the other end of the connection fitting 10 is connected to the screw terminal of the branch switch 4. In Fig. 16, 12 indicates an inner lid that can be opened and closed freely, and 13 indicates an opening/and closing door.

[0003]

[Problems to be resolved by the invention] In the conventional example, after mounting the branch switch 4 through the mounting member 5, it is possible to connect the connection fitting 10 to the conductive bar 3 and the branch switch 4 with a screw. Hence, there is no problem in the mounting method or disconnection of the branch switch 4. However, the following problem arises in the case of a branch switch integrally including a receiving blade-shaped connection terminal. For the branch switch including a receiving blade-shaped connection terminal, the branch switch is plugged from a lateral direction, and the connection terminal is plugged into the conductive bar, and the hooking claws of the mounting member must lock into the hooking recesses at both ends of the branch switch. Moreover, there is a problem that the hooking claw 9 on the outer side becomes an obstacle and hinders the installation

when plugged by sliding from the lateral direction. Even when it is installed, there is a problem that the hooking claw 9 on the outer side easily comes out because of being an elastically deformable hooking claw 9a. Moreover, it is also conceivable to install the branch switch 4 to the mounting members 5 in advance and then fix each mounting member 5 to the base 2. However, there is a problem that, since the mounting member 5 is mounted by fastening the screw 7, it cannot be mounted on the base 2 while the branch switch 4 is in a state of being mounted.

[0004] The present invention has been made in view of the above-mentioned points, and the object of the present invention is to provide a distribution board in which it is easy to mount a plug-in type of branch switch and difficult to disconnect the branch switch after mounting."

D. "[0010]

[Mode for carrying out the invention] First, an embodiment shown in Figs. 1 to 13 will be explained below. As shown in Figs. 1 to 3, bases 2 and 14 are mounted on a bottom surface of a box 1, a breaker such as a main switch 15 is mounted on the base 14, and a number of breakers such as branch switches 4 are mounted in parallel on the base 2. A long conductive bar 3 is disposed in a longitudinal direction of the box 1 in a center of the box 1 in a width direction on the bases 2 and 14, and one end of the conductive bar 3 is connected to the main switch 15. In this example, a single-phase 3-wire power supply is provided. The conductive bar 3 includes a first conductive bar (voltage pole bar) 3a, a second conductive bar (voltage pole bar) 3b, and a third conductive bar (neutral pole bar) 3c, which are provided in parallel. The above-mentioned branch switches 4 are mounted in parallel on both sides of the conductive bar 3. A freely opening/closing door 13 is installed at an opening of the box 1, and an inner lid 12 is installed in an inner side of the opening/closing door 13 so as to be opened and closed freely.

[0011] There are two types of branch switches 4: 100 V specification and 200 V specification. The branch switch 4 with 100 V specification includes a terminal connected to the first conductive bar 3a and the third conductive bar 3c (hereinafter referred to as L₁), and a terminal connected to the second conductive bar 3b and the third conductive bar 3c (hereinafter referred to as L₂). The branch switch 4 is provided with a receiving blade-shaped connection terminal 16. However, in this example, a separate conductive fitting 17 is mounted to provide the connection terminal 16. One end of the conductive fitting 17 is provided with the receiving blade-shaped connection terminal 16, and the other end of the conductive fitting 17 is provided with a coupling

part 27 having a U-shaped cutout. The coupling part 27 can be fastened with a screw and fixed between a terminal plate 18 and a terminal screw 19 of a terminal block part of the branch switch 4. There are 4 types of conductive fittings 17, i.e., a first conductive fitting 17a, a second conductive fitting 17b, a third conductive fitting 17c, and a fourth conductive fitting 17d. Further, a protective cover 20 is provided in a part where the conductive metal fittings 17 are mounted to cover this part. The protective cover 20 includes a first insertion space 21a, a second insertion space 21b, and a third insertion space 21c. This protective cover 20 is disposed to be in contact with an input terminal side of the branch switch 4."

E. "[0013] Hooking recesses 8 are provided on both ends of the branch switch 4 in the longitudinal direction (input/output terminal direction). The mounting member 5 are disposed under each of the branch switches 4, and the branch switches 4 are attached to the base 2 via these mounting members 5. The mounting member 5 is formed in a substantially U shape with an upper piece 5a and both side pieces 5b as shown in Fig. 6. Both ends of the mounting member 5 in the longitudinal direction are provided with the hooking claws 9 hooked and locked to the above-mentioned hooking recesses 8. Among the hooking claws 9 at both ends, the hooking claw 9 on the conductive bar 3 side is a hooking claw 9a used for locking and unlocking, and the other hooking claw 9 is substantially rigid. The branch switches 4 are disposed on the mounting members 5. The branch switches 4 are mounted on the mounting members 5 by hooking and locking the hooking claws 9 on both ends to the hooking recesses 8 of the branch switches 4. At this time, the branch switches 4 can be easily attached and detached using the hooking claw 9a used for locking and unlocking. The base 2 is perforated with a long hole 22 long in the longitudinal direction of the mounting member 5 as a slide holding part. The mounting member 5 is provided with a locking claw 23 corresponding to the long hole 22 as a part to be slidably held. This locking claw 23 is formed in a substantially L shape with a short vertical piece 23a and a laterally long horizontal piece 23b. A groove between the horizontal piece 23b and the side piece 5b is introduced into a periphery of the long hole 22. An upper surface of the horizontal piece 23b and a lower surface of the side piece 5b form a clamping part that clamps the periphery of the long hole 22 from both front and back sides. In addition, the base 2 is perforated with a locking hole 24 as a locking part, and a substantially V-shaped leaf spring 25 is provided as a part to be locked at a longitudinal end of the mounting member 5. A tip 25a of a downward pointed part of the leaf spring 25 is locked to the locking hole 24. Moreover, the leaf spring 25 also includes an operation piece 25b.

[0014] Then, the branch switch 4 is mounted together with the mounting member 5 as follows, in a state where the branch switch 4 is mounted on the mounting member 5. The mounting member 5 is disposed on the base 2 and the locking claw 23 is inserted into the long hole 23. The mounting member 5 together with the branch switch 4 is slid toward the conductive bar 3. When the branch switch 4 and the mounting member 5 are slid, the connection terminal 16 is plugged into the conductive bar 3 and electrically connected thereto. In this state, the locking claw 23 is located below the periphery of the long hole 22, and the periphery of the long hole 22 is sandwiched between the locking claw 23 and the side piece 5b. At this time, the tip 25a of the leaf spring 25 gets locked to the locking hole 24 to stop the movement of the mounting member 5. When the branch switch 4 is mounted in this manner, since the hooking claw 9a used for locking and unlocking is located on the conductive bar 3 side, it becomes difficult to detach the hooking claw 9a used for locking and unlocking and the hooking recesses 8 because of the locking of the conductive bar 3 and the connection terminal 16, and the branch switch 4 can be mounted in a manner of being difficult to detach. Moreover, the mounting member 5 can be removed together with the branch switch 4 by releasing the locking of the tip 25a of the leaf spring 25 and sliding it in a reverse direction of that mentioned direction.

[0015] In the above embodiment, it is mentioned that the base 2 is provided with the long hole 22 as the slide holding part and the mounting member 5 is provided with the locking claw 23 as the part to be slidably held. However, on the contrary, it is also possible to provide the base 2 with the locking claw 23 as the slide holding part and the mounting member 5 with the long hole 22 as the part to be slidably held. In the above embodiment, it is mentioned that the base 2 is provided with the locking hole 24 as the locking part and the mounting member 5 is provided with the leaf spring 25 as the part to be locked. However, on the contrary, it is also possible to provide the base 2 with the leaf spring 25 as the locking part and the mounting member 5 with the locking hole 24 as the part to be locked."

F. "[0016] Moreover, the embodiment shown in Figs. 14 and 15 will be explained below. The present embodiment is basically the same as the embodiment explained above; however, the main difference is the structure of the slide holding part and the part to be slidably held. First of all, in this example, the mounting member 5 is formed in a flat plate. Moreover, the long hole 22 in the base 2 is formed of a wide part 22a and a narrow part 22b. A part to be clamped 22c is provided on a side of the narrow part 22b, and an inner edge of the part to be clamped 22c is provided with a slope 22d.

... (Omitted)... When the locking claw 23 is inserted into the wide part 22a in a state where the wide part 22a of the long hole 22 and the locking claw 23 correspond to each other, and the mounting member 5 is slid, the connection terminal 16 is plugged into the conductive bar 3 and the horizontal piece 23b of the locking claw 23 is located under the part to be clamped 22c. The part to be clamped 22c is sandwiched between the lower surface of the mounting member 5 and the horizontal piece 23b. The tip 25a of the leaf spring 25 is locked to the locking hole 24 of the wide part 22a."

G."[0017]

[Effects of the invention] According to the invention in Claim 1 of the present invention, the mounting member is formed such that one hooking claw on the conductive bar side of the branch switch in the longitudinal direction is displaceable as viewed from the other hooking claw on the other side of the branch switch in the longitudinal direction and the other hooking claw on the other side of the branch switch in the longitudinal direction is made substantially rigid. Therefore, the branch switch can be easily mounted by disposing the branch switch between the two hooking claws of the mounting member in the longitudinal direction while displacing the hooking claw on the conductive bar side and by locking the hooking claw into the hooking recess. In addition, since the hooking claw on the side opposite to the conductive bar 3 is substantially rigid, it becomes difficult to detach the branch switch after mounting it on the mounting member in a state where the connection terminal of each branch switch is plug-connected to the conductive bar.

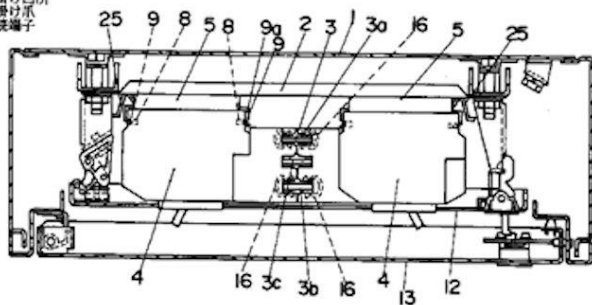
... (Omitted)...

[0020] The invention in Claim 4 of the present invention is based on Claim 2 or 3, wherein the base is provided with the locking part that locks the mounting member in a state where the connection terminal of the branch switch is plug-connected to the conductive bar by sliding the part to be slidably held along the slide holding part, and the mounting member is provided with the part to be locked that gets locked with the locking part. Therefore, when the mounting member is slid along the slide holding part of the base and the connection terminal of each branch switch is plug-connected in the conductive bar, the locking part and the part to be locked get locked with each other and the mounting member can be suppressed from moving in the direction in which the connection terminal of the branch switch is removed from the conductive bar, thereby firmly fixing the branch switch."

H. [Fig. 1], [Fig. 3], [Fig. 5] to [Fig. 7]

【図1】

- 1…箱体
- 2…ベース
- 3…導電バー
- 4…分岐開閉器
- 5…取り付け部材
- 8…引っ掛け凹所
- 9…引っ掛け爪
- 16…接続端子



【図3】

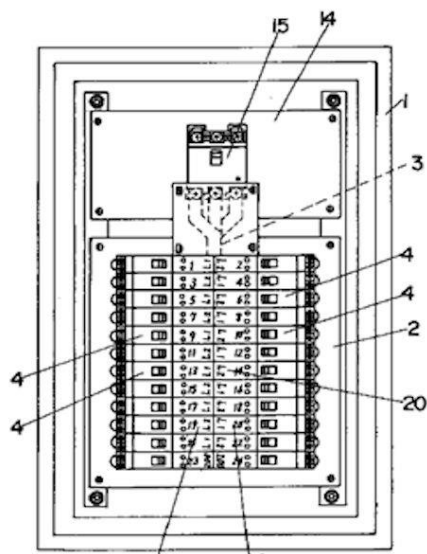
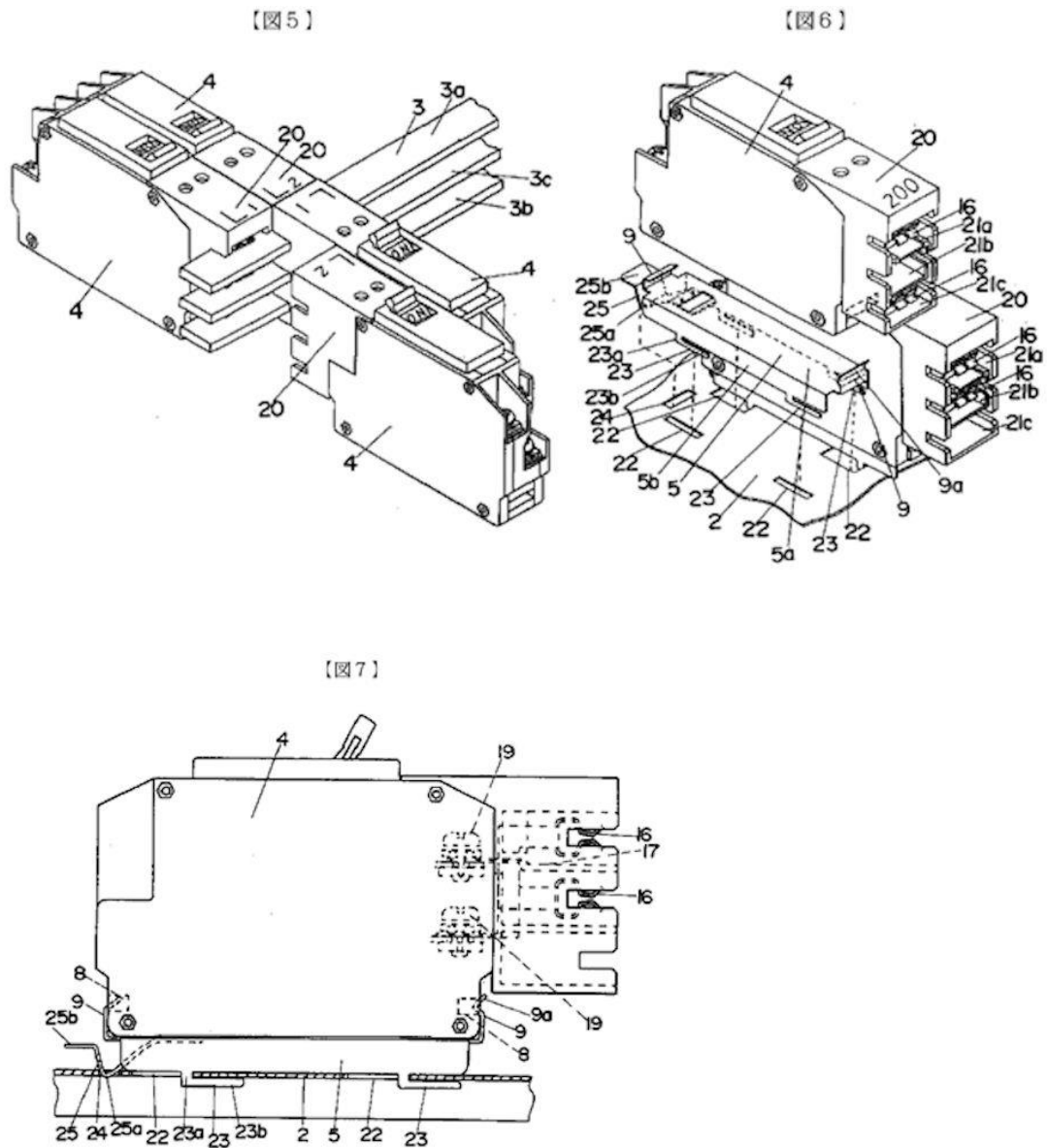


図 1	Fig. 1
1…箱体	1 Box
2…ベース	2 Base
3…導電バー	3 Bus bar
4…分岐開閉器	4 Branch switch
5…取り付け部材	5 Mounting member
8…引っ掛け凹所	8 Hooking recess
9…引っ掛け爪	9 Hooking claw
16…接続端子	16 Connection terminal
図 3	Fig. 3



☒ 5	Fig. 5
☒ 6	Fig. 6
☒ 7	Fig. 7

I. Based on the description of "E" that "when the branch switch 4 and the mounting member 5 are slid, the connection terminal 16 is plugged into the conductive bar 3 and electrically connected thereto." (paragraph [0014]), because the connection terminal 16 can be connected to the conductive bar 3 just by plugging the connection terminal 16 of the branch switches 4 into the conductive bar 3, it can be understood that the branch switch 4 is of plug-in type having the connection terminal 16 provided on the

conductive bar 3 side.

J. [Fig. 1] shows that the conductive bar 3 is provided on the base 2.

[Fig. 3] shows that one side of the conductive bar 3 is mounted on the main switch 15 on the base 14, and the other thereof side is extended on the base 2.

[Fig. 5] shows that one side of the branch switch 4 in the longitudinal direction is connected to the conductive bar 3 and the protective cover 20 is provided on the same side.

[Fig. 6] shows that the leaf spring 25 is provided on the side of the mounting member 5 opposite to the protective cover 20. In view of the fact that the protective cover 20 is provided on the side same as the branch switch 4 on the conductive bar 3 side as shown in [Fig. 5], it can be said that the leaf spring 25 is provided on the side of the mounting member 5 opposite to the branch switch 4 on the conductive bar 3 side.

K. [Fig. 7] shows a cross-sectional view of the state where the branch switches 4 are mounted on the base 2 through the mounting members 5. Here, considering the description of "E" that "the mounting member 5 is formed in a substantially U shape with an upper piece 5a and both side pieces 5b as shown in Fig. 6." (paragraph [0013]) and that "In addition, the base 2 is perforated with a locking hole 24 as a locking part, and a substantially V-shaped leaf spring 25 is provided as a part to be locked at a longitudinal end of the mounting member 5. A tip 25a of the downward pointed part of the leaf spring 25 locks the locking hole 24." (paragraph [0013]), it can be understood from the same figure that the upper surface of the base 2 which is perforated with the locking hole 24 and the lower surface of the side piece 5b of the mounting member 5 are in contact with each other, the locking claw 23 of the mounting member 5 to which the branch switch 4 is mounted is fitted into the long hole 22 in the base 2, and the tip 25a of the leaf spring 25 is protruded from the lower side of the side piece 5b of the mounting member 5 and gets locked into the locking hole 24 provided in the base 2.

L. Considering the description of "E" that "the mounting member 5 is formed in a substantially U shape with an upper piece 5a and side pieces 5b on both sides as shown in Fig. 6. ... (Omitted)... The base 2 is perforated with a long hole 22 in the longitudinal direction of the mounting member 5 as a slide holding part. ... (Omitted)... A groove between the horizontal piece 23b and the side piece 5b is introduced into a periphery of the long hole 22. An upper surface of the horizontal piece 23b and a lower surface of the side piece 5b form a clamping part that clamps the periphery of the long

hole 22 from both front and back sides." (paragraph [0013]), the description "the mounting member 5 is disposed on the base 2 and the locking claw 23 is inserted into the long hole 23. The mounting member 5 together with the branch switch 4 is slid toward the conductive bar 3. When the branch switch 4 and the mounting member 5 are slid, the connection terminal 16 is plugged into the conductive bar 3 and electrically connected thereto. In this state, the locking claw 23 is located below the periphery of the long hole 22, and the periphery of the long hole 22 is sandwiched between the locking claw 23 and the side piece 5b. (paragraph [0014]), and the description of [Fig. 7] in "K", it can be seen that the locking claw 23 provided on the mounting member 5 is inserted into the long hole 22 provided in the base 2; when the mounting members 5 having branch switches 4 placed on the base 2 are slid in the direction of the conductive bar 3, the conductive bar 3 is plugged into the connection terminal 16; the upper surface of the horizontal piece 23b and the lower surface of the side piece 5b of the locking claw 23 sandwich the periphery of the long hole 22 from both the front and back sides; hence, the locking claw 23 is said to be fit in the long hole 22; this fit prevents the mounting member 5 to which the branch switch 4 is mounted from slipping out in the vertical direction with respect to the base 2; in other words, the long hole 22 provided in the base 2 and the locking claw 23 in the mounting member 5 fit into each other, thereby restricting the vertical movement of the mounting member 5, to which the branch switch 4 is mounted, with respect to the base 2.

M. According to the description of "D" that "In this example, a single-phase 3-wire power supply is provided. The conductive bar 3 includes a first conductive bar (voltage pole bar) 3a, a second conductive bar (voltage pole bar) 3b, and a third conductive bar (neutral pole bar) 3c, which are provided in parallel." (paragraph [0010]), because the power supply is supplied to the conductive bar 3, it is the common technical knowledge that the side on which the connection terminal 16 connecting to the conductive bar 3 of the branch switch 4 is provided is said to be the power supply side and the opposite side is called as the load side (refer to the description of "2(1) B").

Moreover, considering the description mentioned in "E" that "The base 2 is perforated with a locking hole 24 as a locking part, and ... (omitted) ... A tip 25a of the downward pointed part of the leaf spring 25 locks the locking hole 24. Moreover, the leaf spring 25 also includes an operation piece 25b." (paragraph [0013]), and "At this time, the tip 25a of the leaf spring 25 gets locked to the locking hole 24 to stop the movement of the mounting member 5. ... (omitted)... Moreover, the mounting member 5 can be removed together with the branch switch 4 just by releasing the

locking of the tip 25a of the leaf spring 25 and sliding it in a reverse direction of that mentioned direction." (paragraph [0014]), and the description of [Fig. 7] in "K", it can be understood that when the tip 25a of the leaf spring 25 is locked to the locking hole 24, the upper surface of the base 2 which is perforated with the locking hole 24 and the lower surface of the side piece 5b of the mounting member 5 are in contact with each other; hence, at this time, the tip 25a of the leaf spring 25 protrudes from the lower surface of the side piece 5b of the mounting member 5; when the tip 25a of the leaf spring 25 is released, the tip 25a does not protrude from the lower surface of the side piece 5b of the mounting member 5; therefore, the load side opposite to the conductive bar 3 of the mounting member 5 is provided with the leaf spring 25 that can be alternatively selected by the operation piece 25b depending on whether it is protruding from the lower surface of the side piece 5b of the mounting member 5.

Based on the above description, it can also be understood that a flat spring 25 protrudes from the lower surface of the side piece 5b of the mounting member 5 and is locked to the locking hole 24 on the base 2, thereby restricting the movement of the mounting member 5 to which the branch switch 4 is mounted from the conductive bar 3 in the direction of removing the mounting member 5, and the mounting member 5 to which the branch switch 4 is mounted is in a state of being mounted on the base 2.

N. Considering the above description, authorized items, and illustrations together and arranging them in accordance with the description of the invention, the following invention is described in the Evidence A No. 1 (hereinafter referred to as the "A1 invention").

"A mounting structure for a mounting member 5 and a base 2 of a distribution board, a plug-in type of branch switch 4 being mounted to the mounting member 5, for mounting the plug-in type of branch switch 4 having a connection terminal 16 provided on a power supply side to the base 2, wherein,

a load side opposite to a conductive bar 3 of the mounting member 5 is provided with a leaf spring 25 that can be alternatively selected by an operation piece 25b depending on whether it is protruding from a lower surface of a side piece 5b of the mounting member 5,

the base 2 is provided with a locking hole 24 that locks the leaf spring 25,

when the mounting member 5 with the branch switch 4 mounted on the base 2 is slid in a direction of the conductive bar 3, the conductive bar 3 is plugged into the connection terminal 16,

when a long hole 22 provided in the base 2 and a locking claw 23 provided in the

mounting member 5 are fitted with each other, a vertical movement of the mounting member 5 to which the branch switch 4 is mounted, is restricted with respect to the base 2, and

when the leaf spring 25 protrudes from the lower side of the side piece 5b of the mounting member 5 and is locked to the locking hole 24 in the base 2, the movement of the mounting member 5, to which the branch switch 4 is mounted on the base 2, is restricted from the conductive bar 3, and the mounting member 5 to which the branch switch 4 is mounted is in a state of being mounted on the base 2."

(2) Evidence A No. 2

The following items are described in the Evidence A No. 2, along with the drawings.

A. "[Claim 1] A stand-mounted withdrawable power supply device comprising: a power supply stand; a power supply unit connected to a load circuit by a plug-in type of connector when the power supply unit is plugged to the power supply stand;

an operating handle which is accommodated vertically inside an accommodation recess provided in a front panel of the power supply unit when the power supply unit is anchored to the power supply stand, and which is axially supported on the front panel so as to be rotated horizontally when the anchoring is released;

an actuating rod having a support loop fixed at a predetermined angle at one end to an arm of the operating handle;

a locking arm which is vertically slidable on a rear surface of the front panel and has a support shaft fitted in the support loop of the actuating rod on a side surface thereof; and

a spring mechanism that holds the locking arm in a state position perpendicular to an axis movement direction when the locking arm is used to anchor and release the anchoring of the power supply unit and the power supply stand, wherein

the angle of the support loop of the actuating rod is changed by a rotary operation of the operating handle, and the locking arm is moved up and down with a vertical movement of the support shaft fitted in the support loop, so that a lower tip of the locking arm is locked to or unlocked to a locking groove of the power supply stand, and with the rotary operation of the operating handle, the power supply unit is anchored to the power supply frame and the anchoring is released." (Page 1, left column, line 2 to right column, line 10)

B. "(Field of industrial application)

The present invention relates to a power supply unit anchoring structure for a withdrawable power supply device mounted on a stand." (Page 1, right column, lines 12 to 14)

C. "(Prior art and its problems)

In a so-called stand-mounted withdrawable type power supply device in which one or plurality of power supply units equipped with, for example, plug connectors at the rear are plug-accommodated in a power supply stand equipped with receptacle connectors, and are connected to each other and to a load circuit by using the above connectors, it is necessary to prevent the cut-off of the power supply to the load circuit caused by slipping out of the power supply unit in operation from the power supply stand because of vibration etc.

Therefore, in the prior art, as shown in the perspective view and the partial cross-sectional side view in Figs. 1(a) and (b), a power supply unit (2) which is equipped with an operating handle (1) used for withdrawal and plugging can be anchored to a power supply stand (6) by mounting, to a front panel (2a) surface of the power supply unit (2), an anchoring fitting (3) including a locking arm (3b) with an operating knob (3a) protruding out of the panel surface and a slide case (3c) as follows. In other words, by lifting the operating knob (3a) upward, the tip of the locking arm (3b) is pulled up from a locking groove (5) provided in a chassis (4) side, and the power supply unit (2) is accommodated in the power supply stand (6). Then, by releasing the operation knob (3a) and allowing the tip of the locking arm (3b) to fall naturally into the locking groove (5) as shown in the dotted line in the figure, the power supply unit (2) can be anchored to the power supply stand (6). Furthermore, in the figure, (7) is the plug connector on the power supply unit (2) side and (8) is the receptacle unit on the power supply stand (6) side.

However, in this type of locking where the locking arm (3b) is naturally dropped by its own weight, vibration may cause the locking arm (3b) to oscillate up and down and there is a risk of slipping out of the locking groove (5). This may cause the power supply unit (2) to move forward due to its own weight, resulting in disconnection of the connectors, which may cause disconnection or instability of power supply to the load circuit and other devices. (Page 1, right column line 15 to page 2 left column, line 33)

D. "In the Fig. 2, (2a) is the front panel of the power supply unit described in the Fig. 1, (4) is the chassis of the power supply stand, and (5) is a locking groove provided in the chassis (4), which are similar to the conventional device described in Fig. 1. (10) is an

accommodation recess for the operating handle, which is provided in the front panel (2a) surface of the power supply unit (2) and is deep enough to prevent the operating handle (11) from protruding out of the panel surface.

The operating handle (11) is supported by a support shaft (11a), which is fixed in the horizontal direction at both ends of the lower part, by support holes (10a) provided in walls on both the sides of the lower end of the accommodation recess (10), and is operated such that it can rotate approximately 90 degrees from the vertical position as shown in Fig. 2(b) to the horizontal position as shown in Fig. 3(b). (12) is a locking arm, and is provided, at right and left surfaces, with a support shaft (12a) and notches (12b) and (12c) for holding the locking arm. (13) is a slide case, which is fixed to the back surface of the accommodation recess (10) of the operating handle to guide the vertical movement of the locking arm (12). (14) is an actuating rod of the locking arm, (14a) is a support loop. One end of the actuating rod (14) is fixed via a moving hole (12d) provided in the accommodation recess (10) of the operating handle, and the other end of the support loop (14a) is supported by the support shaft (12a) of the locking arm (12) such that it can move.

As shown in the Fig. 2, when the operating handle (11) is accommodated in the accommodation recess (10), the actuating rod (14) is rotated downward to move the locking arm (12) downward and enter the locking groove (5). Moreover, as shown in Fig. 3, when the operating handle (11) is removed from the accommodation recess (10) and located horizontally, the configuration is that the locking arm (12) is pulled out of the locking groove (5) by upward rotation of the actuating rod (14). (15) is a spring for semi-fixing the locking arm. (15a) is a bending part for holding the locking arm, which is fixed to the slide case (13). When the locking arm (12) enters the locking groove (5) on the chassis (4) side, as shown in Fig. 2(c), the bending part (15a) for holding falls into the upper notch (12c) for holding in the locking arm (12) by the spring force to hold the locking arm (12) and the operating handle (11) in position. When the locking arm (12) is pulled out of the locking groove (5) as shown in Fig. 3(c), the tip of the bending part (15a) for holding falls into the lower notch (12b) in the locking arm (12) by the spring force to hold the locking arm (12) and the operating handle (11) in position." (page 2, right column, lines 5 to 45)

E. "Therefore, the power supply unit (2) can be anchored to the power supply stand (6) by a simple operation of plugging the power supply unit (2) into the power supply stand (6) with the operating handle (11) laying down horizontally, and then pushing the operating handle (11) into the accommodation recess (10) and positioning it vertically.

In addition, the anchoring can be released by a simple operation of pulling out the power supply unit (2) after laying down the operating handle (11) horizontally, and the power supply unit (2) can be pulled out from the power supply stand (6), thus allowing the power supply unit (2) to be both anchored and released from the power supply stand (6) only by operating the operating handle (11).

... (Omitted)...

In the present design, the spring (15) for semi-fixing the locking arm holds the anchoring position and the anchoring release position of the locking arm (12), so there is no risk of the locking arm (12) oscillating up and down due to vibration and anchoring release, as in the past." (page 3, left column, line 3 to right column, line 2)

F. From each of the above descriptions, the following invention is described in Evidence A No. 2 (hereinafter referred to as "invention described in Evidence A No. 2").

"An anchoring structure for a stand-mounted withdrawable power supply device including a power supply stand 6, and a power supply unit 2 which is connected to a load circuit, etc., by a plug-in type of connector when plugged into the power supply stand 6 and which is subjected to pulling-out or plugging into with respect to the mount using an operating handle 1, wherein

the operating handle 11, a locking arm 12 that can slide in a vertical direction, and a spring body 15 for semi-fixing the locking arm 12 are provided,

when the operating handle 11 is positioned horizontally, the locking arm 12 is pulled out from a locking groove 5 of the power supply stand 6 to be at an anchoring release position, and the power supply unit 2 can be pulled out from the power supply stand 6,

after plugging the power supply unit 2 into the power supply stand 6, by positioning the operating handle 11 vertically, the locking arm 12 moves downward and into the locking groove 5 to be at an anchoring position, and the power supply unit 2 can be anchored to the power supply stand 6, and

the locking arm 12 is held in the anchoring position and the anchoring release position by the spring body 15 for semi-fixing the locking arm."

(3) Evidence A No. 3

The following items are described in Evidence A No. 3, together with the drawings.

A. "[Claim 1] A plug-in breaker mounting mechanism, wherein at a bottom of a plug-in breaker including a plug-in terminal fitting connected to a copper bar, a groove extending in a mounting direction of a breaker body is provided, and a regulatory fitting

is provided on a mounting plate side to regulate a mounting position of the plug-in breaker when fitting into the groove.

[Claim 2] The plug-in breaker mounting mechanism according to Claim 1, wherein the breaker body, which is mounted at an angle upward to a mounting plate, is provided with a regulatory fitting that regulates a lateral misalignment of the breaker body.

[Claim 3] The plug-in breaker mounting mechanism according to Claim 1, wherein the breaker body, which is mounted horizontally to a mounting plate, is provided with a regulatory fitting that permits a linear movement of the breaker body.

[Claim 4] The plug-in breaker mounting mechanism according to Claim 3, in which an end of the regulatory fitting is bent and fitted into the groove extending in the mounting direction of the breaker body."

B. "[0001]

[Technical field of the present invention] The present invention relates to a plug-in breaker mounting mechanism used to mount a plug-in breaker including a plug-in terminal fitting to a mounting plate of a distribution board."

C. "[0002] A mounting mechanism has been developed as shown in Fig. 11 in order to mount a breaker to a distribution board or other mounting plate with a one-touch operation. In this mounting mechanism, a first engagement claw 3 engaged with a first recess groove 2 formed in a power supply side end surface of a breaker body 1 and an elastic second engagement claw 5 that engages with a second recess 4 formed in a load side end surface of the breaker body 1 are integrally formed. As shown by the single-dotted line, the breaker body 1 is tilted to first engage the first recess 2 with the first engagement claw 3, and then the other end of the breaker body 1 is lowered to engage the second recess 4 with the second engagement claw 5.

[0003] This mounting mechanism can be used for ordinary breakers without any problem. However, the plug-in breaker shown in Fig. 12 has a plug-in terminal fitting 7 that is connected to a main bar 6 on a power supply side. Therefore, when the breaker body 1 is attempted to be mounted while tilted as described above, the first engagement claw 3, which conventionally serves to regulate the mounting position of the breaker body 1, engages the main bar 6 and a portion of the plug-in terminal fitting 7 before engaging with the first recess 2 of the breaker body 1. Consequently, when the second recess 4 of the breaker body 1 is fitted into the second engagement claw 5, if a force is accidentally applied from the side direction of the breaker body 1, the left and right positions of the breaker body 1 may shift, and the first engagement claw 3 may not

engage with the first recess 2 of the breaker body 1 and may hit the wall of the breaker body 1, resulting in failure to push the breaker body 1 sufficiently in the mounting direction. As a result, the poor contact between the main bar 6 and the plug-in terminal fitting 7 may cause accidents, so the conventional one-touch mounting mechanism is inappropriate for use with respect to plug-in breakers."

D. "[0004]

[Problem to be solved by the invention] The present invention is to provide a plug-in breaker mounting mechanism that solves the conventional problems described above and allows the plug-in breaker body to be mounted without causing misalignment.

[0005]

[Means to solve the problem] The plug-in breaker mounting mechanism to solve the above problem is characterized in that at a bottom of a plug-in breaker including a plug-in terminal fitting connected to a copper bar, a groove extending in a mounting direction of a breaker body is provided, and a regulatory fitting is provided on a mounting plate side to regulate a mounting position of the plug-in breaker when fitting into the groove."

E. "[0008]

[Embodiment of the Invention] The following drawings show the preferred embodiment of the invention. First, Figs. 1 to 3 show a first embodiment. In Fig. 1, 1 is a breaker body 1 of a plug-in breaker, and 7 is a plug-in terminal fitting on a power supply side end surface of the breaker body 1. The plug-in terminal fitting 7 is elastic and include open ends. In this example, the plug-in terminal fitting 7 is formed in three stages at upper and lower sides. Moreover, 6 is a 3-pole main bar formed in three stages at upper and lower sides. By fitting the breaker body 1 in the arrow direction as before, the tip of each main bar 6 is inserted into each plug-in terminal fitting, and the structure allows connection of the main bar 6 to the plug-in breaker without using other connecting fitting.

[0009] Both sides of the bottom of the breaker body 1 are provided with notched grooves 8 as shown in Fig. 2. These notched grooves 8 should only be provided on the power supply side of the breaker body 1. On the other hand, on the mounting plate 9 side, a regulatory fitting 10 is provided near the end surface of the main bar 6 on the mounting side end of the breaker body 1, closer to the second engagement claw 5 than the mounting side end surface. As show in Fig. 3, the regulatory fitting 10 engages with

the notched groove 8 in the breaker body and acts to prevent the breaker body 1 from shifting sideways when the plug-in terminal fitting of the breaker body 1 is fitted to the main bar 6."

F. "[0012] Next, Figs. 4 to 8 show a second embodiment. As shown in Figs. 4 and 5, in the second embodiment, both sides of the bottom of the breaker body 1 load side include the notched grooves 8 extending in the mounting direction. On the other hand, the regulatory fitting 10 is provided on the mounting plate 9 side. As shown in Fig. 6, the regulatory fitting 10 is fitted with the notched grooves 8 of the breaker body 1, allowing a linear movement of the breaker body 1 in contact with and apart from the main bar 6. Furthermore, the notched grooves 8 may be provided across the entire bottom of the breaker body 1.

[0013] A back surface of the mounting plate 9 includes a metal retaining fitting 11 with excellent elasticity. The retaining fitting 11 includes a protruding piece 13 protruding upward from a through hole 12 in the mounting plate 9, and is fixed to the mounting plate 9 with a screw 14 or the like such that the protruding piece 13 protrudes upward.

[0014] To mount the plug-in breaker to the mounting plate 9 using the mounting mechanism of the present invention, the breaker body 1 is slid linearly such that the bottom of the breaker body 1 does not lift off the mounting plate 9 with the recessed groove of the breaker body 1 in contact with the regulatory fitting 10 as shown in Fig. 4. At this time, since the breaker body 1 is allowed to move linearly by the action of the regulatory fitting 10, the plug-in terminal fitting 7 on the end surface of the power supply side moves linearly in the direction of the main bar 6 and engages with the main bar 6. Furthermore, at this time, the retaining fitting 11 elastically bends downward and the protruding piece 13 is in the state shown in Fig. 4.

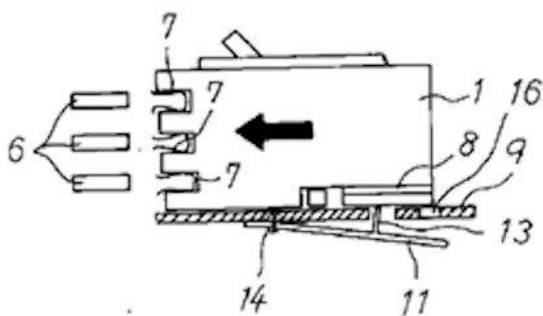
[0015] When the breaker body 1 is moved to a predetermined position (position where the plug-in terminal fitting 7 engages with the main bar 6) in this manner, the retaining fitting 11, which has previously bent downward, returns upward as shown in Fig. 7, and the protruding piece 13 engages with the end surface 15 of the breaker body 1 on the load side. As a result, the breaker body 1 can no longer move toward the right in the figure and is fixed on the mounting plate 9. Furthermore, to remove the breaker body 1 from the mounting plate 9, as shown in Fig. 7, a screwdriver or other tool is plugged through the other through-hole 16 of the mounting plate 9 and the breaker body 1 is slid to the right while bending the retaining fitting downward."

G. "[0017] In a third embodiment as shown in Figs. 9 and 10, the notched groove in the breaker body 1 is a recessed groove, and the tips of both ends of the regulatory fitting are bent inward. As shown in Fig. 10, the regulatory fitting 10 engages with the aforementioned groove in the breaker body 1, allowing only a linear movement of the breaker body 1 in contact with and apart from the main bar 6. Moreover, the bent tip of the regulatory fitting 10 regulates the breaker body 1 such that it cannot pull out upward against the mounting plate 9 even after the mounting.

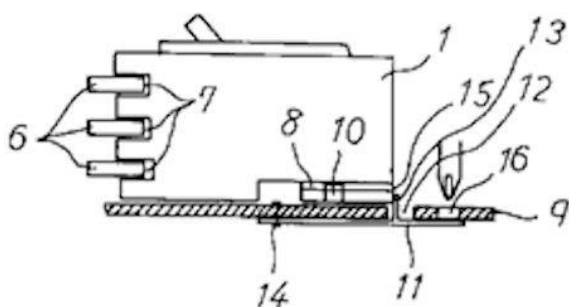
[0018] Moreover, the regulatory fitting 10 can be on only one side, and its shape is not limited to the above embodiment. For example, it can be T-shaped, and the groove in the breaker body 1 can be corresponding to this shape. Furthermore, the retaining fitting 11 is the same as in the second embodiment."

H. [Fig. 4], [Fig. 7] and [Fig. 10].

【图4】



【图7】



【図10】

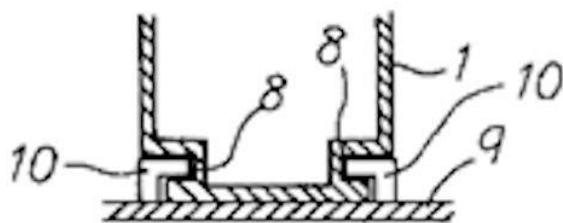


図 4	Fig. 4
図 7	Fig. 7
図 10	Fig. 10

I. [Fig. 4] shows that the back side of the mounting plate 9 is provided with the retaining fitting 11, and the protruding piece 13 of the retaining fitting 11 is not protruding from the through hole 12 of the mounting plate 9.

[Fig 7] shows a that the main bar 6, which is formed in three stages at upper and lower sides, is disposed above the mounting plate 9, the protruding piece 13 of the retaining fitting 11 protrudes upward from the through hole 12 of the mounting plate 9 and engages with the end surface 15 of the breaker body 1 on the load side with the main bar 6 plugged into the plug-in terminal fitting 7 of the breaker body 1, and the right direction in the figure of the breaker body 1 is the direction in which the breaker body 1 is removed.

[Fig. 10] shows that the regulatory fitting 10 with a bent tip provided on the mounting plate 9 and the notched grooves 8 provided in the breaker body 1 and formed as recessed grooves are fitted with each other.

J. From the description of "In a third embodiment as shown in Figs. 9 and 10" (paragraph [0017]) in "G" and "Furthermore, the retaining fitting 11 is the same as in the second embodiment." (paragraph [0018]), the configuration of the retaining fitting 11 in the second embodiment shown in Figs. 4 to 7 can be cited as the configuration of the retaining fitting 11 in the third embodiment shown in Figs. 9 and 10.

K. From the description in aforementioned "F" that "A back surface of the mounting plate 9 includes a metal retaining fitting 11 with excellent elasticity. The retaining fitting 11 includes a protruding piece 13 protruding upward from a through hole 12 in the mounting plate 9, and is fixed to the mounting plate 9 with a screw 14 or the like such

that the protruding piece 13 protrudes upward." (paragraph [0013]), "Furthermore, at this time, the retaining fitting 11 elastically bends downward and the protruding piece 13 is in the state shown in Fig. 4." (paragraph [0014]), and "the retaining fitting 11, which has previously bent downward, returns upward as shown in Fig. 7, and the protruding piece 13 engages with the end surface 15 of the breaker body 1 on the load side. As a result, the breaker body 1 can no longer move toward the right in the figure and is fixed on the mounting plate 9." (paragraph [0015]), as well as from the description of [Fig. 4] and [Fig. 7] in "I",

it can be seen that the back surface of the mounting plate 9 is provided with the retaining fitting 11 including the protruding piece 13 that protrudes upward or not protrude from the through hole 12 of the mounting plate 9, and

that the protruding piece 13 of the retaining fitting 11 protrudes from the through hole 12 of the mounting plate 9 and engages with the end surface 15 of the breaker body 1 on the load side, whereby the movement in the direction of removing the breaker body 1 from the main bar 6 is restricted, and the breaker body 1 is in a state of being mounted to the mounting plate 9.

L. Based on the description in "F" that "On the other hand, the regulatory fitting 10 is provided on the mounting plate 9 side." (paragraph [0012]), and "the breaker body 1 is slid linearly. At this time, since the breaker body 1 is allowed to move linearly by the action of the regulatory fitting 10, the plug-in terminal fitting 7 on the end surface of the power supply side moves linearly in the direction of the main bar 6 and engages with the main bar 6." (paragraph [0014]), and the description in "G" that "the notched groove in the breaker body 1 is a recessed groove, and the tips of both ends of the regulatory fitting are bent inward. As shown in Fig. 10, the regulatory fitting 10 engages with the aforementioned groove in the breaker body 1, allowing only a linear movement of the breaker body 1 in contact with and apart from the main bar 6. Moreover, the bent tip of the regulatory fitting 10 regulates the breaker body 1 such that it cannot pull out upward against the mounting plate 9 even after the mounting." (paragraph [0017]), as well as from the description of [Fig. 4], [Fig. 7] and [Fig. 10] in the aforementioned "I",

it can be seen that when the breaker body 1 placed on the mounting plate 9 is slid in the direction of the main bar 6, the main bar 6 is plugged into the plug-in terminal fitting 7, and

that the upward movement of the breaker body 1 with respect to the mounting plate 9 is restricted by the engagement of the regulatory fitting 10 with a bent tip on the mounting plate 9 and the notched grooves 8 provided in the breaker body 1 and formed

as recessed grooves.

M. Taking into the account the description, authorized items, and illustrations together and arranging them in accordance with the description of the invention, the following invention is described as the third embodiment in the Evidence A No. 3 (hereinafter referred to as "A3 Invention").

"A mounting structure of a breaker body 1, which is a structure for mounting the breaker body 1 of a plug-in breaker having a plug-in terminal fitting 7 on a power supply side onto a mounting plate 9 of a distribution board, wherein

a retaining fitting 11 made of a metal having excellent elasticity and provided with a protruding piece 13 that protrudes upward or not protrude from the through hole 12 of the mounting plate 9 is provided on a back surface of the mounting plate 9,

an end surface 15 of the breaker body 1 on a load side is engaged with the protruding piece 13 of the retaining fitting 11,

when the breaker body 1 placed on the mounting plate 9 is slid in a direction of the main bar 6, the main bar 6 is plugged into the plug-in terminal fitting 7,

an upward movement of the breaker body 1 with respect to the mounting plate 9 is restricted by engagement of the regulatory fitting 10 with a bent tip on the mounting plate 9 and notched grooves 8 provided in the breaker body 1 and formed as recessed grooves, and

when the protruding piece 13 of the retaining fitting 11 protrudes from the through hole 12 of the mounting plate 9 and engages with the end surface 15 of the breaker body 1 on the load side, the movement in the direction of removing the breaker body 1 from the main bar 6 is restricted, and the breaker body 1 is in a state of being mounted to the mounting plate 9."

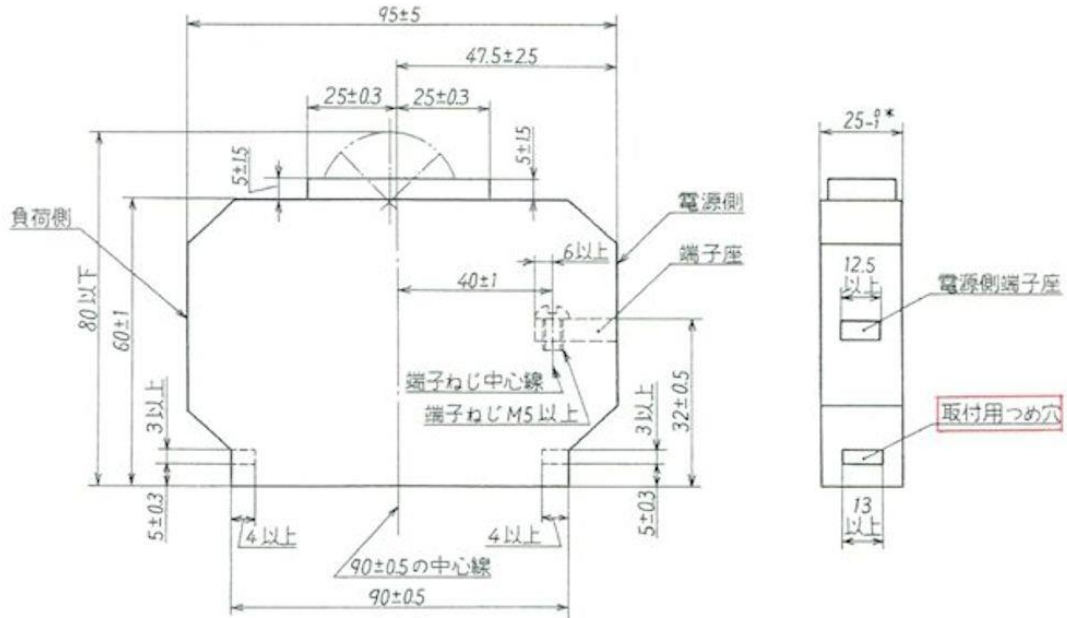
2. Evidence B

(1) Evidence B No. 3

A. Appendix 5, Fig. 1 on page 42 of Evidence B No. 3

附属書5図1 遮断器の寸法

単位 mm



附属書 5 図 1	Appendix 5, Fig. 1
遮断器の寸法	Circuit breaker dimension
単位	Unit
負荷側	Load side
以上	or more
以下	or less
90±0.5 の中心線	Centerline of 90±0.5
端子ねじ中心線	Terminal screw centerline
端子ねじ M5 以上	Terminal screw M5 and above
電源側	Power supply side
端子座	Terminal block
電源側端子座	Power supply side terminal block
取付用つめ穴	Claw hole for mounting

B. Fig. 1 in "A" shows an agreement type wire circuit breaker for electric light distribution boards. It can be seen that the power supply side of the circuit breaker has a terminal block, and the opposite side is the load side.

(2) Evidence B No. 5

On top of page 464 in Evidence B No. 5, it is described that "branch mounting base (for agreement type breaker)" and "when the mounting base, bar holder, and branching lead plate are used as a set according to the depth for the box in the abstract, the height relationship between the device and the bar is aligned."

From the above description, it is understood that the branch mounting base (for agreement type breaker) functions as a spacer to align the agreement type breaker with the height of the bar.

No. 6 Judgment of the body

1 <Reason 1 for invalidation>

(1) Comparison

A comparison is made between the present invention and the A1 invention.

The "connection terminal 16" of the A1 invention corresponds to the "plug-in terminal fitting" of the present invention.

Similarly, the "plug-in type branch switch 4 having a connection terminal 16 provided on a power supply side" corresponds to the "plug-in type circuit breaker having a plug-in terminal fitting provided on a power supply side",

the "conductive bar 3" corresponds to the "bus bar", and

the "operating strip 25b" corresponds to the "external knob".

The "mounting plate provided with the bus bar" in the present invention indicates that the bus bar is not provided directly to the mounting plate, but through another member, according to the description "11 and 12 are bus bars on the mounting plate" in [0008] and the description in [Fig. 1] of this specification. On the other hand, from the description of [Fig. 1] in "No. 5 1(1) J" above, since the conductive bar 3 of the A1 invention is provided on the base 2, it is easily conceivable for a person skilled in the art that the conductive bar 3 must be supported on the base 2 via some member.

In that case, the "base 2" of the A1 invention corresponds to the "mounting plate provided with the bus bar" in the present invention.

The "branch switch 4" in the A1 invention and the "circuit breaker" of the present invention are identical in function. In the A1 invention, the branch switch 4 is mounted to the base 2 via the mounting member 5, whereas in the present invention, the circuit breaker is mounted to the mounting plate.

In that case, the "mounting member 5 to which the branch switch 4 is mounted" in the A1 invention has in common with the "circuit breaker" in the present invention

insofar as it is a "member including a circuit breaker".

Because "the long hole 22 in the base 2" and "the locking claw 23 on the mounting member 5" in the A1 invention are fitted with each other, one can be called the "fitting portion" and the other the "fitted portion".

In that case, "the long hole 22 in the base 2 and the locking claw 23 on the mounting member 5 are fitted with each other" in the A1 invention and "the fitting portion and the fitted portion corresponding to the mounting plate and the circuit breaker are fitted with each other" in the present invention have "the fitting portion and the fitted portion corresponding to the mounting plate and the member including the circuit breaker are fitted with each other" in common.

The "lower surface of the side piece 5b of the mounting member 5" in the A1 invention is common to the "bottom surface of the circuit breaker" in the present invention insofar as it is a "bottom surface of the member including the circuit breaker".

In the A1 invention, "for mounting a plug-in type of branch switch 4 having a connection terminal 16 provided on a power supply side to a base 2 provided with a conductive bar 3 on a distribution board" corresponds to "for mounting a plug-in type of circuit breaker having a plug-in terminal fitting provided on a power supply side onto a mounting plate provided with a bus bar on a distribution board or the like" in the present invention.

The "leaf spring 25" in the A1 invention, together with "the locking hole 24 to which the leaf spring 25 is locked", regulates the movement in the direction of removing the branch switch 4 and the mounting member 5 from the conductive bar 3. On the other hand, the "lock lever" in the present invention, together with the "fitting portion of the lock lever," regulates the movement in the direction of removing the circuit breaker from the bus bar. In that case, "the leaf spring 25" and "the locking hole 24 to which the leaf spring 25 is locked" in the A1 invention correspond to "the lock lever" and "fitting portion of the lock lever" in the present invention, respectively, in that they have the function of regulating the movement in the direction of removing the member including the circuit breaker from the bus bar. Moreover, "the leaf spring 25 protrudes and is locked to the locking hole 24 in the base 2" in the A1 invention corresponds to "the lock lever protrudes and fits into the fitting portion of the mounting plate" in the present invention.

The present invention and the A1 invention are in correspondence in the following points.

"A mounting structure of a member including a circuit breaker, which is structure for mounting a plug-in type of circuit breaker having a plug-in terminal fitting on a power supply side onto a mounting plate provided with a bus bar on a distribution board or the like, wherein

a load side of the member including the circuit breaker, which is on a side opposite to the bus bar, is provided with a lock lever that can be selectively held by an external knob, depending on whether it is protruding from a bottom surface of the member including the circuit breaker,

the mounting plate is provided with a fitting portion of the lock lever,

when the member including the circuit breaker placed on the mounting plate is slid in a direction of the bus bar, the bus bar is plugged into the plug-in terminal fitting,

when the fitting portion and the fitted portion corresponding to the mounting plate and the member including the circuit breaker are fitted with each other, a vertical movement of the member including the circuit breaker with respect to the mounting plate is restricted, and

when the lock lever protrudes from the bottom surface of the member including the circuit breaker and fits into the fitting portion of the mounting plate, a movement of the member including the circuit breaker in a direction of removal the circuit the member including the circuit breaker from the bus bar is restricted, and the member including the circuit breaker is in a state of being mounted to the mounting plate."

The present invention differs from the A1 invention in the following points.

[Difference 1]

Concerning the "member including a circuit breaker",

the present invention describes the "circuit breaker",

whereas the A1 invention describes the "mounting member 5 to which the branch switch 4 is mounted".

[Difference 2]

Concerning the "fitting portion" and "fitted portion" provided to regulate the vertical movement of the circuit breaker with respect to the mounting plate,

the present invention describes "the fitting portion and the fitted portion provided for the mounting plate and the circuit breaker, respectively",

whereas the A1 invention describes "the long hole 22 and the locking claw 23 provided for the base 2 and the mounting member 5, respectively".

[Difference 3]

Concerning the "lock lever" provided for regulating the movement in the direction of removing the circuit breaker from the bus bar,

in the present invention the lock lever is to be provided for the "circuit breaker", the external knob involves "alternative and selective holding by an external knob depending on whether it is protruding from the bottom surface of the circuit breaker", and the regulation is made "by the lock lever protruding from the bottom surface of the circuit breaker and fitting into the fitting portion of the mounting plate",

whereas in the A1 invention, the leaf spring 25 (corresponding to "lock lever") is to be provided for the "mounting member 5", even though the operation piece 25b (corresponding to the "external knob") is "alternatively selected by an operation piece 25b depending on whether it is protruding from a lower surface of a side piece 5b of the mounting member 5," it is not "can be selectively held" as in the present invention, and the regulation is made "by a leaf spring 25 protruding from the lower surface of the side piece 5b of the mounting member 5 and being locked to the locking hole 24 in the base 2".

(2) Judgment regarding the differences

A. Regarding "Difference 1"

In the Evidence A No. 1, "Each branch switch 4 is mounted through a mounting member 5 provided below the branch switch 4. The mounting member 5 is mounted such that one end thereof is locked with a locking claw 6 of the base 2 and the other end thereof is fixed to the base with a screw 7. Both side surfaces of the branch switch 4 in the longitudinal direction (input/output terminal direction) are provided with hooking recesses 8. The mounting member 5 is provided with the hooking claws 9 on both ends thereof, and the branch switch 4 is mounted to the mounting member 5 by hooking the hooking claws 9 into the hooking recesses 8." (paragraph [0002] of "No. 5 1(1) C" above) is described as a conventional distribution board, and it is described that, in such a conventional distribution board, "the branch switch is plugged from a lateral direction, and the connection terminal is plugged into the conductive bar, and the hooking claws of the mounting member must lock into the hooking recesses at both ends of the branch switch. Moreover, there is a problem that the hooking claw 9 on the outer side becomes an obstacle and hinders the installation when plugged by sliding from the lateral

direction. Even when it is installed, there is a problem that the hooking claw 9 on the outer side easily comes out because of being an elastically deformable hooking claw 9a." (paragraph [0003], "must locked" in the description is a misnomer for "must be locked").

Furthermore, in the Evidence A No. 1, it is described that, in order to solve the above problem, it is considered that "to install the branch switch 4 to the mounting members 5 in advance and then fix each mounting member 5 to the base 2" (same paragraph [0003]) but there was "since the mounting member 5 is mounted by fastening the screw 7, it cannot be mounted on the base 2 while the branch switch 4 is in a state of being mounted" (same paragraph [0003]).

Therefore, in the Evidence A No. 1, "to provide a distribution board in which it is easy to mount a plug-in type branch switch and difficult to disconnect the branch switch after mounting" (paragraph [0004]) is described as the problem to be solved by the invention, and the mounting member 5 to which the branch switch 4 is mounted is specified to be mounted to the base 2 to achieve the effect of "the branch switch can be easily mounted by disposing the branch switch between the two hooking claws of the mounting member in the longitudinal direction and by locking the hooking claw into the hooking recess. In addition, since the hooking claw on the side opposite to the conductive bar 3 is substantially rigid, it becomes difficult to detach the branch switch after mounting it on the mounting member in a state where the connection terminal of each branch switch is plug-connected to the conductive bar." (paragraph [0017] of "No. 5 1(1) G").

From the above, it can be said that the A1 invention is based on the premise that the branch switch 4 is mounted to the base 2 via the mounting member 5, and is an invention to solve problems that arise based on this premise.

In addition, in the A1 invention, when "the mounting member 5 to which the branch switch 4 is mounted" is "slid in the direction of the conductive bar 3 and the conductive bar 3 is plugged into the connection terminal 16", it is obvious to a person skilled in the art that without the mounting member 5, the heights of the conductive bar 3 and the connection terminal 16 would not match each other and the conductive bar 3 would not be plugged into the connection terminal 16. In addition, when combined with the description "when the mounting base, bar holder, and branching lead plate are used as a set according to the depth for the box in the abstract, the height relationship between the device and the bar is aligned" (see "No. 5 2(2)" above) in the Evidence B No. 5, it can be said that the "mounting member 5" in the A1 invention also functions as a spacer for height adjustment.

In that case, the A1 invention assumes that the branch switch 4 is attached to the base via the mounting member 5 that functions as a spacer.

On the other hand, in the present invention, the circuit breaker is mounted to the mounting plate "the fitting portion and a fitted portion respectively corresponding to the mounting plate and the circuit breaker are fitted with each other" and does not provide anything that functions as a spacer.

Therefore, the "mounting member 5 to which the branch switch 4 is mounted" in the A1 invention does not correspond to the "circuit breaker" in the present invention. In addition, there is no motivation in the A1 invention to avoid intervening the mounting member 5 when mounting the branch switch 4 to the base 2.

Therefore, it cannot be said that the configuration of the present invention in relation to the Difference 1 could have been easily conceived by a person skilled in the art.

B. Regarding "Difference 2"

As described in "A", the "mounting member 5 to which the branch switch 4 is mounted" in the A1 invention does not correspond to the "circuit breaker" in the present invention, and there is no motivation in the A1 invention to avoid intervening the mounting member 5 when mounting the branch switch 4 to the base 2.

In that case, in the same manner as "A", the locking claw 23 on the mounting member 5 in the A1 invention cannot be called the fitting portion or the fitted portion on the circuit breaker in the present invention, and in the A1 invention, when the branch switch 4 is mounted to the base 2, the mounting member 5 is not intervened, and there is no motivation to provide the locking claw 23 in the mounting member 5 to the branch switch 4.

Therefore, it cannot be said that the configuration of the present invention in relation to the Difference 2 could have been easily conceived by a person skilled in the art.

C. Regarding "Difference 3"

(A) As described in "A", the "mounting member 5 to which the branch switch 4 is mounted" in the A1 invention does not correspond to the "circuit breaker" in the present invention, and there is no motivation in the A1 invention to avoid intervening the mounting member 5 when mounting the branch switch 4 to the base 2.

In that case, even if the invention described in the Evidence A No. 2 were applied to the A1 invention, it would not constitute a "circuit breaker" with a lock lever because

the "mounting member 5" with the leaf spring 25 in the A1 invention would be applied to the locking arm 12 in the invention described in the Evidence A No. 2.

(B) Further consideration is given to replace the leaf spring 25 in the A1 invention with the locking arm 12 in the invention described in the Evidence A No. 2.

a. Taking into consideration the description "the present invention relates to a distribution board, and particularly to a structure for mounting a branch switch" in "No. 5 1(1) A" above, it is easily conceivable to a person skilled in the art that the branch switch 4 in the A1 invention is to be mounted in the distribution board via the mounting member 5, and is large and heavy enough to be lifted by a worker with one hand. The A1 invention is technology related to a structure for mounting a branch switch, which is large and heavy enough to be lifted by a worker with one hand, on a distribution board as described above.

On the other hand, the invention described in the Evidence A No. 2 is not technology related to the structure for mounting the branch switch to the distribution board, but to pull out or plug the power supply unit 2 to the stand using the operating handle 1 (see above "No. 5 1(2) F" above). Therefore, it is understood that the size and weight of the breaker body are both larger and heavier than the branch switch 4 in the A1 invention. Upon considering the description in the invention described in the Evidence A No. 2 that "in a so-called stand-mounted withdrawable type power supply device, it is necessary to prevent the cut-off of the power supply to the load circuit caused by slipping out of the power supply unit in operation from the power supply stand because of vibration etc.", and, "However, in this type of locking where the locking arm (3b) is naturally dropped by its own weight, vibration may cause the locking arm (3b) to oscillate up and down and there is a risk of slipping out of the locking groove (5)." in "No. 5 1(2) C" above, the technology relates to a structure for anchoring a stand-mounted withdrawable power supply device to a stand, with the problems of preventing the power supply unit from being pulled out from the power supply stand due to vibration and preventing the locking arm from being pulled out.

In view of the above, the A1 invention and the Evidence A No. 2 differ in the objects to be mounted, as well as in their size and weight, and it cannot be said that the technical fields to which they belong are the same. Therefore, it cannot be said that the leaf spring 25 in the A1 invention can be replaced with the locking arm in the A2 invention.

b. The leaf spring 25 in the A1 invention and the locking arm 12 on the invention

described in the Evidence A No. 2 have in common that they prevent the movement of the member to which they are mounted.

However, taking into consideration that, in the Evidence A No. 1, "the leaf spring 25 also includes an operating strip 25b." (paragraph [0013] of "No. 5 1(1) E" above), and "when the branch switch 4 and the mounting member 5 are slid, the connection terminal 16 is plugged into the conductive bar 3 and electrically connected thereto. In this state, the locking claw 23 is located below the periphery of the long hole 22, and the periphery of the long hole 22 is sandwiched between the locking claw 23 and the side piece 5b. At this time, the tip 25a of the leaf spring 25 gets locked to the locking hole 24 to stop the movement of the mounting member 5. ... (omitted)... Moreover, the mounting member 5 can be removed together with the branch switch 4 by releasing the locking of the tip 25a of the leaf spring 25 and sliding it in a reverse direction of that mentioned direction." (paragraph [0014]), it is clear that leaf spring 25 in the A1 invention is a "leaf spring" whose tip 25a is locked to the locking hole 24 without operating the operating piece 25b when the branch switch 4 and the mounting member 5 are slid together, and when the mounting member 5 is removed, the operating piece 25b must be lifted and slid in the opposite direction.

Consequently, in the A1 invention, by simply sliding, the tip 25a of the leaf spring 25 is locked to the locking hole 24 to stop the mounting member 5 from moving.

On the other hand, the locking arm 12 in the invention described in the Evidence A No. 2 can be set to either the anchoring position or the anchoring release position by operating the operating handle 11 and is held in both the anchoring position and the anchoring release position (see "No. 5 1(2) F). Either position is maintained without the continued application of external force.

Thus, it can be said that the "leaf spring 25" in the A1 Invention is significantly different from the "locking arm 12" in the invention described in the Evidence A No. 2 in terms of shape and form of operation. It is not simply possible to replace the "leaf spring 25" in the A1 Invention with the structure of the "locking arm 12" in the invention described in the Evidence A No. 2.

Moreover, suppose that the leaf spring 25 in the A1 Invention can be selectively held by the operation piece 25b to protrude or not protrude from the lower surface of the side piece 5b of the mounting member 5, when "the mounting member 5 to which the branch switch 4 is mounted" is slid, the effect that the tip 25a of the leaf spring 25 is locked to the locking hole 24 just by sliding as described above to stop the mounting member 5 from moving is no longer exhibited.

Then, there is a disincentive to apply the "locking arm 12" in the invention

described in the Evidence A No. 2 to the "leaf spring 25" in the A1 Invention to hold it in the anchoring position and the anchoring release position, so that it can be "selectively protruded or not protruded by an external knob."

c. As mentioned above, there is no motivation to replace the "leaf spring 25" in the A1 Invention with the "locking arm 12" in the invention described in the Evidence A No. 2.

(C) Based on the above, it cannot be said that the configuration of the present invention in relation to the Difference 3 could have been easily conceived by a person skilled in the art.

(D) Regarding the demandant's allegation

(a) The demandant states that "the 'mounting member 5 to which the branch switch 4 is mounted' in the A1 Invention is what can be called a 'circuit breaker' with some parts interchangeable. In the Difference 2, the only difference is whether the 'fitting portion' for restricting the vertical movement to the mounting plate is provided in the housing of the circuit breaker or in a member (mounting member 5) separate from the housing. In both the configurations, the effect of providing the fitting portion on the circuit breaker is the same. Thus, the configuration according to the Difference 2 is merely a design feature or is easily imaginable." (lines 3 to 10 on page 4 of the Oral Proceeding Statement Brief).

In brief, the demandant alleges that "the mounting member 5 to which the branch switch 4 is mounted" can be regarded as a "circuit breaker" with some parts interchangeable, and whether the "fitting portion" is provided in the housing of the circuit breaker or in a member (mounting member 5) separate from the housing is a mere design feature or is easily imaginable.

However, as described in "a" above, the A1 Invention is based on the premise that the branch switch 4 is mounted to the base 2 via the mounting member 5, and is designed to solve the problems that arise under this premise, and furthermore, the mounting member 5 functions as a spacer. Therefore, it cannot be considered as a part of the circuit breaker, and there is also no motivation to directly provide the locking claw 23 provided on the mounting member 5 directly on the branch switch 4 without the mounting member 5 when mounting the branch switch 4 on the base 2.

Therefore, the demandant's allegation described above is groundless.

(b) The demandant states that "Both the A1 Invention and the invention described in the

Evidence A No. 2 have in common that they relate to the technical field in which a plug connector on a device is connected to a power supply by sliding the device. Furthermore, both the inventions share a feature that the member protrudes from the bottom surface of the device to prevent the device from sliding in a direction that would cause the plug connector to be disconnected. In other words, both the inventions share the same technical field as well as the same problem. Therefore, no disincentive exists in applying the invention described in the Evidence A No. 2 to the A1 Invention." (lines 10 to 17 on page 11 of the Oral Proceeding Statement Brief).

In brief, both the A1 Invention and the invention described in the Evidence A No. 2 share the same technical field as well as the same problem, and no disincentive exists in applying the invention described in the Evidence A No. 2 to the A1 Invention.

However, as described in "C (B) a" above, the technical fields of the A1 Invention and the invention described in the Evidence A No. 2 cannot be said to be the same. And, as described in "C (B) b" above, the point that the invention described in the Evidence A No. 2 can be applied to in the A1 Invention, where the external knob involves "alternative and selective holding by an external knob of the lock lever depending on whether it is protruding or not protruding" from the bottom surface of the circuit breaker, can be said as a disincentive since the function of the A1 Invention that the tip 25a of the leaf spring 25 is locked to the locking hole 24 by simply sliding to stop the mounting member 5 from moving when sliding the "mounting member 5 to which the branch switch 4 is mounted" is not exhibited.

Therefore, the demandant's allegation described above is groundless.

E Summary

Therefore, it cannot be said that the present invention could have been easily invented by a person skilled in the art based on the A1 Invention and the invention described in the Evidence A No. 2.

Therefore, the reason 1 for invalidation is groundless.

2. Reason 2 for invalidation

(1) Comparison

Comparing the present invention with the A3 Invention.

The "plug-in terminal fitting 7" in the A3 Invention corresponds to the "plug-in terminal fitting" in the present invention.

Similarly, the "breaker body 1 of a plug-in breaker" corresponds to the "plug-in type circuit breaker", the "main bar 6" corresponds to the "bus bar", and the "upward"

corresponds to "vertical direction".

According to the description of aforementioned [Fig. 7] in "No. 5 1(3) I", the main bar 6 formed in three stages at upper and lower sides is disposed above the mounting plate 9. It is evident to a person skilled in the art that the main bar 6 should be supported by the mounting plate 9 by some means, and therefore, the mounting plate 9 in the A3 Invention can be called "the mounting plate 9 provided with the main bar 6".

In that case, the "mounting plate 9" in the A3 Invention corresponds to the "mounting plate provided with the bus bar" in the present invention.

In the A3 Invention, since the "regulatory fitting 10 with a bent tip provided on the mounting plate 9" and the "notched grooves 8 provided in the breaker body 1 and formed as recessed grooves" are fitted with each other, one can be called a "fitting portion" and the other a "fitted portion".

Then, the "regulatory fitting 10 with a bent tip provided on the mounting plate 9 and the notched grooves 8 in the breaker body 1 and formed as recessed grooves are fitted with each other" in the A3 Invention corresponds to the "fitting of the fitting portion and the fitted portion corresponding to the mounting plate and the circuit breaker" in the present invention.

The present invention and the A3 Invention are in correspondence in the following points.

"A mounting structure of a circuit breaker, which is structure for mounting a plug-in type circuit breaker having a plug-in terminal fitting on a power supply side onto a mounting plate provided with a bus bar on a distribution board or the like, wherein

when the circuit breaker placed on the mounting plate is slid in a direction of the bus bar, the bus bar is plugged into the plug-in terminal fitting,

when the fitting portion and a fitted portion respectively corresponding to the mounting plate and the circuit breaker are fitted with each other, a vertical movement of the circuit breaker with respect to the mounting plate is restricted, and

a movement of the circuit breaker in a direction of removing the circuit breaker from the bus bar is restricted, and the circuit breaker is in a state of being mounted to the mounting plate."

The present invention differs from the A3 Invention in the following points.

[Difference 4]

With respect to the configuration for regulating the movement in the direction of removing the circuit breaker from the bus bar,

in the present invention, "a load side of the circuit breaker, which is on a side opposite to the bus bar, is provided with a lock lever that can be selectively held by an external knob, depending on whether it is protruding from a bottom surface of the circuit breaker, the mounting plate is provided with a fitting portion of the lock lever", the structure is regulated "by the lock lever protrudes from the bottom surface of the circuit breaker and fits into the fitting portion of the mounting plate", whereas,

the A3 Invention does not have such a configuration, and "the back surface of the mounting plate 9 is provided with the retaining fitting 11 with the protruding piece 13 that protrudes upward or not protrude from the through hole 12 of the mounting plate 9, and the end surface 15 of the breaker body 1 on the load side is fitted to the protruding piece 13 of the retaining fitting 11", and the regulation is made by "the protruding piece 13 of the retaining fitting 11 protruding from the through hole 12 of the mounting plate 9 and engaging the end surface 15 of the breaker body 1 on the load side."

(2) Judgment regarding the differences

A. A further consideration is given to the replacement of the retaining fitting 11 in the A3 Invention with the locking arm 12 in the invention described in the Evidence A No. 2.

(a) In view of the description in, "No. 5 1(3) B" that " relates to a plug-in breaker mounting mechanism used to mount a plug-in breaker including a plug-in terminal fitting to a mounting plate of a distribution board", the breaker body 1 in the A3 Invention is to be mounted in a distribution board, and it is evident for a person skilled in the art that the body is large and heavy enough to be lifted by a worker with one hand. The A3 Invention is technology related to a structure for mounting a breaker body, which is large and heavy enough to be lifted by a worker with one hand, on a distribution board as described above.

On the other hand, the invention described in the Evidence A No. 2 is not technology related to a structure for mounting the breaker body to a distribution board, but to pulling out or plugging the power supply unit 2 to the stand using the operating handle 1 (see above "No. 5 1(2) F" above). Therefore, it is understood that the size and weight of the breaker body are both larger and heavier than the breaker body 1 in the A3 Invention. Upon considering the description in the invention described in the Evidence A No. 2 that "in a so-called stand-mounted withdrawable type power supply device, it is necessary to prevent the cut-off of the power supply to the load circuit caused by

slipping out of the power supply unit in operation from the power supply stand because of vibration etc.", and, "However, in this type of locking where the locking arm (3b) is naturally dropped by its own weight, vibration may cause the locking arm (3b) to oscillate up and down and there is a risk of slipping out of the locking groove (5)." in "No. 5 1(2) C" above, the technology relates to a structure for anchoring a stand-mounted withdrawable power supply device to a stand, with the problems of preventing the power supply unit from being pulled out from the power supply stand due to vibration and preventing the locking arm from being pulled out.

As mentioned above, the A3 Invention and the invention described the Evidence A No. 2 differ in the mounting objects, as well as in their size and weight, and it cannot be said that the technical fields to which they belong are the same, and therefore it cannot be said that the plate spring 25 in the invention in A3 Invention can be replaced with the locking arm in the A2 invention.

(b) The protruding piece 13 of the retaining fitting 11 in the A3 Invention and the locking arm 12 in the invention described in the Evidence A No. 2 have in common that they prevent the movement of the member to which they are mounted.

However, the Evidence A No. 3 states that, "A back surface of the mounting plate 9 includes a metal retaining fitting 11 with excellent elasticity." (paragraph [0013] of No. 5 1(3) F above), "To mount the plug-in breaker to the mounting plate 9 using the mounting mechanism of the present invention, the breaker body 1 is slid linearly such that the bottom of the breaker body 1 does not lift off the mounting plate 9 with the recessed groove of the breaker body 1 in contact with the regulatory fitting 10 as shown in Fig. 4. At this time, since the breaker body 1 is allowed to move linearly by the action of the regulatory fitting 10, the plug-in terminal fitting 7 on the end surface of the power supply side moves linearly in the direction of the main bar 6 and engages with the main bar 6. Furthermore, at this time, the retaining fitting 11 elastically bends downward and the protruding piece 13 is in the state shown in Fig. 4." (paragraph [0014]), and "When the breaker body 1 is moved to a predetermined position (position where the plug-in terminal fitting 7 engages with the main bar 6) in this manner, the retaining fitting 11, which has previously bent downward, returns upward as shown in Fig. 7, and the protruding piece 13 engages with the end surface 15 of the breaker body 1 on the load side. As a result, the breaker body 1 can no longer move toward the right in the figure and is fixed on the mounting plate 9. Furthermore, to remove the breaker body 1 from the mounting plate 9, as shown in Fig. 7, a screwdriver or other tool is plugged through the other through-hole 16 of the mounting plate 9 and the breaker body 1 is slid to the

right while bending the retaining fitting downward." (paragraph [0015]), the protruding piece 13 of the retaining fitting 11 in the A3 Invention is a protruding piece 13 of the retaining fitting 11 having "elasticity" in that when the breaker body 1 is slid, the protruding piece 13 is fitted to the end surface 15 of the breaker body 1 on the load side without operating the retaining fitting 11, and when the breaker body 1 is removed, the retaining fitting 11 must be slid in the opposite direction while being bent downward with a screwdriver.

The A3 Invention has the effect of fitting the protruding piece 13 of the retaining fitting 11 with the end surface 15 of the breaker body 1 on the load side and fixing the breaker body 1 on the mounting plate 9 exhibited by simply sliding the breaker body 1 with its recessed groove in contact with the regulatory fitting 10 and using the elasticity of the retaining fitting 11.

On the other hand, the locking arm 12 in the invention described in the Evidence A No. 2 can be set to either the anchoring position or the anchoring release position by operating the operating handle 11 and is held in both the anchoring position and the anchoring release position (see "No. 5 1(2) F). Either position is maintained without the continued application of external force.

Thus, it can be said that the "protruding piece 13" of the retaining fitting 11 in the A3 Invention and the "locking arm 12" in the invention described in the Evidence A No. 2 have significantly different shapes and forms of operation. And it is not possible to simply replace the "protruding piece 13" of the retaining fitting 11 in the A3 Invention with the structure of the "locking arm 12" in the invention described in the Evidence A No. 2.

If the protruding piece 13 of the retaining fitting 11 in the A3 Invention is "alternative and selective holding depending on protruding or not protruding by an external knob", the breaker body 1 would not be fixed simply by sliding, and after sliding, the protruding piece 12 of the retaining fitting 11 is not fixed until a non-protruding state changes to a protruding state. Therefore, as described above, with the recessed groove of the breaker body 1 in contact with the regulatory fitting 10, simply sliding cannot exhibit the effect of fitting the protruding piece 13 of the retaining fitting 11 with the end surface 15 of the breaker body 1 on the load side and fixing the breaker body 1 on the mounting plate 9.

Then, there is a disincentive in applying the "locking arm 12" in the invention described in the Evidence A No. 2 to the protruding piece 13 of the retaining fitting 11 in the A3 Invention to hold it in the anchoring position and the anchoring release position, and in "alternative and selective holding depending on protruding or not

protruding by an external knob".

(c) As mentioned above, there is no motivation to replace the "retaining fitting 11" in the A3 Invention with the "locking arm 12" in the invention described in the Evidence A No. 2.

B. In the A3 Invention, there is no description or suggestion in the Evidence A No. 3 or the Evidence A No. 2 that the retaining fitting 11 is provided on the breaker body 1, not on the back surface of the mounting plate 9. Therefore, there is no motivation to provide the lock lever on "the load side of the circuit breaker opposite to the bus bar" in the A3 Invention.

C. Based on the above, it cannot be said that the configuration of the present invention in relation to the Difference 4 could have been easily conceived by a person skilled in the art.

(3) Demandant's allegation

The demandant states that "Therefore, based on the configuration in the configuration b3 where the protruding piece 13 is provided on the breaker body 1 side, the protruding state of the protruding piece 13 can be alternatively selected and 'held' as shown in the configuration b2-2, and accordingly, the configuration B could have been easily achieved by a person skilled in the art in consideration of the Evidence A No. 3 and No. 2 at the time of filing the present application." (page 24, line 22 to page 25, line 2 in the Demand for Invalidation Trial), "It would have been easy for a person skilled in the art to alternatively select and hold the protrusion or non-protrusion of the member for restricting the movement in the direction of removing the circuit breaker, and to provide an external knob for operating the member, by applying the invention described in the Evidence A No. 2 to the A3 Invention." (lines 1 to 4 on page 10 in the Oral Proceeding Statement Brief), and "As described in 5-3-1, the A3 Invention and the invention described in the Evidence A No. 2 share not only the same technical field but also the same problem. Therefore, no disincentive exists in applying the invention described in the Evidence A No. 2 to the A3 Invention. (lines 10 to 13 on page 13 in the Oral Proceeding Statement Brief).

To sum up, the A3 Invention and the invention described in the Evidence A No. 2 share the same technical field and problems, and that it was easy for a person skilled in the art to alternatively select and hold the protruding state of the protruding piece 13 in

the A3 Invention by applying the invention described in the Evidence A No. 2.

However, as described in "(2) A (a)" above, the technical fields of the A3 Invention and the invention described in the Evidence A No. 2 cannot be said to be the same. In addition, in the A3 Invention, when the protruding piece 13 of the retaining fitting 11 can be alternatively selected and "held", as described in "(2) A (a)" above, it can be said there is a disincentive since the effect in the A3 Invention of fitting the protruding piece 13 of the retaining fitting 11 with the end surface 15 of the breaker body 1 on the load side and fixing the breaker body 1 on the mounting plate 9 simply by sliding with the recessed groove of the breaker body 1 in contact with the regulatory fitting 10 is not exhibited.

Therefore, the demandant's allegation described above is groundless.

(4) Therefore, it cannot be said that the present invention could have been easily invented by a person skilled in the art based on the A3 Invention and the invention described in the Evidence A No. 2.

Therefore, the reason 2 for invalidation is groundless.

3. Reason 3 for Invalidation

In the reason 3 for invalidation alleged by the demandant, the present invention is based on the fact that the claw portion and the recess in the example are a "fitting portion" and a "fitted portion," respectively, by specifying a configuration in which "the vertical movement of the circuit breaker with respect to the mounting plate is regulated by the fitting portion and the fitted portion provided for the mounting plate and the circuit breaker fitting each other" (hereinafter referred to as "configuration requirement A"), a configuration with the claw portion on the mounting plate and the recess on the circuit breaker, and a configuration with the claw portion on the circuit breaker and the recess on the mounting plate are included. But the latter configuration is not described in any of the specifications and drawings originally attached to the applications of the first to fourth generation parent applications and the original application (see the Evidence A No. 5 to No. 9). Therefore, the requirements for filing a divisional application are not met. Therefore, the application date of the present patent should be moved back to June 3, 2014, and since the present invention is the invention described in the Evidence A No. 4 (the published gazette of the first generation parent application), the patent is not granted under Article 29(1) of the Patent Law. Moreover, since the present invention could have been easily made by a person skilled in the art based on the invention described in the Evidence A No. 4, it violates the provisions of Article

29(2) of the Patent Law. The present patent falls under the Article 123(1)(ii) of the Patent Law and should be invalidated.

(1) Divisional requirements for the application according to the patent

A. Divisional requirements for the application according to the patent to the original application

At first, the divisional requirements of the application according to the patent with respect to the original application will be examined.

In order for the application according to the patent to be deemed to have been filed at the time of the filing of the original application, Japanese Patent Application No. 2013-215045, matters described in the specification, claims and drawings of the application according to the patent are the same as those described in the specification, scope of claims and drawings of the original application (hereinafter referred to as the "initial specification of the original application"). In other words, it must not introduce any new technical matter in relation to the matters derived from the integration of all the statements in the initial specification and other documents of the original application.

(A) Matters described in the initial specification of the original application

The initial specification of the original application (see the Evidence A No. 9) has the following description.

a. "[Claim 1]

A mounting structure of a circuit breaker, which is structure for mounting a plug-in type circuit breaker having a plug-in terminal fitting on a power supply side onto a mounting plate provided with a bus bar on a distribution board or the like, wherein

a load side of the circuit breaker is provided with a wire insertion hole into which an electric wire can be inserted from diagonally above, and a lock lever which can be alternatively selected and held by an external knob depending on whether it is protruding or not protruding from a bottom surface of the circuit breaker, at a position lower than the wire insertion hole,

the mounting plate is provided with a hole with which the lock lever fits,

when the circuit breaker placed on the mounting plate is slid in a direction of the bus bar, the bus bar is plugged into the plug-in terminal fitting,

when a claw portion on the mounting plate is fitted with a recess on the circuit breaker corresponding to the claw portion, a vertical movement of the circuit breaker with respect to the mounting plate and a lateral movement are restricted,

when the lock lever protrudes from the bottom surface of the circuit breaker and fits into the hole in the mounting plate, a movement in a direction of removing the circuit breaker from the bus bar is restricted, and the circuit breaker is mounted to the mounting plate,

on the other hand, when a finger-catch portion of the lock lever is pulled up in a direction opposite to the mounting plate to release the fitting between the hole and the lock lever, and then the circuit breaker is moved so as to pull it out in the direction opposite to the bus bar, the fitting between the claw portion and the circuit breaker is released and the circuit breaker can be removed from the mounting plate."

b. [0001]

The present invention relates to a structure for mounting a circuit breaker onto a mounting plate of a distribution board.

[Background Technology]

[0002]

Fig. 6 shows an example of a conventional circuit breaker 61 mounted on a mounting plate 62 of a distribution board. In this mounting structure, at first, a recess 63 of the circuit breaker 61 on a power supply side is fitted into a protrusion portion 64 of a mounting plate 62 with the circuit breaker 61 at an angle with respect to the mounting plate 62. Then, the circuit breaker 61 is placed in close contact with the mounting plate 62, a recess 65 of the circuit breaker 61 on a load side is fitted into a protrusion portion 66 having elasticity also mounted to the mounting plate, and a power supply side terminal and a bus bar are tightened and connected using screws.

[Disclosure of Invention]

[Problem to be solved]

[0003]

However, a plug-in type circuit breaker shown in Fig. 1 has a plug-in terminal provided on the power supply side to make connection without screws to the bus bar on the mounting plate, and it is necessary to place the circuit breaker on the mounting plate and then slide it from the load side toward the bus bar such that the bus bar is plugged inserted into the plug-in terminal fitting. Therefore, when the circuit breaker is disposed on the mounting plate with the mounting method shown in Fig. 6, the bottom surface of the circuit breaker interfered with a protruding piece 66, and the circuit breaker cannot be mounted on the mounting plate. When removing the circuit breaker, it is necessary to press down on the end of the protruding piece 66 with a tool such as a screwdriver simultaneously. Furthermore, because the protruding piece 66 protrudes from a side

surface of the circuit breaker the load side, the tip of the protruding piece 66 may damage the wire sheath when the wire is routed in the distribution board.

[0004]

The present invention is made to solve the conventional problems described above and an object thereof is to provide a mounting structure that can facilitate mounting even for a circuit breaker such as a plug-in type, does not damage the wire, and does not require a tool for removal.

[Means to solve the problems]

...(Omitted)...

[Effects of the Invention]

[0006]

As described above, the present invention provides a mounting structure that can be facilitate mounting even for a circuit breaker such as plug-in type, does not damage the wire, and does not require a tool for removal.

[Best Mode for Carrying Out the Invention]

[0007]

An example of the present invention is described in detail below using the drawings. Figs. 1 to 3 show examples of a circuit breaker mounting structure according to the present invention.

[0008]

In Figs. 1 to 3, 1 is a circuit breaker with a plug-in type terminal on the power supply side, 2 is a mounting plate on a distribution board, 3 and 4 are claw portions a and b provided on the mounting plate to restrict the movement of the circuit breaker 1 in the vertical direction to the mounting plate, 5 and 6 are recesses a and b provided on the circuit breaker side corresponding to the claw portions, 7 is a lock lever provided on the circuit breaker side that restricts a movement in the direction of removing the circuit breaker from the mounting plate, 8 is a fitting portion on the mounting plate side that fits with the lock lever 7, and 9 and 10 are protruding pieces a and b that regulate the side surfaces of the circuit breaker. Further, 11 and 12 are bus bars on the mounting plate, 13 and 14 are plug-in terminal portions, and 15 and 16 are plug-in terminal fittings. The claw portion a 3 and the claw portion b 4 extend from the power supply side toward the load side (open), and the recess a 5 and the recess b 6 are open toward the power supply side. Accordingly, when the circuit breaker 1 is placed on the mounting plate 2 and slid in the direction of the bus bar, the claw portion a 3 and the recess a 5, and the claw portion b 4 and the recess b of 6 are in contact with each other to restrict the movement in the vertical direction with respect to the mounting plate.

...(Omitted)...

[0011]

The following describes a case in which a circuit breaker is mounted on a mounting plate by means of a mounting structure configured in this way. First, in Fig. 1, the locking portion 703 of the lock lever 7 of the circuit breaker 1 is in a state of not protruding from the bottom surface of the circuit breaker, and the circuit breaker is placed on the mounting plate such that the circuit breaker is between the protruding pieces a9 and b10 of the mounting plate, and the claw portion b 4 is in the opening of the recess b 6 of the circuit breaker. At this point, the claw portions 3 and 4 and the recesses 5 and 6 of the circuit breaker are not fitted with each other. Then, when the circuit breaker 1 is slid in the direction of the bus bars 11 and 12, and the bus bars 11 and 12 are plugged into the plug-in terminal fittings 15 and 16, and the claw portions 3 and 4 on the mounting plate are fitted with the recesses 5 and 6 on the circuit breaker, respectively.

[0012]

As described above, the movement of the circuit breaker in the upward direction (vertical direction to the mounting plate) and the lateral direction as shown in Fig. 1 are restricted, but in this state, the circuit breaker can be removed in the direction far from the bus bars 11 and 12 (toward the load side of the circuit breaker).

[0013]

Then, when the finger-catch portion 702 of the lock lever 7 is pressed toward the mounting plate with a finger, the locking portion 703 protrudes from the bottom surface of the circuit breaker and fits into the fitting portion 8 of the mounting plate. This allows the movement in the direction of removing the circuit breaker from the bus bar to be regulated, and the circuit breaker 1 is in a state of being mounted to the mounting plate 2.

[0014]

The following explains a case in which the circuit breaker 1 is removed from the mounting plate 2. First, the finger-catch portion 702 of the lock lever 7 is pulled up with a finger in the direction opposite the mounting plate to release the fitting between the fitting portion 8 and the locking portion 703 of the lock lever 7. Then, by moving the circuit breaker 1 so as to pull it out in the direction opposite to the bus bars 11 and 12, the fitting of the claw portions 3 and 4 with the recesses 5 and 6 are released. In this state, the circuit breaker 1 can be removed from the mounting plate 2 by lifting it from the mounting plate.

[0015]

As explained above, in order to mount the plug-in type circuit breaker 1 to the mounting plate 2 provided on the distribution board, the mounting plate 2 is provided with the claw portions 3 and 4 that restrict the movement in the vertical direction with respect to the mounting plate 2, and the circuit breaker 1 is provided with the recesses 5 and 6 that correspond to the claw portions 3 and 4, respectively; the circuit breaker 1 is provided with the lock lever 7 that restricts the movement in the direction of removing the circuit breaker 1 from the bus bars 11 and 12 on the mounting plate 2, and the mounting plate 2 is provided with the fitting portion 8 to which the lock lever 7 fits. Since the protruding piece 9 and the protruding piece 10, which regulate the position of the side surface of the circuit breaker, are provided on the mounting plate 2, the plug-in type circuit breaker can be mounted while sliding it parallel to the mounting plate, and even when wires are being routed in the distribution board, there is no risk of damaging the wire sheath because the finger-catch portion of the lock lever 7 protrudes only slightly from the side surface of the circuit breaker on the load side. It is possible to provide a mounting structure that does not require the use of a tool to remove the circuit breaker, nor the need to carry a tool.

[0016]

In the example, the circuit breaker is provided with the protruding piece 9 and 10 to restrict the position of the side surfaces of the circuit breaker, but this can be eliminated by setting the width of the claw portions 3 and 4 and the recesses 5 and 6 appropriately. The fitting portion 8 is formed by bending the end portion of the mounting plate 2 in the example described above, but can also be a hole commensurate with the size of the locking portion 703, and the dimensional relationship of the hole and the fitting portion can make the protruding pieces 9 and 10 unnecessary. These can be changed as needed within the scope of the claims of the present invention."

(B) Judgment of the body

a. The original specification of the original application states that "A plug-in type circuit breaker is ... (omitted) ... it is necessary to place the circuit breaker on the mounting plate and then slide it from the load side toward the bus bar such that the bus bar is plugged inserted into the plug-in terminal fitting. Therefore, when the circuit breaker is disposed on the mounting plate with the mounting method shown in Fig. 6, the bottom surface of the circuit breaker interfered with a protruding piece 66, and the circuit breaker cannot be mounted on the mounting plate. When removing the circuit breaker, it is necessary to press down on the end of the protruding piece 66 with a tool such as a screwdriver simultaneously. Furthermore, because the protruding piece 66

protrudes from a side surface of the circuit breaker the load side, the tip of the protruding piece 66 may damage the wire sheath when the wire is routed in the distribution board." (paragraph [0003] of "(A) b" above) as the problem to be solved, and that "an object thereof is to provide a mounting structure that can facilitate mounting even for a circuit breaker such as a plug-in type, does not damage the wire, and does not require a tool for removal." (paragraph [0004]).

In order to solve the above problem, the initial specification of the original application describes that "the mounting plate 2 is provided with the claw portions 3 and 4 that restrict the movement in the vertical direction with respect to the mounting plate 2, and the circuit breaker 1 is provided with the recesses 5 and 6 that correspond to the claw portions 3 and 4, respectively; the circuit breaker 1 is provided with the lock lever 7 that restricts the movement in the direction of removing the circuit breaker 1 from the bus bars 11 and 12 on the mounting plate 2, and the mounting plate 2 is provided with the fitting portion 8 to which the lock lever 7 fits." (paragraph [0015]).

Accordingly, the following effects are exhibited: "when the circuit breaker 1 is slid in the direction of the bus bars 11 and 12, and the bus bars 11 and 12 are plugged into the plug-in terminal fittings 15 and 16, and the claw portions 3 and 4 on the mounting plate are fitted with the recesses 5 and 6 on the circuit breaker, respectively." (paragraph [0011]); "the movement of the circuit breaker in the upward direction (vertical direction to the mounting plate) and the lateral direction as shown in Fig. 1 are restricted." (paragraph [0012]); "Then, when the finger-catch portion 702 of the lock lever 7 is pressed toward the mounting plate with a finger, the locking portion 703 protrudes from the bottom surface of the circuit breaker and fits into the fitting portion 8 of the mounting plate. This allows the movement in the direction of removing the circuit breaker from the bus bar to be regulated, and the circuit breaker 1 is in a state of being mounted to the mounting plate 2." (paragraph [0013]); and further, "the finger-catch portion 702 of the lock lever 7 is pulled up with a finger in the direction opposite the mounting plate to release the fitting between the fitting portion 8 and the locking portion 703 of the lock lever 7. Then, by moving the circuit breaker 1 so as to pull it out in the direction opposite to the bus bars 11 and 12, the fitting of the claw portions 3 and 4 with the recesses 5 and 6 are released. In this state, the circuit breaker 1 can be removed from the mounting plate 2 by lifting it from the mounting plate." (paragraph [0014]).

It is also stated that the following effect is obtained "the plug-in type of circuit breaker can be mounted while sliding it parallel to the mounting plate, and even when wires are being routed in the distribution board, there is no risk of damaging the wire

sheath because the finger-catch portion of the lock lever 7 protrudes only slightly from the side surface of the circuit breaker on the load side. It is possible to provide a mounting structure that does not require the use of a tool to remove the circuit breaker, nor the need to carry a tool." (paragraph [0015])

According to the above description in the initial specification of the original application, the bottom surface of the circuit breaker interferes with the protruding piece 66 of the mounting plate 62 when the circuit breaker is disposed, which occurs in the conventional plug-in type of circuit breaker. When removing the circuit breaker, it is necessary to press down on the end of the protruding piece 66 using a tool such as a screwdriver. The tip of the protruding piece 66 may also damage the wire sheath.

In cope with this problem, by sliding the circuit breaker 1 parallel to the mounting plate 2, the claw portions 3 and 4 on the mounting plate 2 are fitted into the recesses 5 and 6 on the circuit breaker 1, and the vertical movement of the circuit breaker 1 with respect to the mounting plate 2 is regulated, and the lock lever 7 is pressed to protrude the locking portion 703, thereby regulating the movement in the direction of removing the circuit breaker 1 from the bus bars 11 and 12, which is recognized as a means of solving the problem.

Here, the configuration for regulating the vertical movement of the circuit breaker 1 with respect to the mounting plate 2 is specifically shown by the claw portions 3 and 4 provided on the mounting plate 2 and the recesses 5 and 6 provided on the circuit breaker 1. However, in relation to the above problem, it can be understood that it is sufficient if a fitting is formed between the circuit breaker 1 and the mounting plate 2 when the circuit breaker 1 is slid parallel to the mounting plate 2.

In addition, whether the mounting plate 2 or the circuit breaker 1 has a claw portion or a recess, as well as the specific manner of fitting, is not directly related to the solution of the above problem.

Therefore, the aforementioned configuration requirement A in the present invention does not introduce any new technical matter in relation to the initial specification of the original application, and is within the scope of the matters described in the initial specification of the original application.

b. Demandant's allegation

The demandant alleges that the form of the claw portion on the circuit breaker and the recess on the mounting plate, and the form other than "claw portion" and "recess" as

the fitting portion and the fitted portion are not described in the initial specification of the original application (Page 27, lines 15 to 19 of the Demand for Invalidation Trial in this case, and page 16, line 24 to page 17 line 1 of the Oral Proceeding Statement Brief).

However, it is easily understood by a person skilled in the art that the problems of the invention described in the initial specification of the original application can be solved and the same effects can be obtained even if the claw portion is provided on the circuit breaker and the recess is provided on the mounting plate, or if the fitting portion and the fitted portion are other than the claw portion and the recess.

In this case, even when no disclosure in the initial specification of the original application of the form in which the claw portion is provided on the circuit breaker and the recessed is provided on the mounting plate, or of any form other than "claw portion" and "recess" as the fitting portion and the fitted portion is made, it cannot be said that the present invention introduces new technical matters in relation to the initial specification of the original application.

Therefore, the demandant's allegation is groundless.

c. Summary

As described above, the aforementioned configuration requirement A of the present invention is within the scope of the matters described in the initial specification of the original application, and no other reason is found for the violation of the divisional requirement, so the application according to the patent meets the divisional requirement for the original application.

(b) The divisional requirement of the application according to the patent to the first to fourth generation parent applications

The specifications or drawings originally attached to the application of each of the first to fourth generation parent applications (see the Evidence A No. 5 to No. 8) also state the same matters as those stated in the original specification, etc. of the original application, which are summarized in the above "A. (A) b". Therefore, for the same reason as discussed in "A. (b)" above, the application according to the patent satisfies the divisional requirement for any of the parent applications of the first to fourth generation parent applications.

(c) Divisional requirements for the second to fourth generation parent and original applications

No reason is found for the second to fourth generation parent and original applications to be in violation of the divisional requirement.

(2) Filing date of the application according to the patent

Because of the above, the application according to the patent is deemed to have been filed on November 8, 2000, i.e., the time of filing of the first generation parent application.

(3) Article 29(1)(iii) (novelty) and Article 29(2) (Inventive step) of the Patent Law

The publication date of the Evidence A No. 4 is May 24, 2002, and it cannot be said to be a publication distributed before the filing date (November 8, 2000) of the application according to the patent. Therefore, the reason for the violation of Article 29(1)(iii) and 29(2) of the Patent Law based on the Evidence A No. 4 is groundless.

Therefore, the reason 3 for invalidation is groundless.

No. 7 Conclusion

As stated above, the patent for the present invention cannot be invalidated based on the reasons alleged by the demandant and the means of proof submitted.

The cost in connection with the trial shall be borne by the demandant in accordance with Article 61 in the Code of Civil Procedure as applied *mutatis mutandis* under Article 169(2) of the Patent Law.

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

February 26, 2019

Chief administrative judge: HIRATA, Nobukatsu

Administrative judge: OZEKI, Mineo

Administrative judge: OZAKI, Kazuhiro