

BizLink Technology, Inc.
v.
Anderson Power Products, Inc.

IPR2024-00687 (US 8,808,017)

PATENT OWNER'S DEMONSTRATIVE EXHIBIT

Contents

- **Claim Construction**
 - “insulating”
 - “within”
- **Petitioner has failed to prove that the Challenged Claims are anticipated**
 - Petitioner has failed to show that Winkler discloses Limitations 1[f], 1[g], 1[h], and 1[i]
 - Petitioner has failed to show that Winkler discloses dependent claim 4
 - Petitioner has failed to show that Kataoka discloses Limitations 1[d] and 1[i]
 - Petitioner has failed to show that Kataoka discloses dependent claims 2-4
- **Petitioner has failed to prove that Winkler renders dependent claims 8 and 10-12 obvious**

Claim Construction

Challenged Claim 1

1. An electrical connector pair, comprising:
 - a first connector having a first insulating housing;
 - a first electrical contact supported within the first insulating housing, the first electrical contact having a connecting surface that is substantially parallel with a longitudinal axis of the insulating housing and terminates in a leading end of the first electrical contact;
 - a second connector having a second insulating housing;
 - a second electrical contact supported within the second insulating housing, the second electrical contact being configured to laterally engage with the connecting surface of the first electrical contact when the first connector is mated with the second connector;
 - a first insulating barrier within the first connector extending beyond and covering the leading end of the first electrical contact; and
 - a second insulating barrier extending beyond the second electrical contact within the second connector, the second insulating barrier being configured so as to be in close proximity with the first insulating barrier when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance, thereby blocking substantially all through-air arcing paths between the first and second electrical contacts.

EX1001 at claim 1

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Parties' Proposed Constructions Of "insulating"

Patent Owner's Construction	Petitioner's Construction
"electrically insulating"	"protective"

POR at 12-18; Reply at 2-3

Federal Circuit: “insulating” Should Be Interpreted Consistently

149 F.3d 1335

United States Court of Appeals,
Federal Circuit.

DIGITAL BIOMETRICS, INC., Plaintiff–Appellant,
v.
IDENTIX, INC. and Randall C.
Fowler, Defendants–Appellees.

[9] [10] The word “array” is used repeatedly in the specification. Claim 16 itself uses the word twice: once to refer to the data structures containing the “slice data” and another time to refer to the data structure containing the “data characteristic of the rolled fingerprint image,” i.e., the composite array. Thus, whatever interpretation we assign should encompass both uses because the same word appearing in the same claim should be interpreted consistently. See *Fonar Corp. v. Johnson & Johnson*, 821 F.2d 627, 632, 3 USPQ2d 1109, 1113 (Fed.Cir.1987) (the meaning of a term in a claim must be defined in a manner that is consistent with its appearance in other claims in the same patent).

POR at 14

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Claims Support Patent Owner's Construction

1. An electrical connector pair, comprising:
 - a first connector having a first insulating housing;
 - a first electrical contact supported within the first insulating housing, the first electrical contact having a connecting surface that is substantially parallel with a longitudinal axis of the insulating housing and terminates in a leading end of the first electrical contact;
 - a second connector having a second insulating housing;
 - a second electrical contact supported within the second insulating housing, the second electrical contact being configured to laterally engage with the connecting surface of the first electrical contact when the first connector is mated with the second connector;
 - a first insulating barrier within the first connector extending beyond and covering the leading end of the first electrical contact; and
 - a second insulating barrier extending beyond the second electrical contact within the second connector, the second insulating barrier being configured so as to be in close proximity with the first insulating barrier when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance, thereby blocking substantially all through-air arcing paths between the first and second electrical contacts.

EX1001 at claim 1; POR at 12-14

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Specification Supports Patent Owner's Construction

switching device. One general aspect of the invention includes an insulating barrier that suppresses arcing between separated contacts during connection and disconnection of the electrical contacts. The insulation barrier of the present invention thereby protects users from electrical burns and extends the useful life of the connector.

configuration. Although the ends of the two contacts **100, 102** are not separated by a large distance, the male insulating barrier **200** is very near to or physically in contact with the female insulating barrier 202, thereby blocking substantially all through-air arcing paths between the contacts 100, 102.

tors are mated. Insulated housings 104, 106 surround the male and female contacts, and shield the contacts from environmental hazards, as well as providing some protection to a user in case arcing occurs when the user is handling the connector pair. In the prior art example of FIG. 1A, additional insulating

tance end **500** of the male contact **100**. It can be seen from the figure that during disengagement, the end of the female contact **102** slides from the low resistance portion of the male contact **100** onto the high resistance portion **500** of the male contact **100**, and then onto the male insulating barrier 202 which blocks any tendency of the current to arc from the female contact 102 to the end 500 of the male contact 100. The resistance of the circuit is thereby increased during disconnection in two steps, rather than transitioning suddenly from low resistance to near-infinite resistance.

EX1001 at 1:58-63, 3:2-6, 3:32-36, 3:63-4:5; POR at 14-16

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Petition Supports Patent Owner's Construction

Housing 5 is an “insulating housing,” because it is formed of non-conductive resin.

Insulating member 43a of insulator 8a is an “insulating barrier” because it is formed of non-conductive material and because it “ensure[s] insulation between the contact points (or between a contact point and the first terminal housing).” Ex. 1005, 5:37-38, *see also* 6:42-45; Eldering, ¶149.

Petition at 64, 75; POR at 17-18

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Board Agreed With Patent Owner's Construction

Although “a patent’s written description can set forth more than one definition of a claim term,” we do not discern that to be the case here. *See Pitney Bowes*, 182 F.3d at 1310. The portions of the Specification of the ’017 patent that Patent Owner cites use “insulating” and its associated tenses to mean suppressing electrical arcing and protecting from electrical burns, i.e., electrically insulating. *See, e.g.*, Ex. 1001, code (57), 1:58–2:3, 2:42–44, 3:2–6, 3:30–40, 3:63–4:10, *cited in* Prelim. Resp. 12–14.

Accordingly, for purposes of this Decision, we interpret “insulating” as recited in the claims to mean “electrically insulating.”

Institution Decision at 11-12

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner: “insulating housings” Are Described As Merely “protective”

The inventors never defined the claimed insulating housing as “electrically insulating.” The term “insulating housing” only appears twice in the specification in describing *prior art* insulating housings 104, 106. Ex.1001, 3:2-10. Focusing on protective characteristics, the specification describes the insulating housings as “shielding the contacts from environmental hazards” and “providing some protection to a user.” *Id.*; Ex.2002, 77:16-80:10. The inventors never defined any “insulating housings” as “electrically insulating.”

Reply at 2-3

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Petitioner Misreads The Specification And Reads “insulating” Out Of The Claims

Petitioner’s new construction is wrong because it is overbroad, unreasonable, and improperly reads “insulating” out of the claims. *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1369 (Fed. Cir. 2005). There is no dispute that a housing will provide some degree of protection, regardless of whether it is “insulating.” (EX2001, ¶141; Reply, 2-3, 22-23.) In other words, a housing is already protective. Consequently, under Petitioner’s construction, the claims would mean the same thing if they simply recited a “housing.”

tors are mated. Insulated housings 104, 106 surround the male and female contacts, and shield the contacts from environmental hazards, as well as providing some protection to a user in case arcing occurs when the user is handling the connector pair. In the prior art example of FIG. 1A, additional insulating

EX1001 at 3:2-6; Sur-Reply at 1-2

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

12

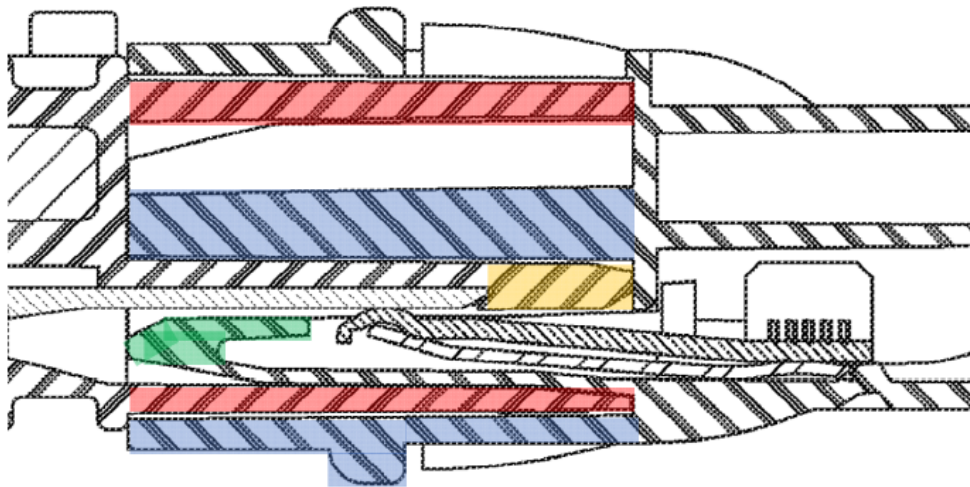
The Parties' Proposed Constructions Of "within"

Patent Owner's Construction	Petitioner's Construction
"on the inside of"	None

POR at 19-22; Reply at 3-5

The Intrinsic Evidence Supports Patent Owner's Construction

pair. (*Id.*, 2:48-49, 3:43-44.) As explained in the POR, Figure 3B confirms that the first and second insulating barriers are *on the inside of* the first and second connectors, respectively. (POR, 20-21.)



(EX1001, FIG. 3B (annotated).)

POR at 19-22; Sur-Reply at 11

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Extrinsic Evidence Supports Patent Owner's Construction

¹ **with·in** adverb \ wi-'thin , -'thin \

1a : on the inside or on the inner side : INTERNALLY, INSIDE <had plastered the walls and whitewashed them within and without — Ellen Glasgow>

b : inside the body : underneath the skin <a man whose blood is warm within — Shakespeare>

c : HEREIN <the person within named>

2 : inside the bounds of a place or region <but whom they fear'd without, they found within — John Dryden> <traitors within, as well as exiles without — George Grote>

3a : in or into a building : INDOORS <rooms for rent, inquire within>

b : in an inner room or enclosure <presenting action which must be shown within (as in a curtained study or bedroom) — Leslie Hotson>

c : behind the scenes —used in stage directions <one calls within — Shakespeare>

d : at home <not being within when he called — Jane Austen>

4 : in one's inner thought, disposition, or character : INWARDLY <an air of aloofness about him ... he lived within — H. A. McHugh> <outwardly calm but raging within>

Origin of WITHIN

EX2009; POR at 22

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's Invalidity Grounds

Invalidity Grounds

WINKLER GROUNDS

1A	<u>1-4, 9</u>	<u>§102</u>	<u>Winkler</u> (Ex. 1004)
1B	7	§103	<i>Winkler</i> (Ex. 1004) in view of <i>Winkler2</i> (Ex. 1006)
1C	8, 10	§103	<i>Winkler</i> (Ex. 1004) in view of Handbook (Ex. 1008)
1D	11, 12	§103	<i>Winkler</i> (Ex. 1004) in view of <i>Poliak</i> (Ex. 1007)

KATAOKA GROUNDS

2A	<u>1-4</u>	<u>§102</u>	<u>Kataoka</u> (Ex. 1005)
2B	7-10	§103	<i>Kataoka</i> (Ex. 1005) in view of the Handbook (Ex. 1008)

Petition at 18-19

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Summary Of Parties' Disputes

- Whether Petitioner has proven that Winkler discloses:
 - Limitation 1[f]
 - Limitations 1[g] and 1[h]
 - Limitation 1[i]
- Whether Petitioner has proven that Winkler discloses dependent claim 4
- Whether Petitioner has proven that Kataoka discloses Limitations 1[d] or 1[i]
- Whether Petitioner has proven that Kataoka discloses dependent claims 2-4
- Whether Petitioner has proven that its Winkler combinations render obvious dependent claims 8 and 10-12

See generally POR

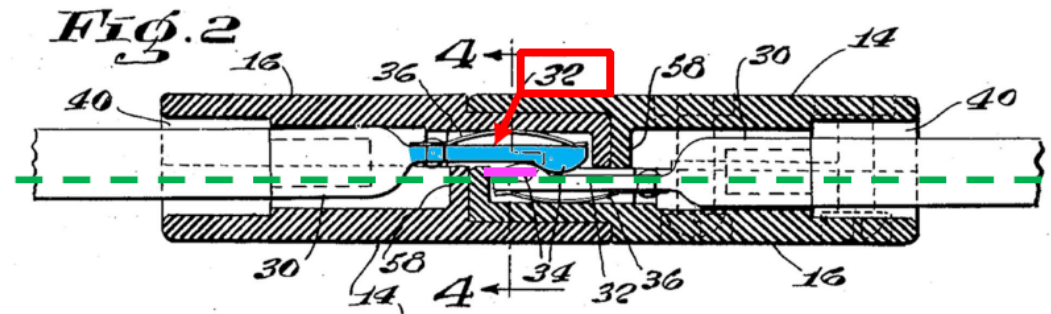
Dispute #1: Whether Petitioner Has Proven That Winkler Discloses Limitation 1[f]

Limitation 1[f]

the second electrical contact being configured to laterally engage with the connecting surface of the first electrical contact when the first connector is mated with the second connector;

The Petition's Mapping Of The “connecting surface”

the second electrical contact being configured to laterally engage with the connecting surface of the first electrical contact when the first connector is mated with the second connector;



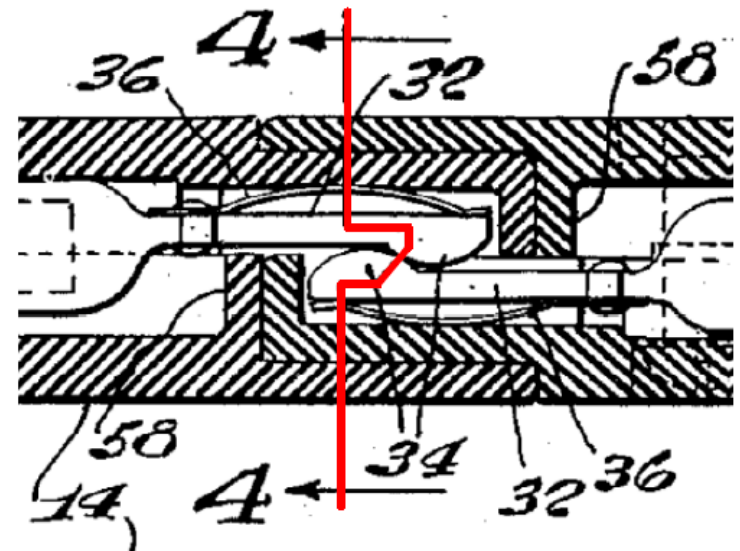
Ex. 1004, Fig. 2 (annotated highlighting **contact member 22** in blue, adding a longitudinal axis in green, circling elongated flat portion 32, and identifying a connecting surface in pink)

Contact member 22 includes elongated flat portion 32 that is a “connecting surface” as claimed

Therefore, flat elongated portion 32 of contact member 22 is a “connecting surface,” as claimed. Eldering, ¶67.

There Is No Engagement Between Winkler's Second Contact And The Elongated Flat Portion 32 Of The First Contact

76. Winkler does not disclose that the elongated flat portion 32 of the first electrical contact engages or contacts the second electrical contact. (EX1004, Winkler, at 2:10-14, 2:27-32, 3:14-27, FIGS. 1-4.) The only time Winkler discloses the two electrical contacts as engaging or contacting each other is with respect to the two convex end portions 34 engaging or contacting each other. (*Id.*)



POR at 27-32; EX2001, ¶¶ 73-80

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Federal Circuit: “patent figures are generally not intended to convey such detail”

2007 WL 634430
United States Court of Appeals,
Federal Circuit.

FRANKLIN ELECTRIC CO., INC., Plaintiff-Appellant,
v.
DOVER CORPORATION (doing business as
OPW Fueling Components), Defendant-Appellee.

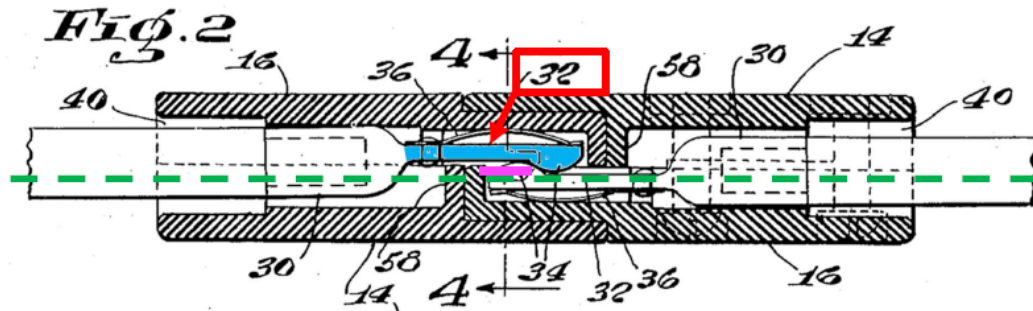
The only arguable contact in that portion of the figure is provided by an ambiguous line extending from the top of the upward extension to the side of the spill collector. That line might have been intended to indicate a connection, it might have been accidental, or it might have been intended to indicate something else altogether.

We need not resolve the ambiguity here because patent figures are generally not intended to convey such detail. *Cf. Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed.Cir.2000) (“Under our precedent ... it is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.”).

Petitioner's Reply: Winkler's "connecting surface" Includes Both The Flat Portion 32 And The Curved Portion 34

As shown, the petition identifies both the elongated flat section of the electrical contact *and* the curved portion of the contact as the connecting surface. Petition, 23; Ex.2002, 39:8-40:3.

Petitioner's New Reply Argument Is Inconsistent With The Petition And Should Be Stricken



Ex. 1004, Fig. 2 (annotated highlighting contact member 22 in blue, adding a longitudinal axis in green, circling elongated flat portion 32, and identifying a connecting surface in pink)

Contact member 22 includes elongated flat portion 32 that is a “connecting surface” as claimed

Therefore, flat elongated portion 32 of contact member 22 is a “connecting surface,” as claimed. Eldering, ¶67.

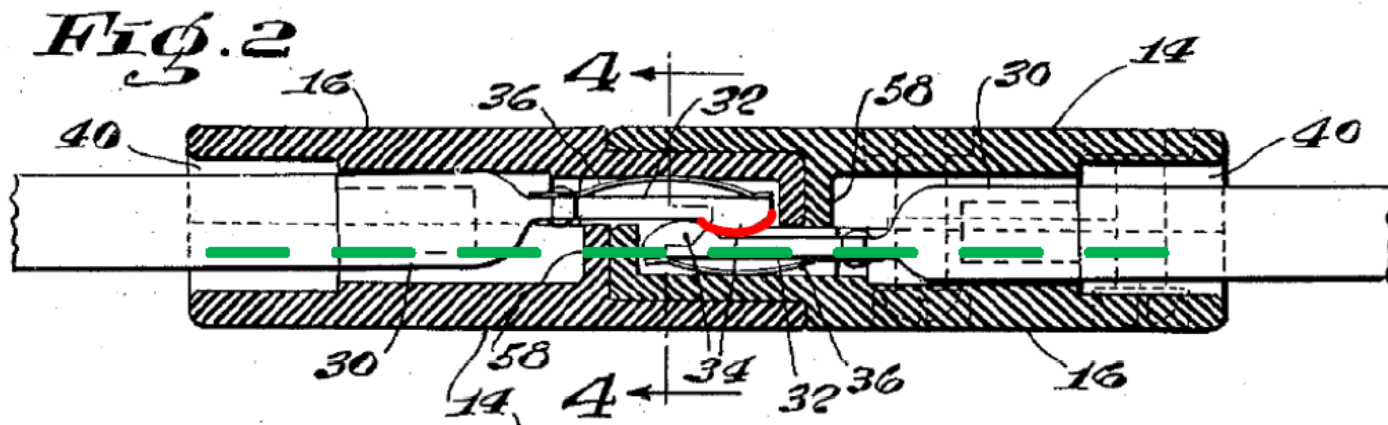
Sur-Reply at 5-7; Motion to Strike at 1;
Petition at 23-25

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's New Reply Argument Fails

a first electrical contact supported within the first insulating housing, the first electrical contact having a connecting surface that is substantially parallel with a longitudinal axis of the insulating housing and terminates in a leading end of the first electrical contact;

As I have illustrated below, Winkler's "convex end portion 34" (shown in red) is not substantially parallel with the longitudinal axis of Winkler's insulating housing (shown in green):



EX1001 at claim 1 (1[c]); Sur-Reply at 7-8; EX2001, ¶ 83

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

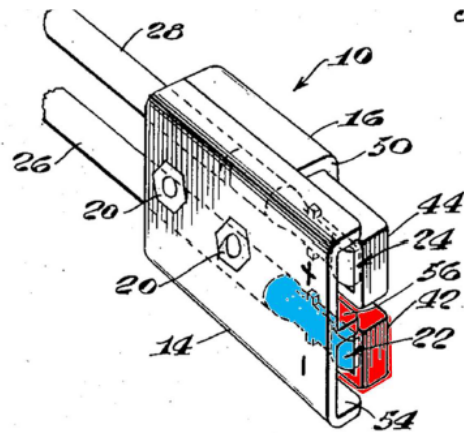
Dispute #2: Whether Petitioner Has Proven That Winkler Discloses Limitations 1[g] and 1[h]

Limitations 1[g] And 1[h]

- a first insulating barrier within the first connector extending beyond and covering the leading end of the first electrical contact; and
- a second insulating barrier extending beyond the second electrical contact within the second connector,

Petition: Winkler's “receiving pockets 42” Are “insulating barriers”

Winkler discloses 1[g]. *Winkler*'s connector 10 includes terminal receiving pocket 42 in housing section 16. Ex. 1004, 2:23-25. Receiving pocket 42 is a “first insulating barrier” that “cover[s] the leading end of the first electrical contact” as claimed, because receiving pocket 42 is “substantially U-shaped in cross section and closed at [its] outer end[.]” *Id.*, 2:25-26.

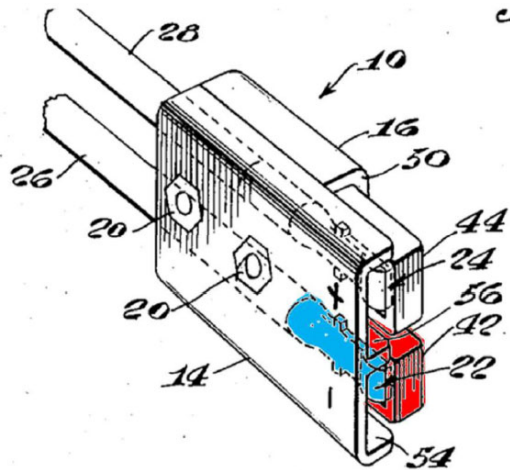


Petition at 30-32

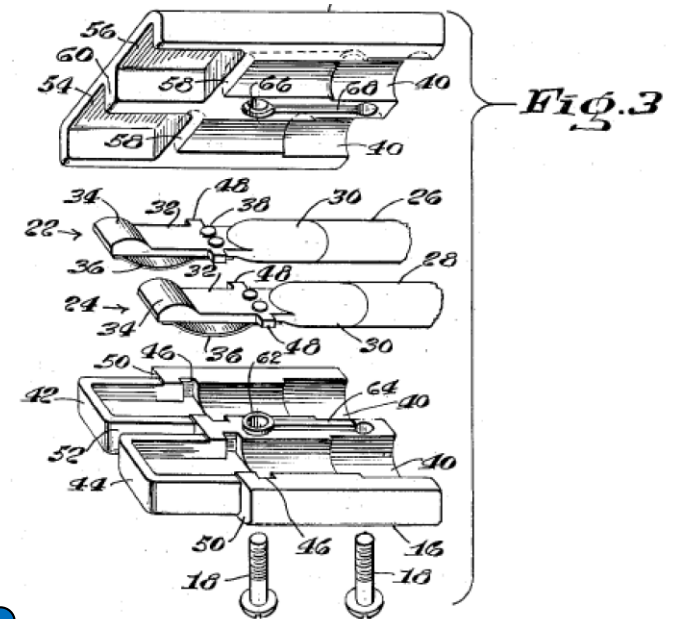
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Winkler's "receiving pockets 42" Are Not "within" The Connectors

89. Petitioner's and Dr. Eldering's annotated version of Winkler's Figure 1 (reproduced below) further confirms that Winkler's "receiving pocket 42" (*i.e.*, the alleged first insulating barrier) is not "within" (*i.e.*, inside) Winkler's first connector 10, as the receiving pocket 42 is formed on the outside or exterior of connector 10 (not inside the connector 10):



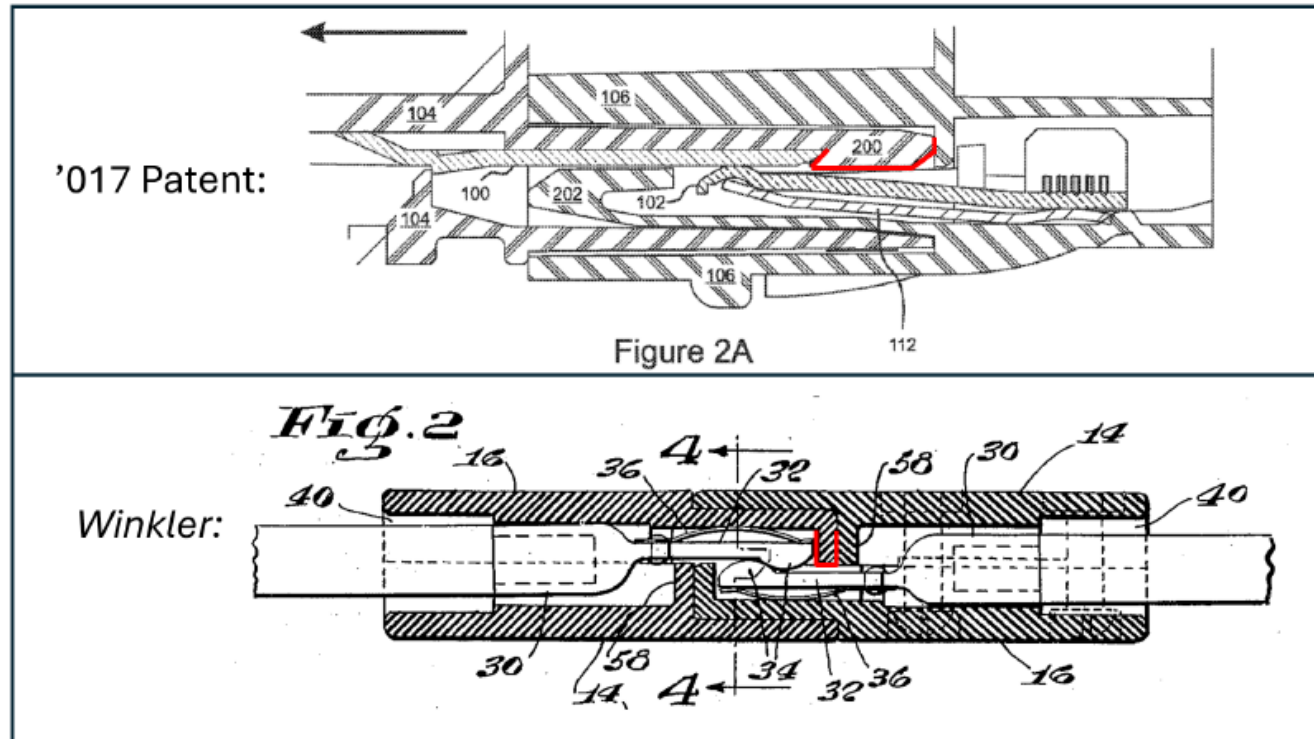
88. As further shown in Figure 3 below, Winkler discloses that the only things within (*i.e.*, inside) Winkler's first connector 10 are the electrical contacts 22 and 24 and air:



POR at 32-37; EX2001, ¶¶ 84-96

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner: Winkler's Disclosure Is The Same As FIG. 2A



Reply at 11, 13

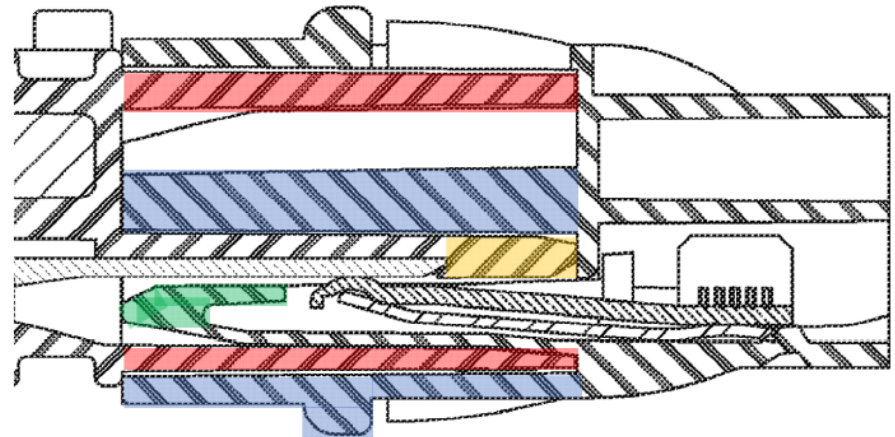
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's Reliance On FIG. 2A Is Misleading

FIG. 2A is a partial cross-sectional illustration of an embodiment of the present invention, shown in a connected

connected configuration. FIG. 3B is a cross-sectional side view of the complete connector of FIG. 3A. FIG. 4A is a top

pair. (*Id.*, 2:48-49, 3:43-44.) As explained in the POR, Figure 3B confirms that the first and second insulating barriers are on the inside of the first and second connectors, respectively. (POR, 20-21.)



Sur-Reply at 10-11

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Dispute #3: Whether Petitioner Has Proven That Winkler Discloses Limitation 1[i]

Limitation 1 [i]

the second insulating barrier being configured so as to be in close proximity with the first insulating barrier when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance, thereby blocking substantially all through-air arcing paths between the first and second electrical contacts.

Petition: Counsel's Made-up Diagram Discloses Limitation 1[i]



Diagram created based on Ex. 1004, Fig. 2, (modified to show connector 10 and connector 12 partially disconnected)

As illustrated in the diagram above, when connector 10 and connector 12 are partially disconnected, the **first contact member** (in blue) is separated from the **second contact member** (in orange) by a short distance, and the closed ends of the **first insulation barrier** (in red) and the **second insulation barrier** (in green) are in close proximity to one another. In the diagram above, the first and second insulation barriers block substantially all through-air arcing paths between the **first contact member** and the **second contact member**. Therefore, *Winkler* meets 1[i].
Eldering, ¶¶79-82.

Petition at 32-33; EX2002 at 152:5-15, 155:8-16
(confirming that counsel made the diagram
shown in the Petition)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

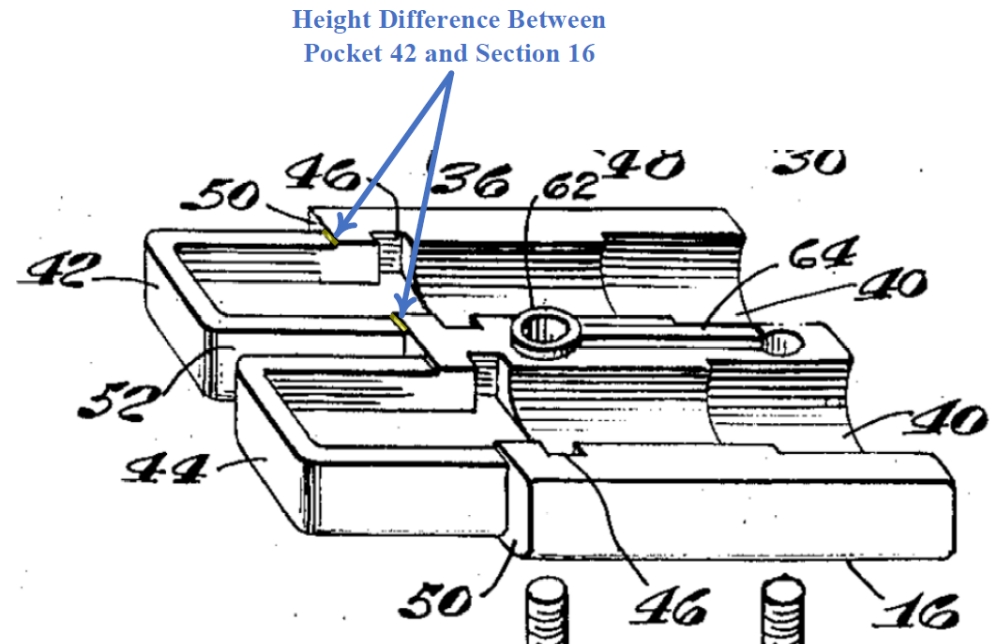
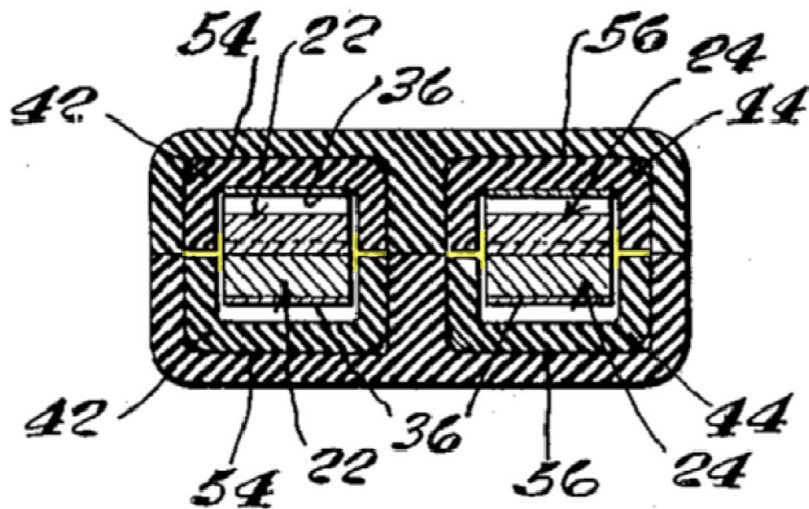
Institution Decision: Made-up Diagram Not “per se improper”

Petitioner’s reliance on the modified Figure 2 diagram not explicitly shown in Winkler is not per se improper, so long as the skilled artisan would have reasonably understood that that is what Winkler discloses. *See Acoustic Tech., Inc. v. Itron Networked Solutions, Inc.*, 949 F.3d 1366, 1373 (Fed. Cir. 2020) (“In an anticipation analysis, the dispositive question is whether a skilled artisan would ‘reasonably understand or infer’ from a prior art reference that every claim limitation is disclosed in that single reference. . . .

Undisputed: Petitioner's Made-up Diagram Is Inconsistent With Winkler's Disclosures And A POSITA Would Not Have Envisaged It

102. I disagree with Petitioner and Dr. Eldering. The above made-up diagram is not disclosed anywhere in Winkler. (*See generally* EX1004, Winkler.) I also would never envisage this diagram from Winkler's actual figures and disclosures and, as discussed further below, the above diagram is inconsistent with Winkler's actual figures and disclosures.

109. Petitioner's and Dr. Eldering's made-up annotated diagram is inconsistent with at least Figures 3 and 4 of Winkler and does not accurately represent what would be seen in the partially disconnected state.



POR at 37-44; EX2001, ¶¶ 98-109; Reply at 14-19 (Petitioner failing to dispute that its made-up diagram is inaccurate)

Winkler Discloses Electrical Arcing When The Connectors Are Partially Disconnected

ment thereof during normal usage. The present terminals are also adapted for self-cleaning during engagement and disengagement thereof and are shaped so that any pitting of the terminals caused by arcing at the extreme ends thereof during disengagement will not impair the efficiency of the terminals at the areas of contact in their engaged position. Also, with the present con-

From the above description it will be seen that in operation, any pitting of the terminals caused by arcing at the extreme ends thereof during disengagement will not impair the efficiency of the contacting surfaces when the terminals are in their fully engaged position, and that the sliding movement of the terminals against each other during engagement and disengagement will effect self-cleaning thereof. It will also be observed that the

POR at 42; EX2001, ¶¶ 105-106; EX1004 at 1:54-61, 3:40-47

Dispute #4: Whether Petitioner Has Proven That Winkler Discloses Claim 4

Claim 4

4. The connector pair of claim 1, further comprising a barrier tensioning mechanism that presses the first and second insulating barriers against each other when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance.

EX1001 at claim 4

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Petition: Counsel's Made-up Diagram Discloses Claim 4

Winkler discloses the “barrier tensioning mechanism” of claim 4. As shown in the diagram below, outer portions of each connector housing in *Winkler* form narrow openings in the connectors, such that the first and second insulating barriers are pressed together when the connectors are partially disconnected:



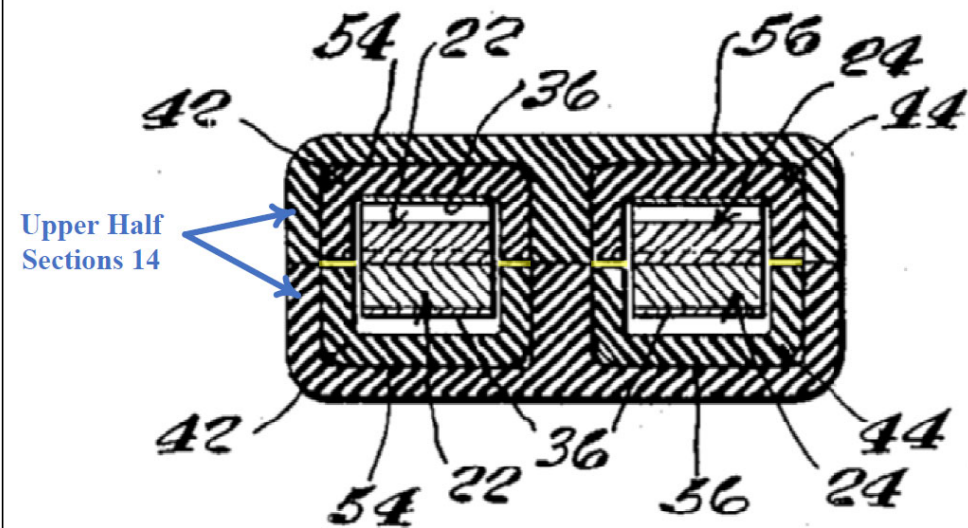
The **pink** highlighted portions of each connector housing are **barrier tensioning mechanisms** because they cause the **first insulating barrier** and the **second insulating barrier** to press against each another. Eldering, ¶89.

Petition at 36-37; EX2002 at 173:3-10 (confirming that counsel made the diagram shown in the Petition)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Winkler's Alleged Insulating Barriers Do Not Press Against Each Other

114. As discussed above, Winkler discloses that the alleged insulating barriers do not press against each other when the connectors 10, 12 are partially disconnected. Contrary to what Petitioner's and Dr. Eldering's made-up diagram depicts, Winkler's Figure 4 shows that there is an appreciable gap between the pockets 42 (i.e., the alleged insulating barriers). The pockets 42 cannot be pressed against each other if they are not even touching. As shown below, the only portions of the housings that physically press against each other are the opposing upper half sections 14:



POR at 45-46; EX2001, ¶¶ 110-114

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Dispute #5: Whether Petitioner Has Proven That Kataoka Discloses Limitation 1[d]

Limitation 1[d]

a second connector having a second insulating housing;

EX1001 at claim 1

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petition: Kataoka's Housing 7 Is An "insulating housing"

Like housing 5 discussed above, second terminal housing 7 of second connector portion 3 surrounds the contact members and protects them from the environment. Ex. 1005, 4:56-66, 10:19-29, 12:17-43, Figs. 6A, 6B. Therefore, housing 7 constitutes the claimed "insulating housing." Eldering, ¶142.

Petition at 68-70

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Institution Decision: Petitioner Failed To Make A *Prima Facie* Showing

3. *Alleged Anticipation By Kataoka: Claims 1–4*

Petitioner contends that claims 1–4 of the '017 patent would have been anticipated under 35 U.S.C. §§ 102(a) or 102(e) by Kataoka. Pet. 15, 63–86. For the reasons below, the evidence on this record indicates there is not a reasonable likelihood that Petitioner would prevail in demonstrating that independent claim 1 of the '017 patent would have been anticipated under 35 U.S.C. §§ 102(a) or 102(e) by Kataoka.

As discussed further below, Petitioner's arguments regarding limitation 1[d] are insufficient to establish a reasonable likelihood of prevailing on this asserted ground.

Institution Decision at 30

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Petitioner's Reply: Cylindrical Body 36 Is “electrically insulating”

Ex.2001, ¶ 54; Ex.1022, 120:22-25. *Kataoka* discloses an embodiment in which the cylindrical body 36 is formed of a non-conductive resin. Ex.2006, 13:21-25 (“Since the cylindrical body 36 is formed of a non-conductive resin in the present embodiment”); Ex.1022, 120:1-6. Therefore, even if under Patent Owner’s construction narrowing every instance of “insulating” to “electrically insulating,” *Kataoka* anticipates 1[d].

Reply at 23

Petitioner's New Reply Argument Was Not Raised In The Petition And Should Be Stricken

Like housing 5 discussed above, second terminal housing 7 of second connector portion 3 surrounds the contact members and protects them from the environment. Ex. 1005, 4:56-66, 10:19-29, 12:17-43, Figs. 6A, 6B. Therefore, housing 7 constitutes the claimed “insulating housing.” Eldering, ¶142.

Further, the newly cited portion of Kataoka (i.e., EX1005 at 13:21-25) was not cited anywhere in the Petition or in Dr. Eldering’s declaration. (Petition, 68-70 (citing only EX1005 at FIGS. 1 and 6A-B, 4:56-66, 10:19-29, 12:17-64); EX1003, ¶142 (same); ID, 30 (“the portions of Kataoka that Petitioner relies upon ... do not support a finding that the housing is either inherently or expressly electrically insulating.”); EX2001, ¶144.)

Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019

if necessary to respond to petitioner’s reply. Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability. A party also may submit rebuttal evidence in support of its reply. *See*

Sur-Reply at 20-22; Motion to Strike at 1-2;
Petition at 68-70

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's New Reply Argument Fails

Kataoka *does not disclose* that its housing 7 (*i.e.*, the alleged “second housing”) is electrically insulating. (EX2001, ¶¶143-144; *see generally* EX1005.)⁹ Rather, Kataoka at best discloses that the cylindrical body 36, which is one part of the housing 7 (but not the housing 7), may be formed of a non-conductive resin. (EX1005, 13:21-22; *id.*, FIGS. 1 and 6B (illustrating cylindrical body 36 as merely one part of housing 7).)

That one part of the housing 7 may be formed of a non-conductive resin does not disclose that the housing 7 is “electrically insulating.” For example, an electrically conductive housing with one non-conductive component is still an electrically conductive housing. The Petition and the Reply are silent as to the material properties of the rest of the housing 7. (Petition, 68-70; EX1003, ¶142; ID, 30; EX2001, ¶¶143-144.)

Sur-Reply at 21-22

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Petitioner's New Reply Argument Fails (cont.)

Moreover, Kataoka expressly discloses that the inner surface of the cylindrical body 36 (*i.e.*, the cylindrical shield body 41) is formed of “aluminum,” which is electrically conductive. (EX1005, 13:22-24; *id.*, 13:26-31 (disclosing that the cylindrical shield body 41 creates an electrical connection).) Thus, Kataoka fails to disclose that the cylindrical body 36 is “electrically insulating,” let alone that the housing 7 is “electrically insulating.” (*Id.*)

Since the cylindrical body 36 is formed of a non-conductive resin in the present embodiment, the aluminum cylindrical shield body 41 is provided on an inner peripheral surface of the cylindrical body 36 on the other end side in order to improve the shielding performance and the heat dissipation.

The cylindrical shield body 41 has a contact portion 42 which comes in contact with an outer periphery of the aluminum first terminal housing 5 when the first connector portion 2 is fitted to the second connector portion 3, and the cylindrical shield body 41 and the first terminal housing 5 are thermally and electrically connected via the contact portion 42.

Sur-Reply at 22; EX1005 at 13:22-31

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Dispute #6: Whether Petitioner Has Proven That Kataoka Discloses Limitation 1[i]

Limitation 1 [i]

the second insulating barrier being configured so as to be in close proximity with the first insulating barrier when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance, thereby blocking substantially all through-air arcing paths between the first and second electrical contacts.

Petition: Counsel's Made-up Diagram Discloses Limitation 1[i]

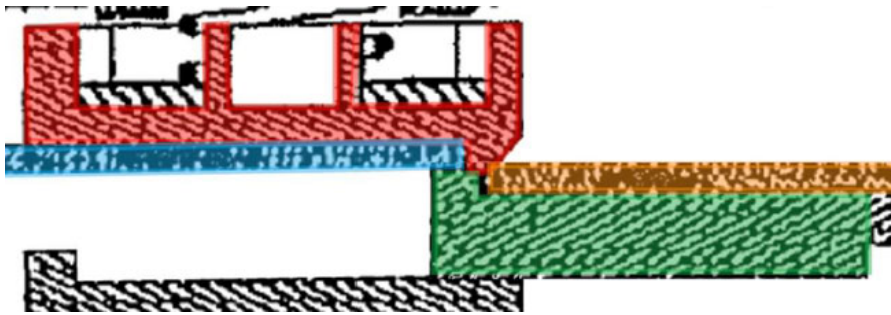


Diagram created based on Ex. 1005, Fig. 3 (top), and enlarged portion (bottom) (showing a ~~first insulating barrier in red~~ and a ~~second insulating barrier in green~~ of a connector pair in a partially disconnected configuration, a ~~first electrical contact in blue~~, and a ~~second electrical contact in orange~~)

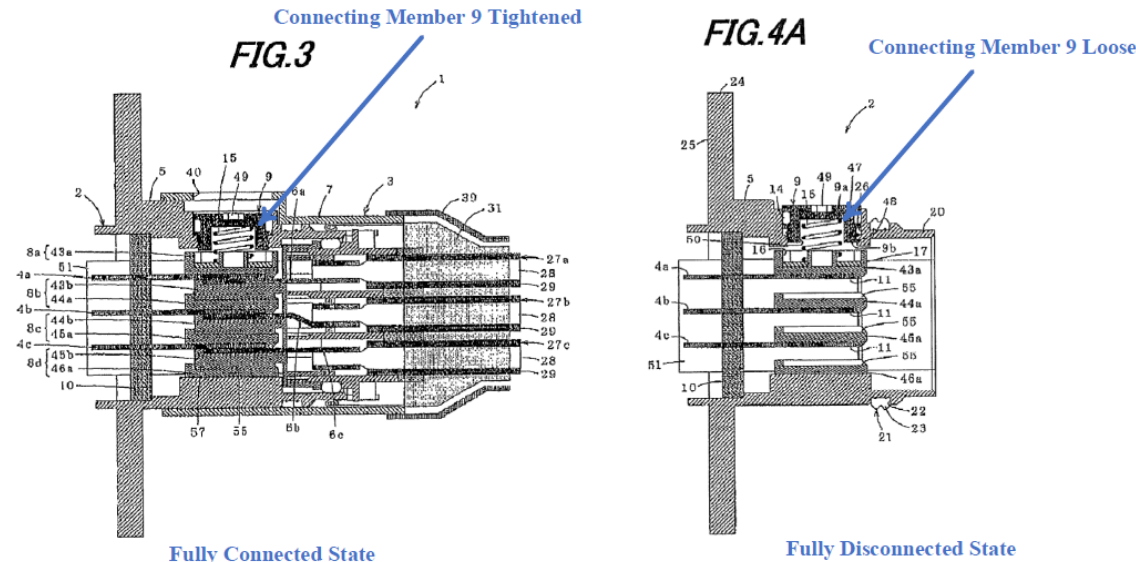
As shown above, the **first insulating barrier** and the **second insulating barrier** “block[] substantially all through-air arcing paths between the **first** and **second electrical contacts**,” as claimed. This is apparent because there is no air gap or other through-air arcing path between the **first insulating barrier** and the **second insulating barrier**. Eldering, ¶156.

Petition at 78-83; EX2002 at 181:16-182:8, 183:1-4, 183:9-184:19
(confirming that counsel made the diagram shown in the Petition)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Undisputed: Petitioner's Made-up Diagram Is Inconsistent With Kataoka's Disclosures And A POSITA Would Not Have Envisaged It

157. Petitioner's and Dr. Eldering's made-up annotated diagram does not accurately reflect Kataoka's connectors 2, 3 in the partially disconnected state. I understand that Petitioner's and Dr. Eldering's made-up annotated diagram is based on Kataoka Figure 3, which shows connectors 2, 3 fully fitted together and connecting member 9 tightened. (EX1005, Kataoka, at FIG. 3.) But, as noted above, Kataoka discloses that connecting member 9 is only tightened when connectors 2, 3 are fully fitted together. Contrary to what is shown in Petitioner's and Dr. Eldering's made-up annotated diagram, connecting member 9 is not tightened in the partially disconnected state. Petitioner's and Dr. Eldering's made-up annotated diagram simply does not represent what would be seen in the partially disconnected state.

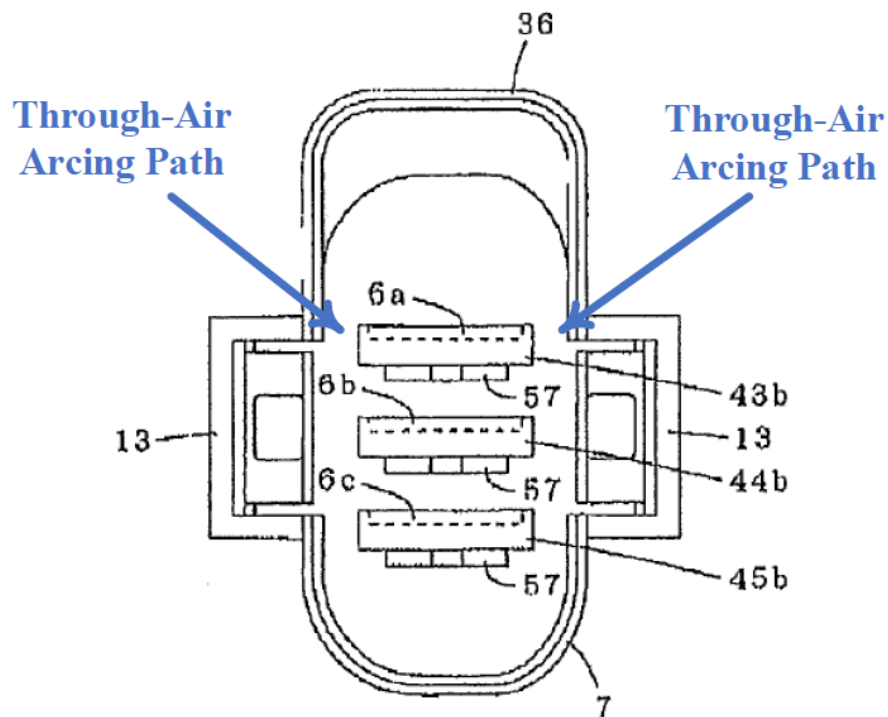


After that, as shown in FIG. 3, when the male screw 48 of the connecting member 9 and the female screw 47 of the first terminal housing 5 are joined together and tightened by manipulating the connecting member 9

POR at 57-66; EX2001, ¶¶ 146-158; EX1005 at FIGS. 3 and 4A, 14:49-52; Reply at 24-26 (Petitioner failing to dispute that its made-up diagram is inaccurate)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Kataoka Does Not Disclose Limitation 1[i]



At this time, in the first connector portion 2, the first insulating members 43a-46a and the second insulating members 43b-45b which compose the insulators 8a-8d are respectively fixed to the ends of the first connecting terminals 4a-4c and the second connecting terminals 6a-6c aligned and held at predetermined intervals and to the first terminal housing 5, each gap between the insulators 8a-8d can be kept without additionally providing a retention jig for keeping gaps between the insulators 8a-8d. This makes easy to respectively insert the second connecting terminals 6a-6c and the second insulating members 43b-45b into gaps between first connecting terminals 4a-4c and first insulating members 43a-46a which are respectively paired therewith. In other words, the insertion and extraction properties of the second connecting terminals 6a-6c are not degraded. In addition, it is very effective in that it is possible to realize further downsizing as compared to the conventional art since it is not necessary to provide a retaining jig for keeping the gaps between the insulators 8a-8d.

Dispute #7: Whether Petitioner Has Proven That Kataoka Discloses Claims 2 and 3

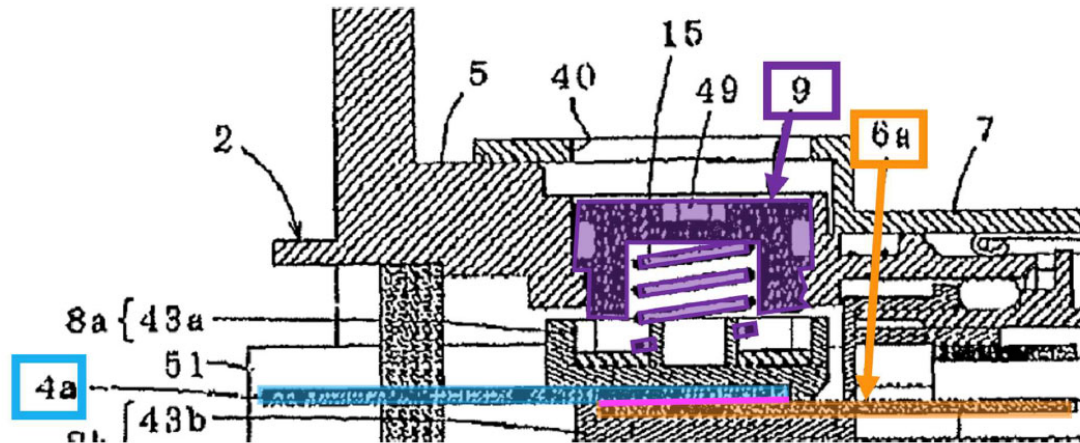
Claims 2 and 3

2. The connector pair of claim 1, further comprising a contact tensioning mechanism that presses the second electrical contact against the engaging surface of the first electrical contact when the first and second connectors are connected.

3. The connector pair of claim 2, wherein the contact tensioning mechanism includes a spring.

Petition: Connecting Member 9 Is A “contact tensioning mechanism”

For these reasons, connecting member 9 of Kataoka constitutes the “contact tensioning mechanism” of claim 2. Eldering, ¶161.



Ex. 1005, portion of Fig. 3 (annotated highlighting connecting member 9 in purple, first connecting terminal 4a in blue, and second connecting terminal 6a in orange, and indicating a connecting surface in pink)

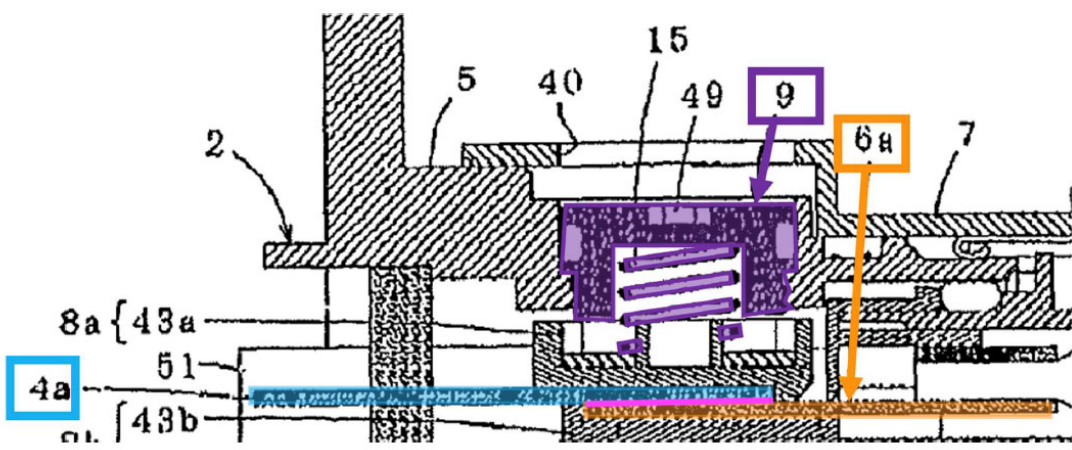
Petition at 83-85

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Connecting Member 9 Does The Opposite Of What Is Claimed

2. The connector pair of claim 1, further comprising a contact tensioning mechanism that presses the second electrical contact against the engaging surface of the first electrical contact when the first and second connectors are connected.

Petitioner’s attorney-only argument is wrong. While Kataoka’s alleged “contact tensioning mechanism” (*i.e.*, connecting member 9) presses the first electrical contact against the engaging surface of the second electrical contact, it does not press the second electrical contact back up against the first electrical contact. (POR, 68; EX2001, ¶162.) Rather, as shown below, Kataoka’s *insulating member 43b* presses the *second electrical contact 6a* back up against the *first electrical contact 4a*:



Ex. 1005, portion of Fig. 3 (annotated highlighting connecting member 9 in purple, first connecting terminal 4a in blue, and second connecting terminal 6a in orange, and indicating a connecting surface in pink)

POR at 68; EX2001, ¶¶ 161-164; Sur-Reply at 26-27; Petition at 84

Dispute #8: Whether Petitioner Has Proven That Kataoka Discloses Claim 4

Claim 4

4. The connector pair of claim 1, further comprising a barrier tensioning mechanism that presses the first and second insulating barriers against each other when the first and second connectors are partially disconnected and the first and second electrical contacts are separated by a short distance.

EX1001 at claim 4

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Petition: Counsel's Made-up Diagram Discloses Claim 4

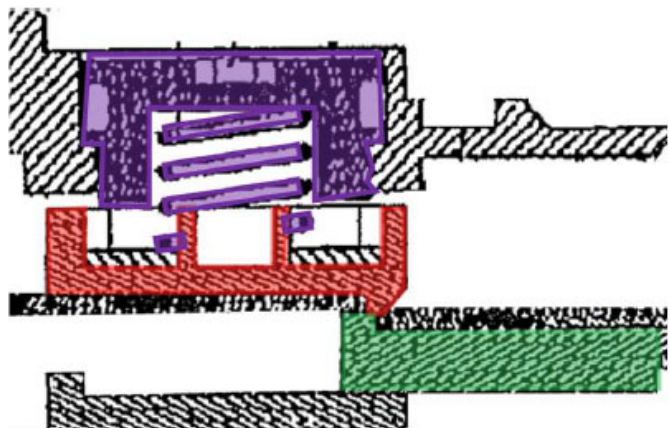


Diagram created based on Ex. 1005, Fig. 3 showing a **first insulating barrier in red** and a **second insulating barrier in green** of a connector pair in a partially disconnected configuration, and a **connecting member 9 in purple**

The diagram above shows part of the first connector portion 2 (the first connector) and part of the second connector portion 3 (the second connector) of *Kataoka* in a partially-disconnected configuration. The first and second electrical contacts (not highlighted above) are separated by a short distance in this configuration. As shown, **first insulating barrier 43a (red)** of insulator 8a is pressed against the **second insulating barrier 43b (green)** by **connecting member 9 (purple)**.

Eldering, ¶163.

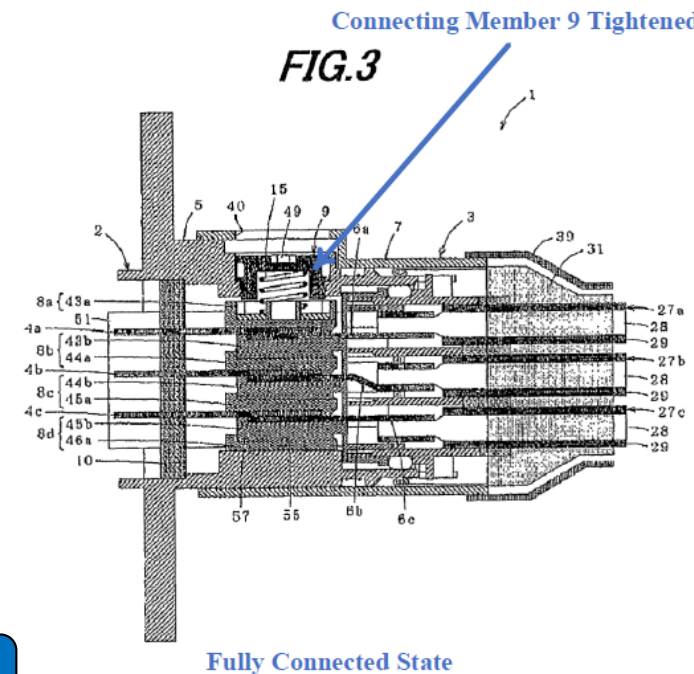
Petition at 85-86; EX2002 at 181:16-182:8, 183:1-4, 183:9-184:6, 184:8-19 (confirming that counsel made the diagram shown in the Petition)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Connecting Member 9 Presses Only When The Connectors Are Fully Connected

171. As discussed above with respect to Limitation 1[i], Kataoka's connecting member 9 does not press the alleged first and second insulating barriers against each other when the connectors 2, 3 are partially disconnected. (EX1005, Kataoka, at FIGS. 3 and 4A, 2:49-52, 3:22-26, 4:60-63, 6:9-14, 7:56-67, 8:10-12, 8:38-49, 14:49-65.) Kataoka's connecting member 9 is tightened only when the connectors 2, 3 are fully fitted together. (*Id.*) And when Kataoka's connecting member 9 is tightened, the electrical contacts of the connectors 2, 3 are pressed against each other, not the alleged first and second insulating barriers. (*Id.*)

After that, as shown in FIG. 3, when the male screw 48 of the connecting member 9 and the female screw 47 of the first terminal housing 5 are joined together and tightened by manipulating the connecting member 9



POR at 70-71; EX2001, ¶¶ 167-171;
EX1005 at FIGS. 3 and 4A, 14:49-52

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

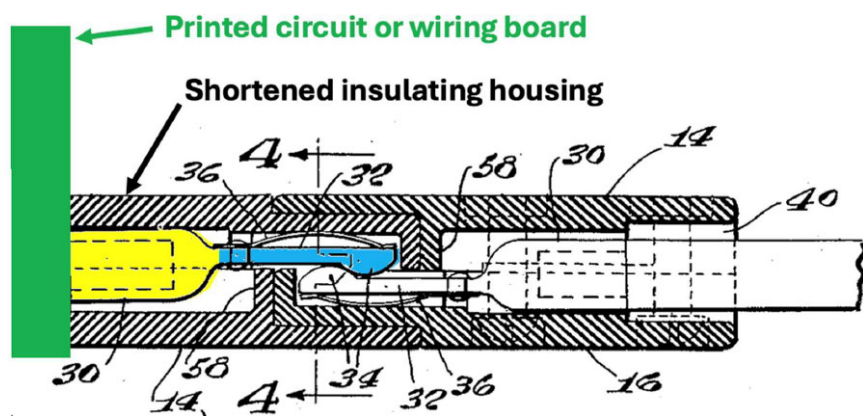
Dispute #9: Whether Petitioner Has Proven That
Winkler In View Of The Handbook Renders
Claims 8 And 10 Obvious

Claims 8 And 10

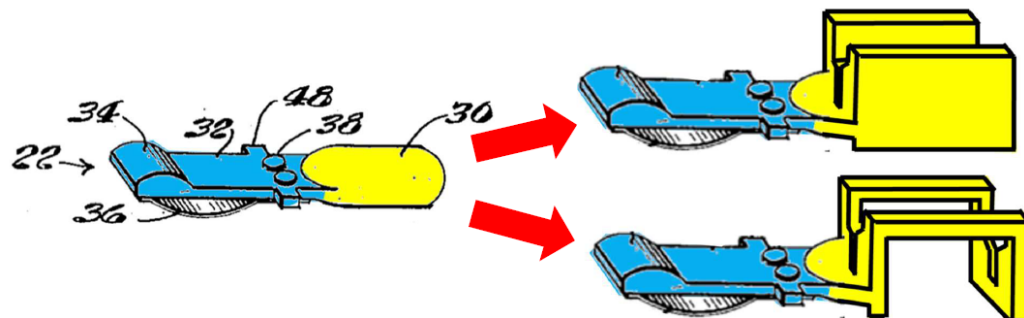
8. The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a terminal for soldering to a printed circuit or wiring board.

10. The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a terminal using insulation displacement for attaching a wire to the contact.

Petition: Obvious To Solder To A Board Or Use Insulation Displacement



Diagrams based on Winkler Fig. 2 (modified to show a **printed circuit or wiring board** in **green** soldered to **cylindrical end portion 30** in **yellow**)



Ex. 1004, portion of Fig. 3 (left), diagrams (right) created based on Ex. 1004, Fig 3 and Ex. 1008, Figs. 1.2(b), 9.26, and 9.24 (b) and (c) (showing **contact member 22** of Winkler (**blue**) modified to have an **insulation displacement terminal (yellow)** of the Handbook)

Petition at 43-55

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA Would Not Have Modified Winkler As Proposed

119. Winkler's electrical contacts require freedom of movement within the housing to effect engagement of the connectors 10, 12. (EX1004, Winkler, at 1:47-55 ("movably and yieldably mounting the terminals"); *id.* at 3:14-39 ("terminals movably supported therein").) Without this freedom of movement, it would be difficult, if not impossible, to mate the connectors 10, 12. At the very least, the forces required to mate the connectors 10, 12 would be so high that it would likely damage the connectors.

120. A POSITA would have recognized that soldering the cylindrical end portion 30 of one or more of Winkler's electrical contacts to a printed circuit or wiring board, as Petitioner and Dr. Eldering have proposed, would have interfered with, or altogether prevented, the freedom of movement of Winkler's electrical contacts.

With this construction it will be seen that when two identical connectors are engaged by extending the pockets 42, 44 of one connector into their respective sockets 54, 56 of the second connector, the rounded contacting faces 34 of each spring-pressed terminal are slidably engaged by each other, initial inward movement of the connectors effecting downward movement of the terminals in their respective pockets against the springs 36. Upon continued inward movement the high points of the curved portions pass by each other, and as the connectors approach full engagement, the springs 36 effect upward movement of the terminals in their pockets to present the curved portions 34 in hooked or interlocked relation to each other, as illustrated. The cable openings 40 and the pockets 42, 44 are formed to provide ample clearance about the terminals movably supported therein to permit lateral movement of the terminals toward and away from each other, as described, and in practice, the terminals may effect a slight rocking movement about their respective curved leaf springs 36 as the terminals are engaged.

POR at 47-50; EX2001, ¶¶ 117-126; EX1004 at 3:14-39

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Dispute #10: Whether Petitioner Has Proven
That Winkler In View Of Poliak Renders Claims
11 And 12 Obvious

Claims 11 And 12

11. The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a screw terminal for attaching a wire to the contact.

12. The connector pair of claim 1, wherein at least one of the first or second electrical contact is configured with a terminal using a spring mechanism for attaching at least one wire to the contact.

Petition: Winkler's Housing Modified To Have A Terminal

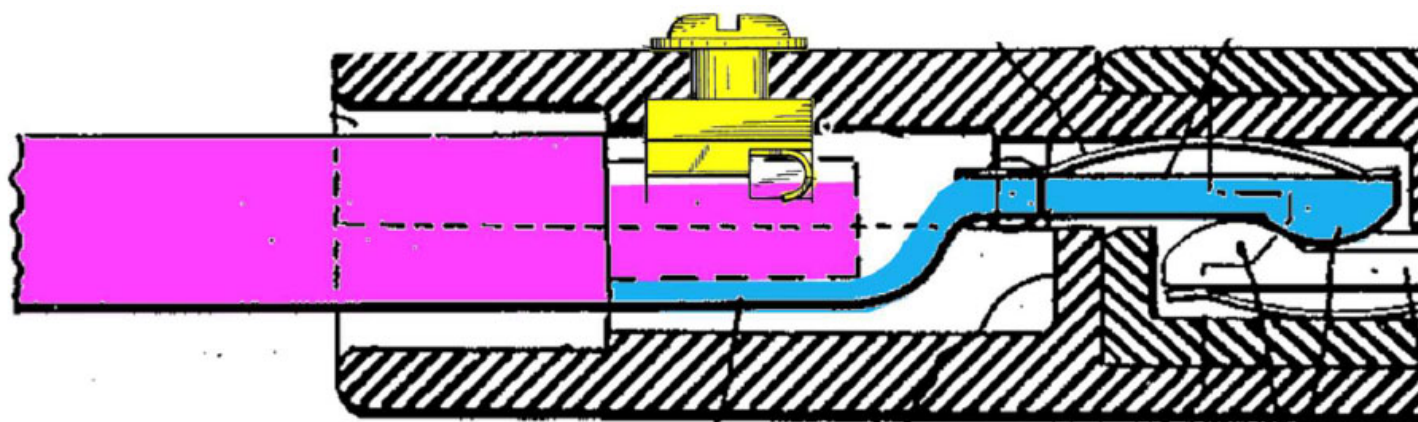


Diagram created based on Ex. 1004, Fig. 2 and Ex. 1007, Fig. 10 (annotated to show electrical contact in blue, cable 26 in pink and modified to add carriage 60 and spring 90 of Poliak in yellow)

Petition at 56-62

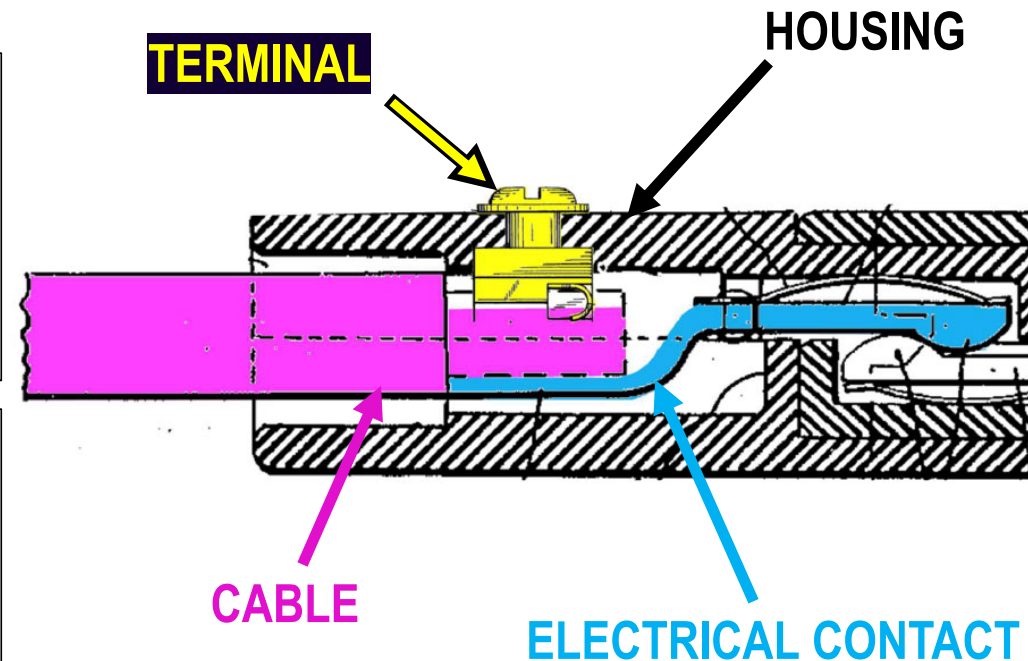
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Proposed Modifications Do Not Teach What Is Claimed

11. The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a screw terminal for attaching a wire to the contact.

12. The connector pair of claim 1, wherein at least one of the first or second electrical contact is configured with a terminal using a spring mechanism for attaching at least one wire to the contact.

Instead of proposing a modification to Winkler's *electrical contacts*, Petitioner proposed modifying Winkler's *housing* to include a screw terminal and a terminal with a spring mechanism, respectively. (*Id.*; see also Petition, 58-59, 61-62.)



POR at 50-53; EX2001, ¶¶ 128-138; Sur-Reply at 17-18; Petition at 59

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BizLink Technology, Inc.
v.
Anderson Power Products, Inc.
IPR2024-00687 (US 8,808,017)

PATENT OWNER'S DEMONSTRATIVE EXHIBIT