

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

Petitioner's Demonstratives

IPR2024-00687

U.S. Patent No. 8,808,017

BizLink

BIZLINK EXHIBIT 1028 **August 13, 2025**
BIZLINK v. ANDERSON POWER PRODUCTS
IPR2024-00687

1

Overview of '017 Patent

Patentee's illustration of prior art electrical connectors:

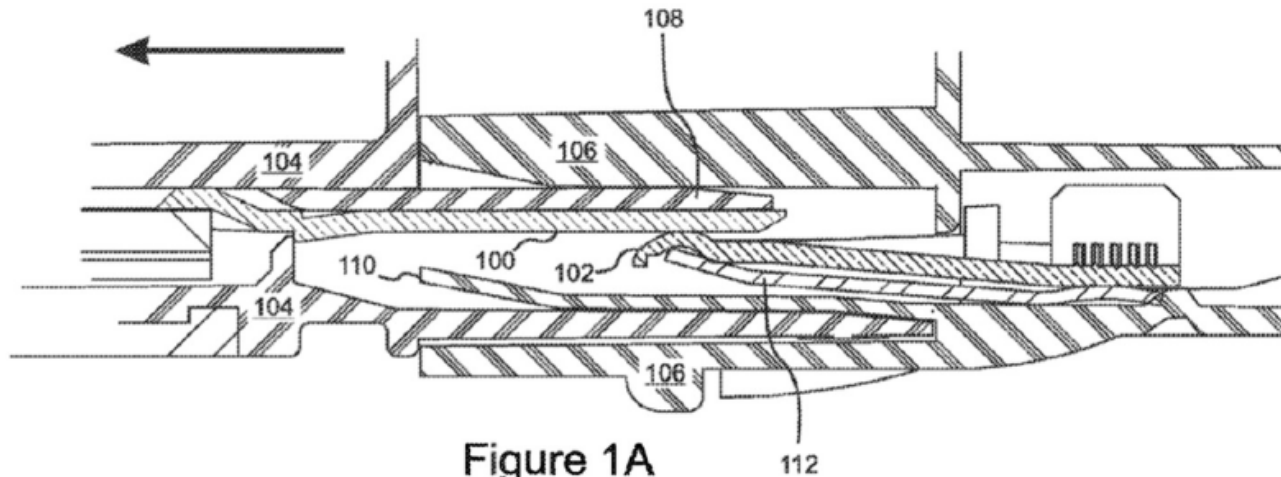


Figure 1A
Prior Art

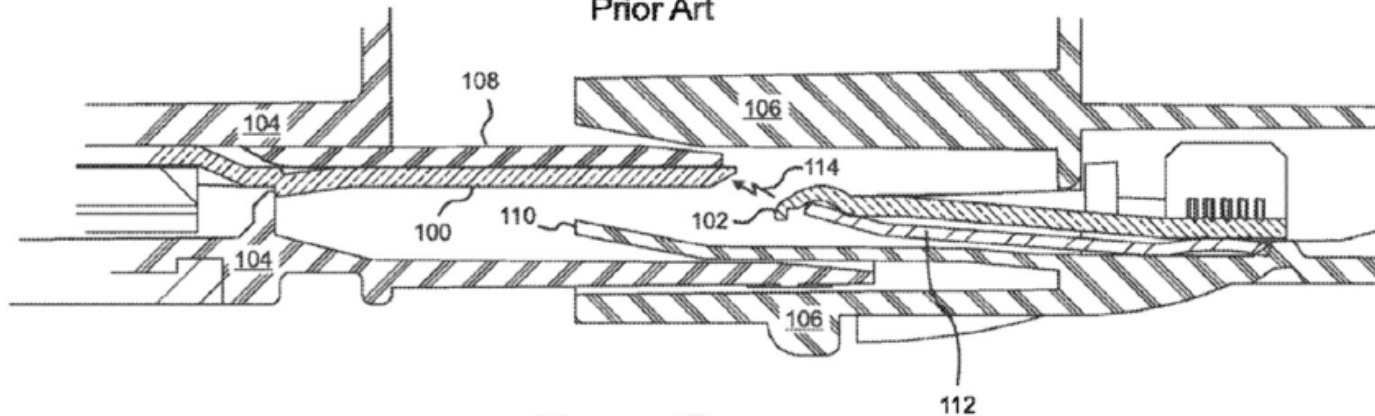


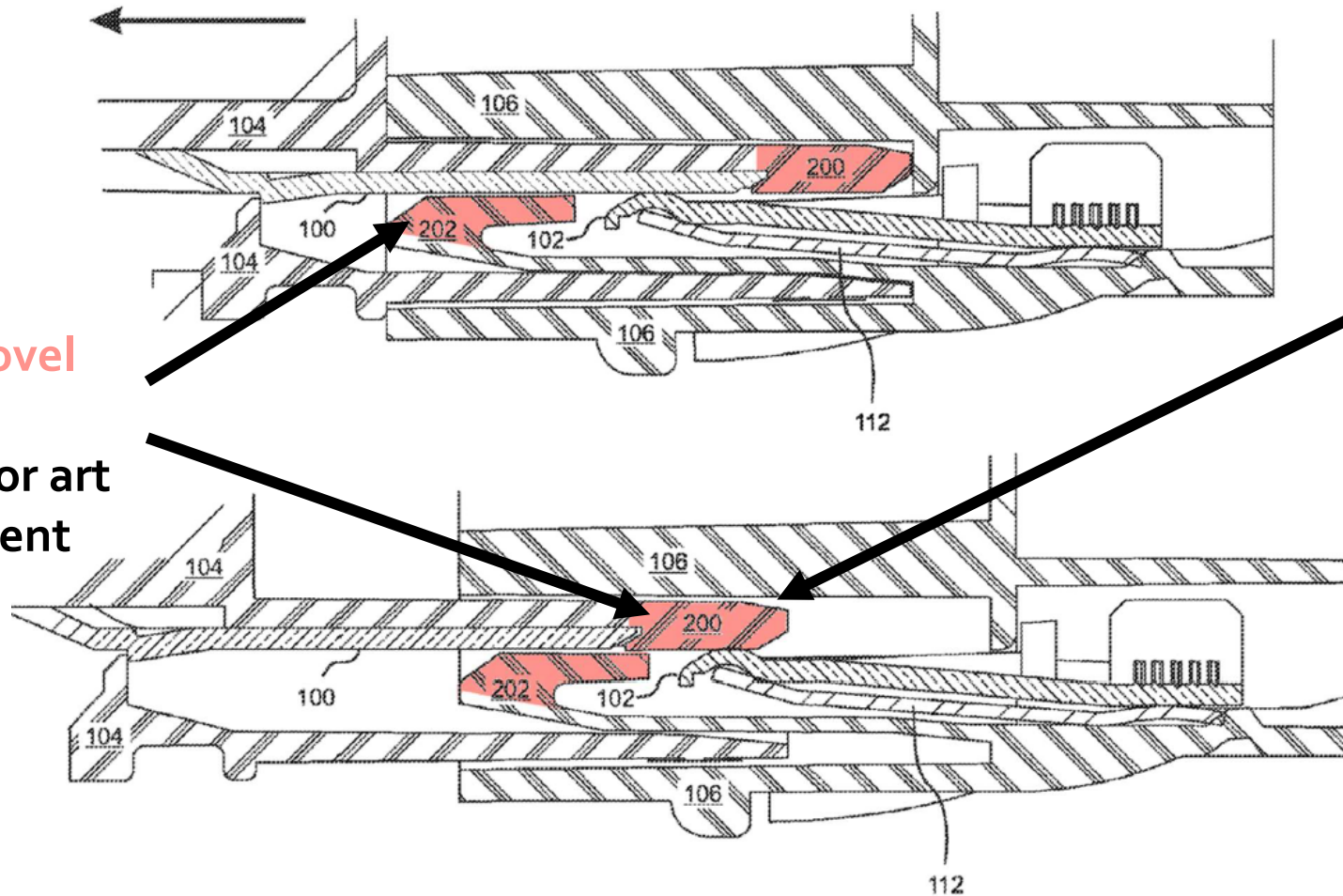
Figure 1B
Prior Art

Pet. at 9; Ex.1001 at Fig. 1A-1B

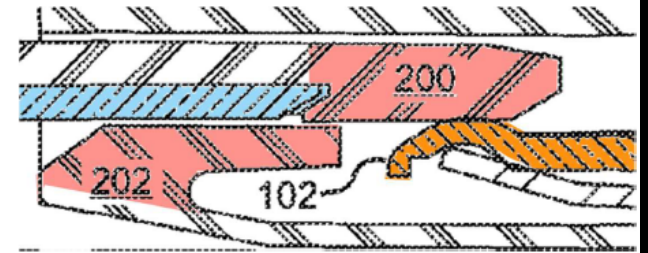
Overview of '017 Patent (cont.)

Patentee's illustration of the '017 patent modification to the prior art:

**Allegedly Novel
Difference
between prior art
and '017 Patent
claims**



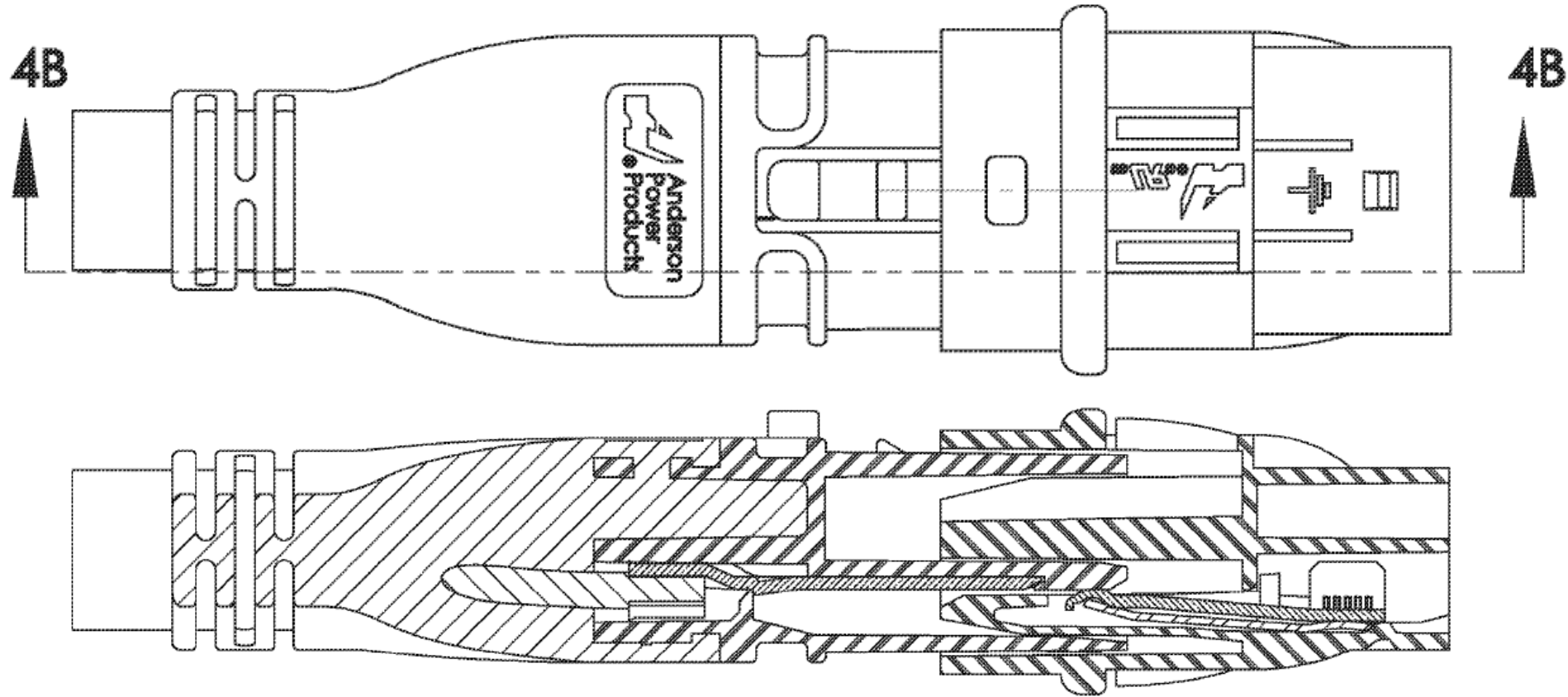
**Insulating barriers that
close through-air arcing
paths**



Pet. at 10-11; Ex.1001 at Fig. 2A-2B

Overview of '017 Patent (cont.)

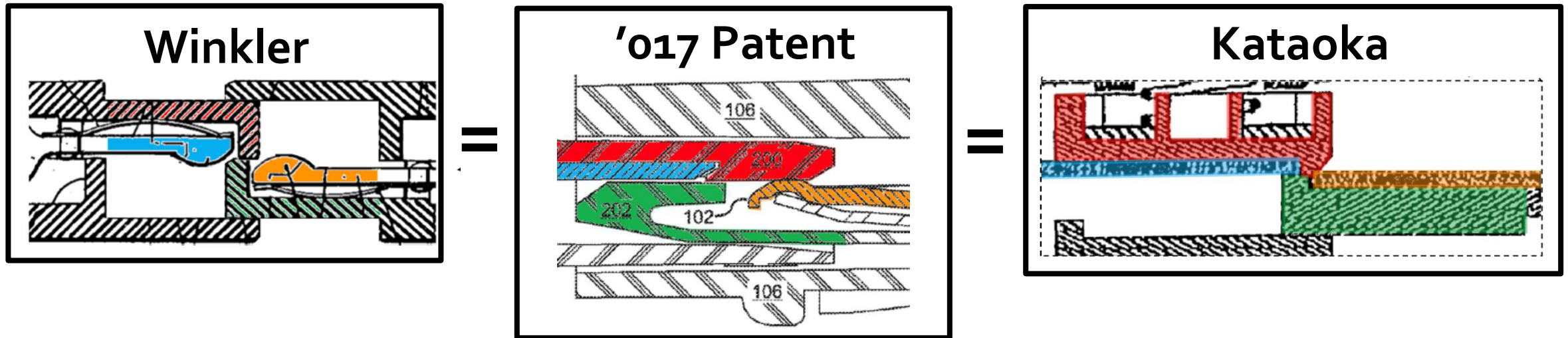
'017 patent illustrations of the claimed embodiments:



Ex.1001 at Figs. 4A, 4B

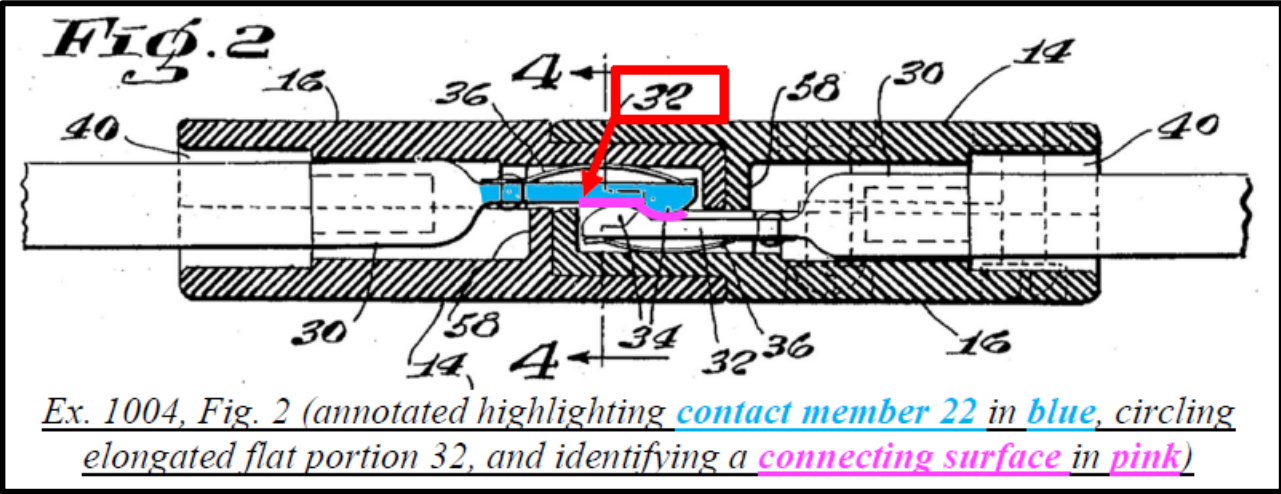
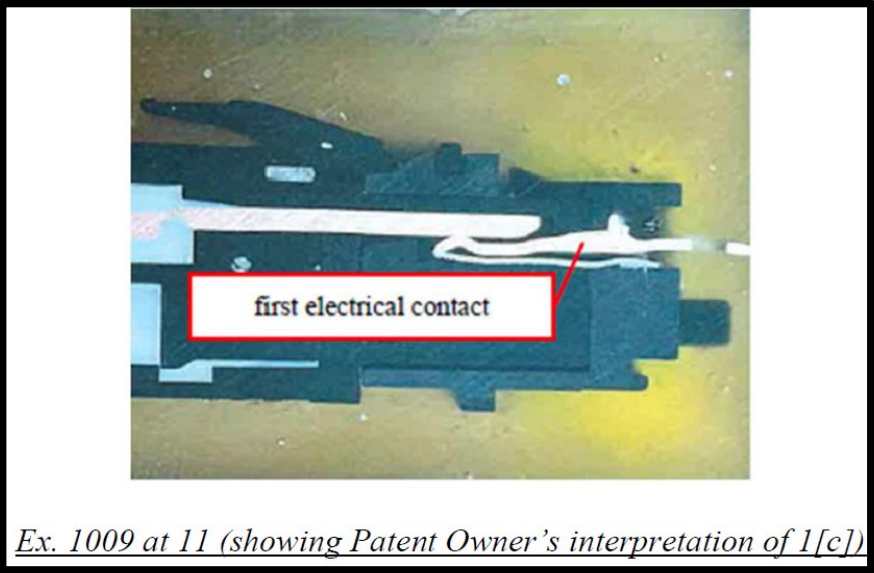
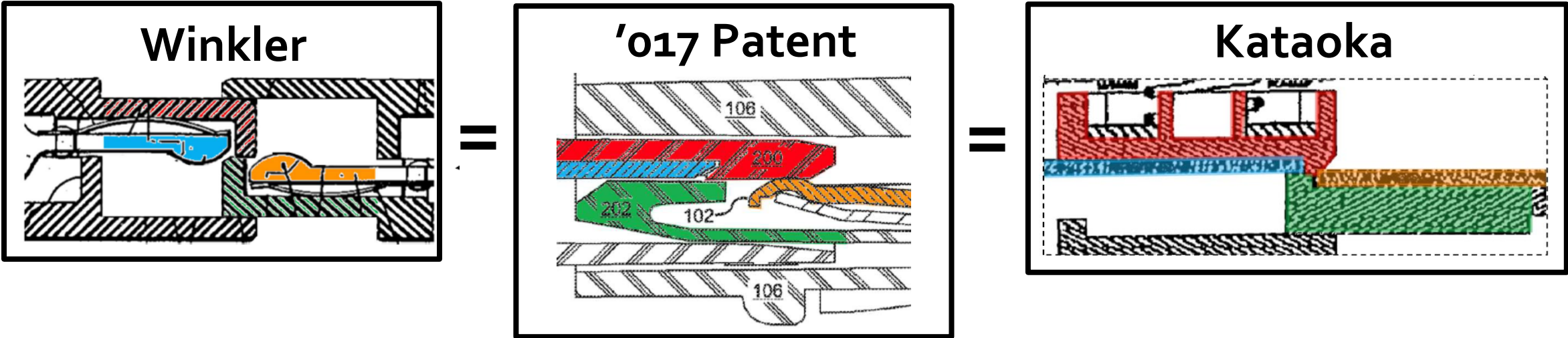
Winkler and *Kataoka* each Anticipate Claim 1

Winkler and *Kataoka* each disclose the claimed **first** and **second** insulating barriers configured for “blocking substantially all through-air arcing paths between the **first** and **second** electrical contacts”:



Pet. at 15, 33, 34

Petition = True to Patent & Patentee's Positions



Patent Owner's Contradictory Arguments

Patent Owner's Litigation Position:

"Gaps are OK"

"[T]he claimed insulating barriers **need not be in physical contact**"

"[A]t no point did Plaintiff assert that the claims of the '017 patent preclude a '**gap**' between the insulating barriers."

PR at 18; Ex.1026 at 7-9

Patent Owner's IPR Position:

"No Gaps Allowed"

"Winkler's actual disclosures and figures show **appreciable gaps**"

"Winkler Figure 4 shows there is **an appreciable gap between the pockets 42** (i.e., the alleged insulating barriers) of connectors 10, 12."

In *Kataoka*, "A POSITA would have understood that the '**gaps**' between insulators 8a-d **create through-air arcing paths** between the first and second electrical contacts"

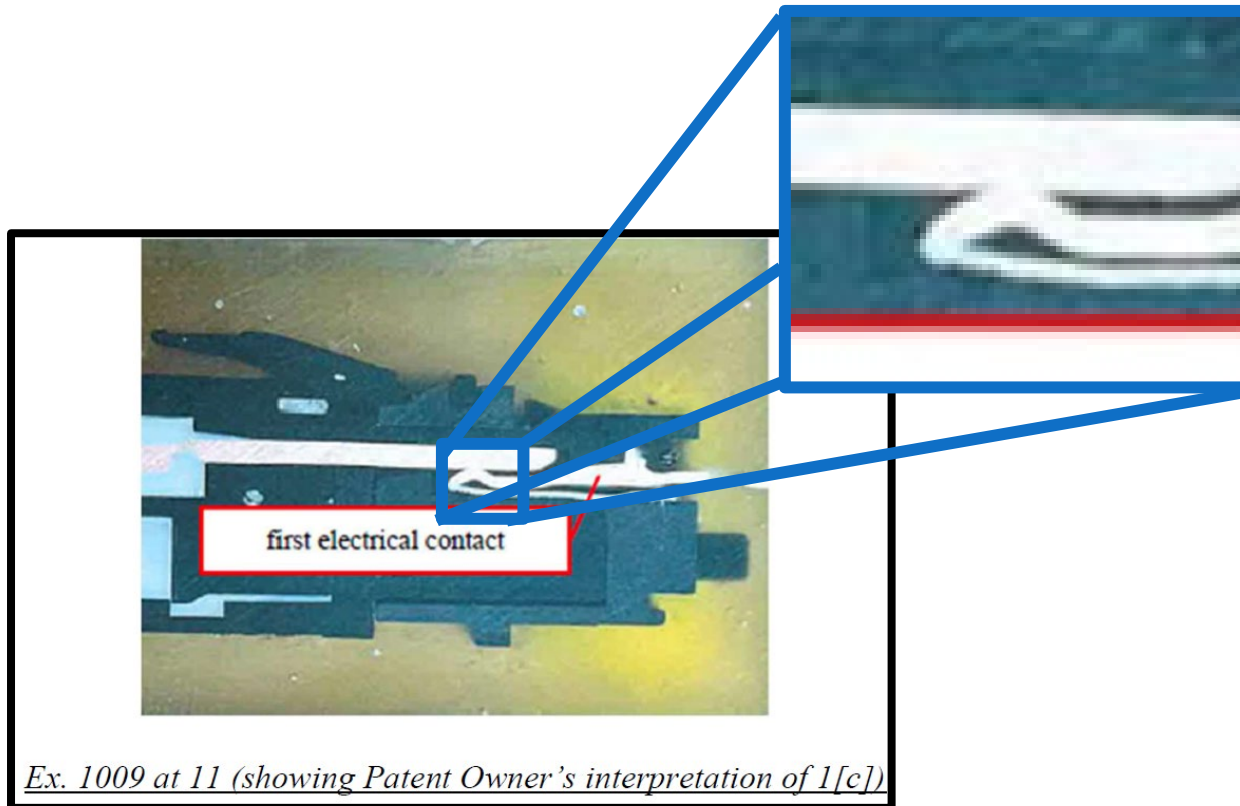
POR at 46, 65

PR at 25

POSR at 13

Patent Owner's Contradictory Arguments (cont.)

Patent Owner's Litigation Position:
The **rounded end** of a “first electrical contact”
connects with a second electrical contact



Patent Owner's IPR Position
(after changing its litigation contentions):
Opposite interpretation

“PO does not read a “round convex portion”
on the claimed “connecting surface” in the
Litigation.”

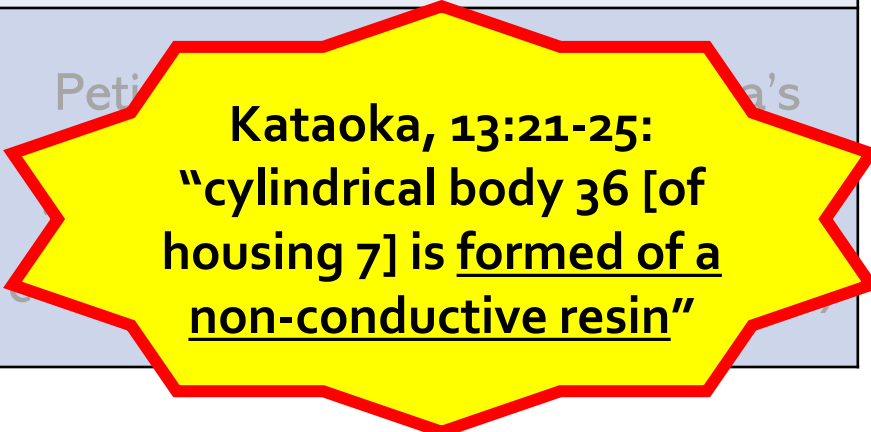
Pet. at 26; Ex.1009 at 11
POSR at 7

Grounds and Board's Preliminary Findings

Ground No.	Basis	Prior Art	Claims	Institution Decision Finding
1A	§102	<i>Winkler</i> (Ex. 1004)	<u>1</u> -4, 9	Likely anticipated by <i>Winkler</i> (instituted)
1B	§103	<i>Winkler</i> + <i>Winkler2</i> (Ex. 1006)	7	Not addressed
1C	§103	<i>Winkler</i> + Electrical Connector Handbook (Ex. 1008)	8, 10	Not addressed
1D	§103	<i>Winkler</i> + <i>Poliak</i> (Ex. 1007)	11, 12	Not addressed
2A	§102	<i>Kataoka</i> (Ex. 1005)	<u>1</u> -4	Preliminarily found “insulating housing” (claim 1) missing based on new claim construction of “insulating” in POPR
2B	§103	<i>Kataoka</i> + Handbook	7-10	

Pet. at 18-19; DI at 29-31

Grounds and Board's Preliminary Findings

Ground No.	Basis	Prior Art	Claims	Institution Decision Finding
1A	§102	<i>Winkler</i> (Ex. 1004)	<u>1</u> -4, 9	Likely anticipated by <i>Winkler</i> (instituted)
1B	§103	<i>Winkler</i> + <i>Winkler2</i> (Ex. 1006)	7	Not addressed
1C	§103	<i>Winkler</i> + Electrical Connector Handbook (Ex. 1008)	8, 10	Not addressed
1D	§103	<i>Winkler</i> + <i>Poliak</i> (Ex. 1007)	11, 12	Not addressed
2A	§102	<i>Kataoka</i> (Ex. 1005)	<u>1</u> -4	 Kataoka, 13:21-25: “cylindrical body 36 [of housing 7] is <u>formed of a non-conductive resin</u>”
2B	§103	<i>Kataoka</i> + Handbook	7-10	

PR at 21-23; Ex.1022 at 120:1-6

Independent Claim 1 – Most Elements **Undisputed**

Element		Winkler (1A)	Kataoka (2A)
1[pre]	An electrical connector pair, comprising:		
1[a]	a first connector having a first insulating housing;		
1[b]	a first electrical contact supported within the first insulating housing,		
1[c]	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;		
1[d]	a second connector having a second insulating housing;		"Insulating"
1[e]	a second electrical contact supported within the second insulating housing,		
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;	"Connecting surface"	
1[g]	a first insulating barrier within the first connector extending beyond and covering the leading end of the first electrical contact; and	"Within"	
1[h]	a second insulating barrier extending beyond the second electrical contact within the second connector,		
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.	Anticipation supported by diagrams	

Independent Claim 1 Disputed Limitations

Issue	Description	Limitation	Resolution
1	<i>Winkler's</i> disclosure of "laterally engage with a connecting surface"	1[f]	<i>Winkler</i> depicts "lateral engagement with a connecting surface" in the figures. - PO attempts to redefine the connecting surface, but limitation taught regardless. PR at 3-5, 12-14; Pet. at 23-26, 28-30
2	<i>Winkler's</i> insulating barriers "within" the first and second connectors	1[g], 1[h]	- No support for PO's IPR-driven construction <i>Winkler</i> discloses even under PO's construction PR at 3-5, 12-14
3	<i>Kataoka's</i> disclosure of an "electrically insulating" housing (under PO's construction)	1[d]	- Construction of "insulating" is unnecessary, and PO's construction is overly narrow. <i>Kataoka</i> meets PO's construction PR at 2-3, 21-23; Ex.2006 at 13:21-25; Ex.1022 at 120:1-6
4	Petition diagrams based on <i>Winkler</i> and <i>Kataoka</i>	1[i]	- Dr. Eldering testified about how a POSITA would have understood the <i>Winkler</i> and <i>Kataoka</i> figures - Mr. Locati did not provide alternative figures.

PR at 14-17; Pet. at 32-34, 78-83

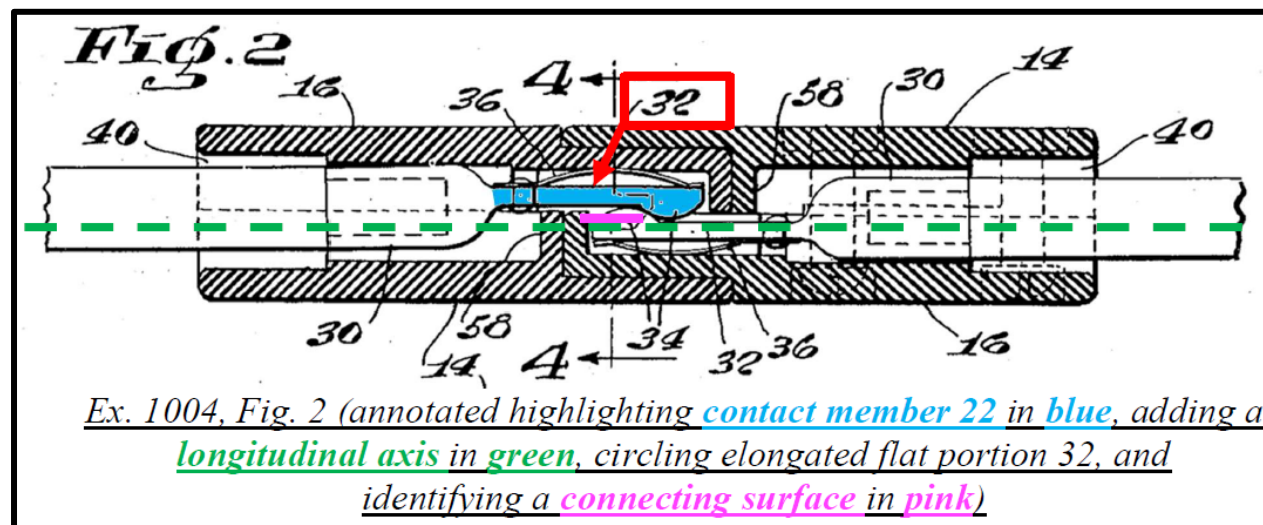
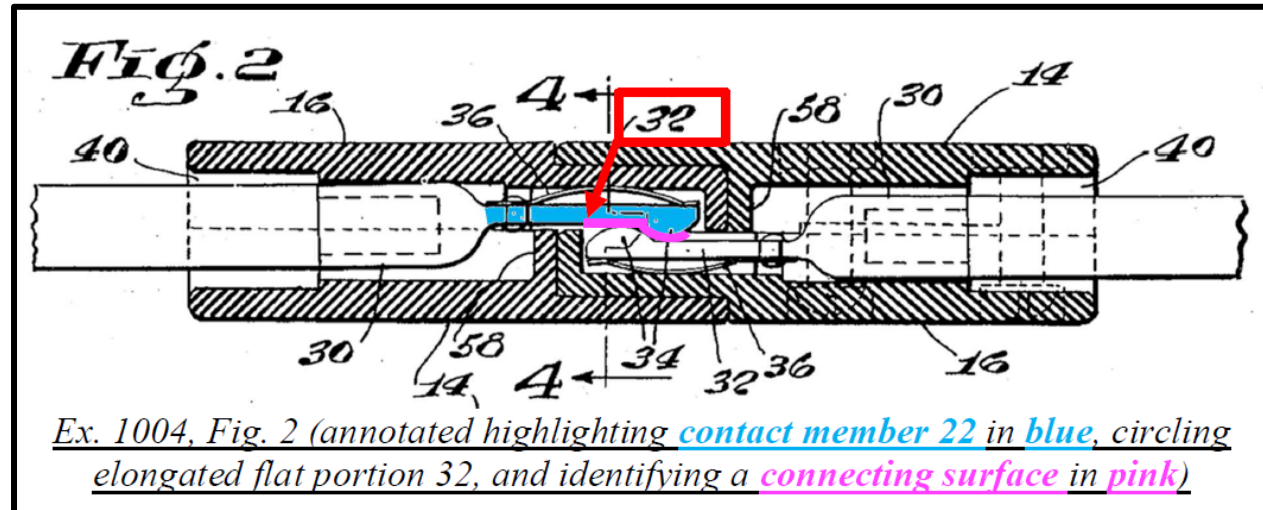
12

Issue 1:

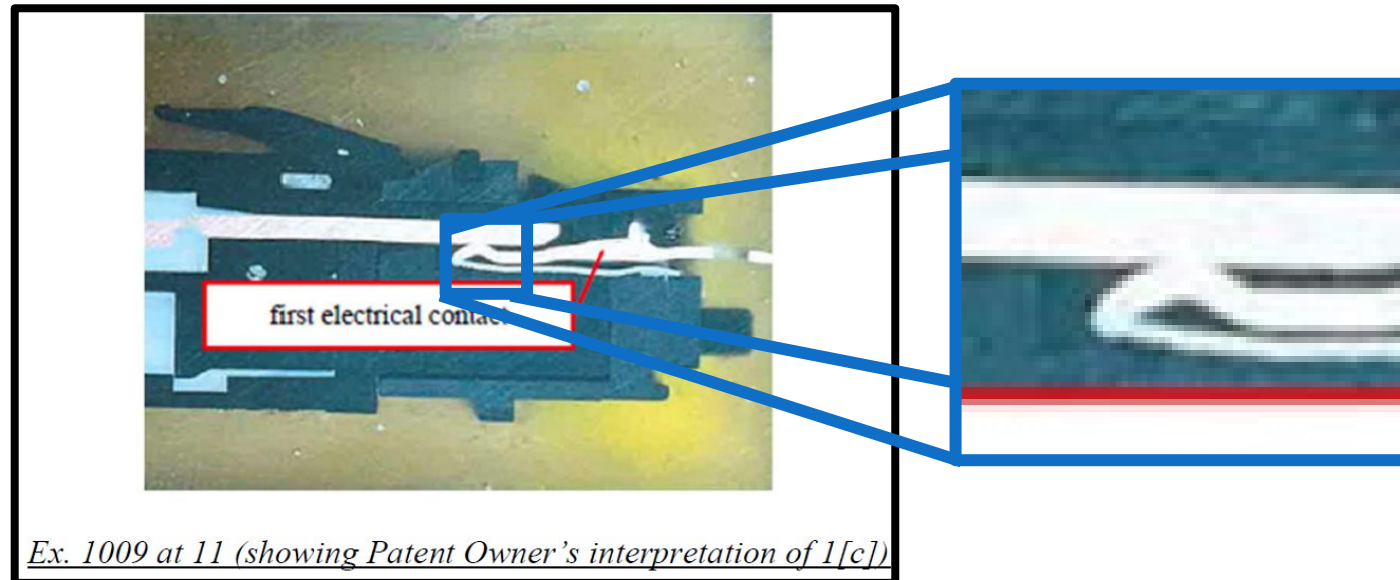
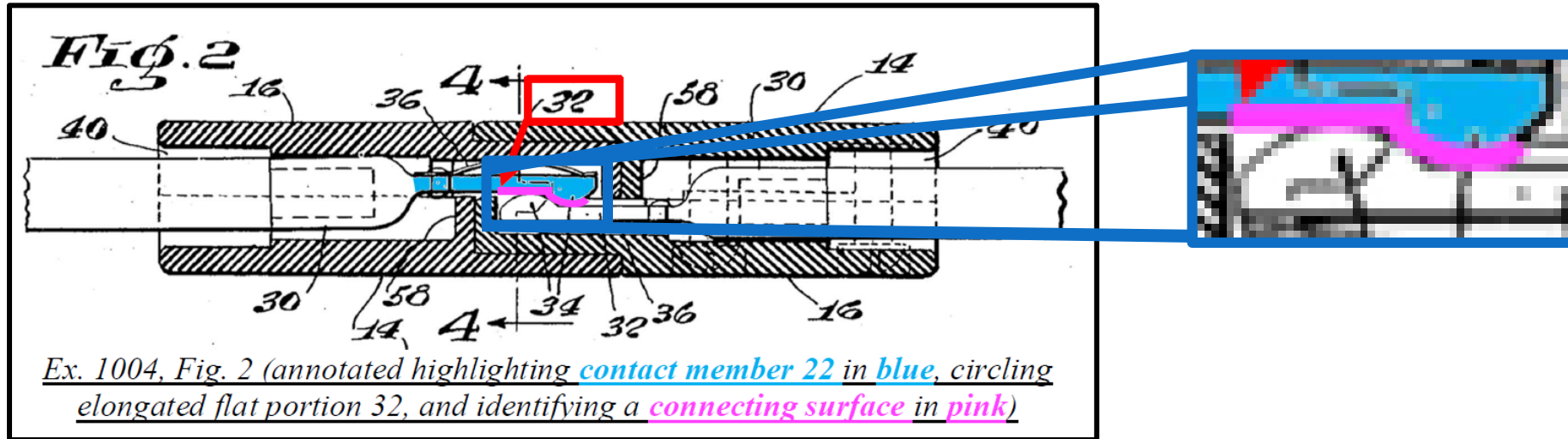
***Winkler* discloses a “second electrical contact being configured to laterally engage the connecting surface [of a first electrical contact]” ([1f])**

Ground 1A: Independent Claim 1

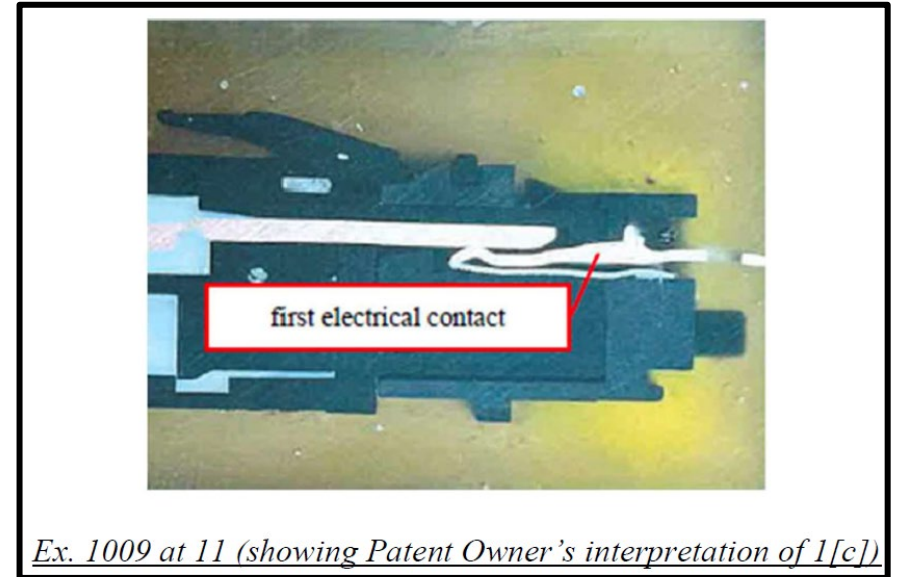
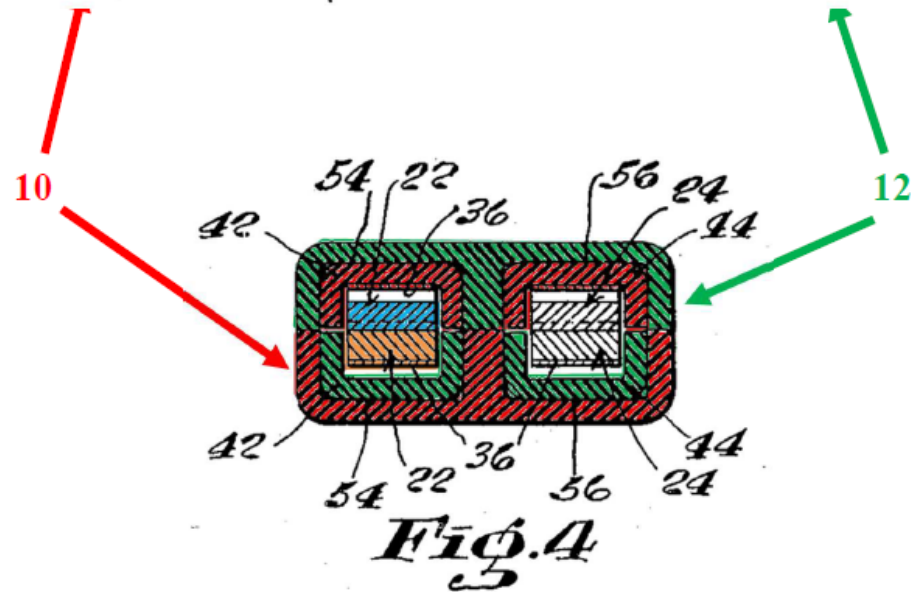
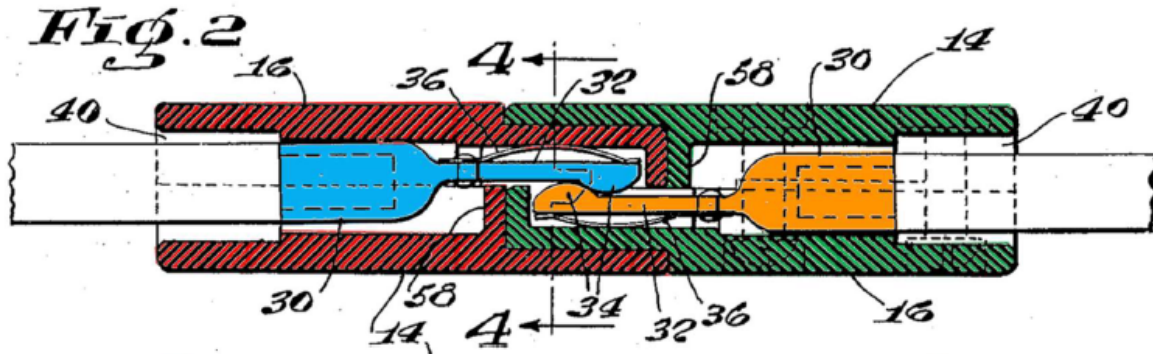
Petition Mapping of *Winkler* to “Connecting Surface”



Petition Mapping of *Winkler* to “Connecting Surface”



Lateral Engagement to *Winkler's* “Connecting Surface”



Ex. 1009 at 11 (showing Patent Owner's interpretation of 1[c])

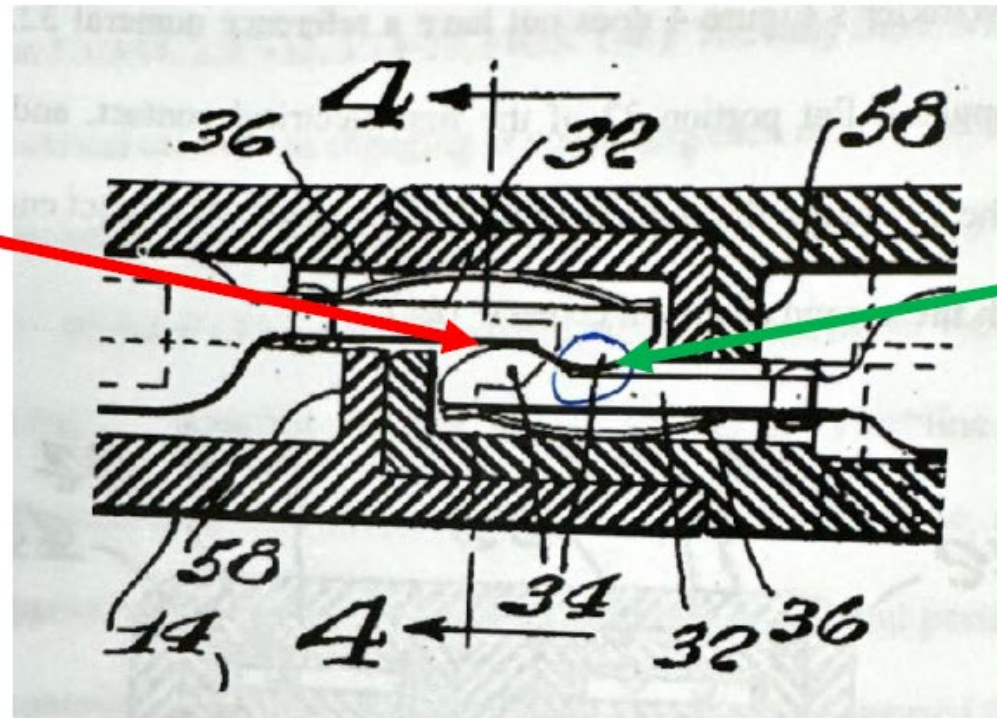
*Ex. 1004, Fig. 2 (annotated highlighting **first connector 10** in **red** mated with **second connector 12** in **green**, the **first connector** having a **first electrical contact** in **blue** that laterally engages with a **second electrical contact** in **orange**)*

Pet. at 26, 28-29

Lateral Engagement to *Winkler's* “Connecting Surface”

Even under PO's narrow interpretation of the connecting surface, no basis for Patent Owner's assertion of a “gap” in *Winkler's* Figure 4:

Area of contact between the curved portion of the second electrical contact and the flat portion of the first electrical contact



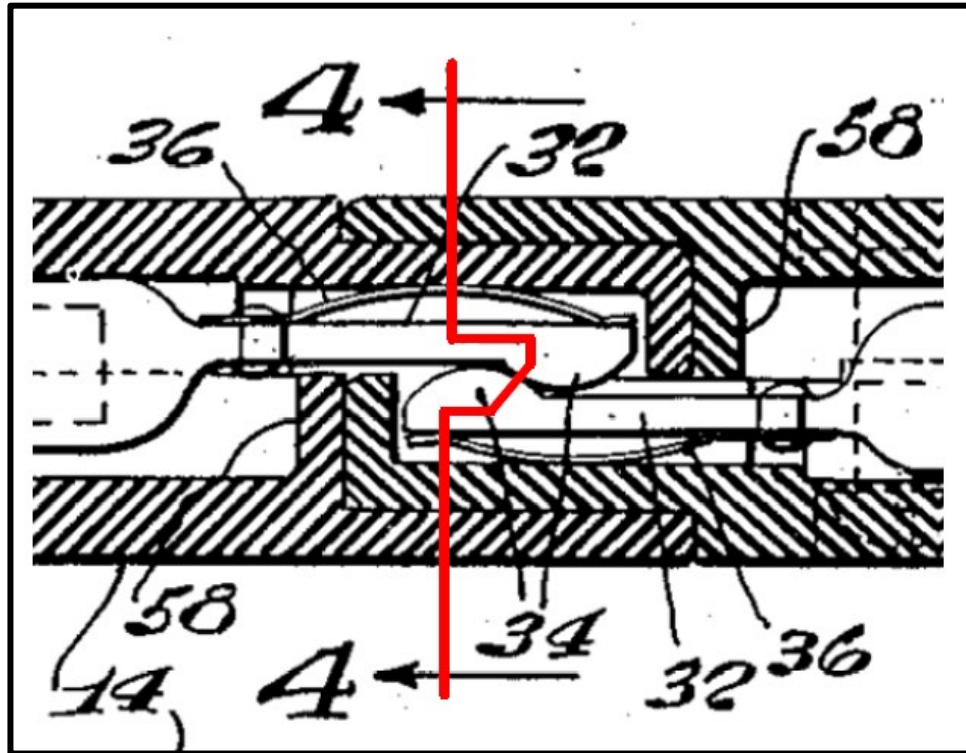
Only “gap” Mr. Locati identified at his deposition

Ex.1022, 62:10-23; Ex.1025, 9.

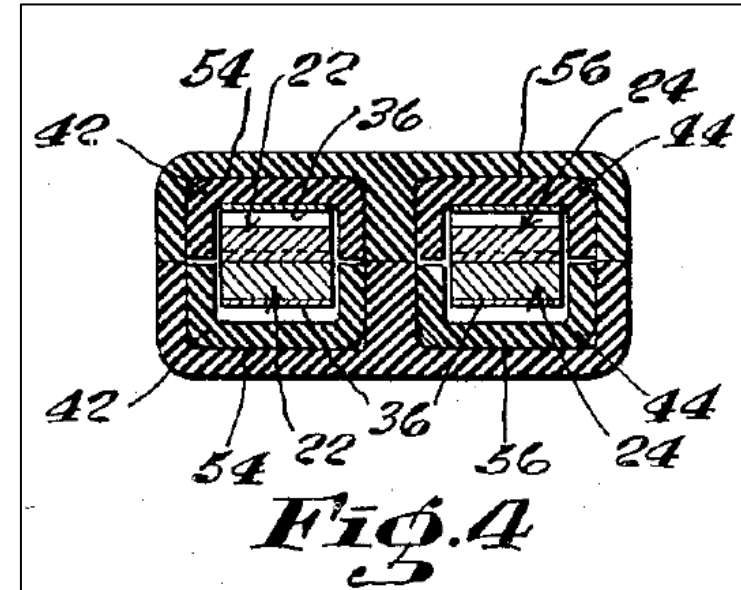
PR at 9

Lateral Engagement to *Winkler's* “Connecting Surface” (cont.)

Patent Owner's unsupported interpretation of line 4-4 in Winkler Fig. 2 nevertheless confirms anticipation.



POR at 29



POR at 29
PR at 7-8

Issue 2:

Winkler discloses “a first insulating barrier within the first connector” (1[g])

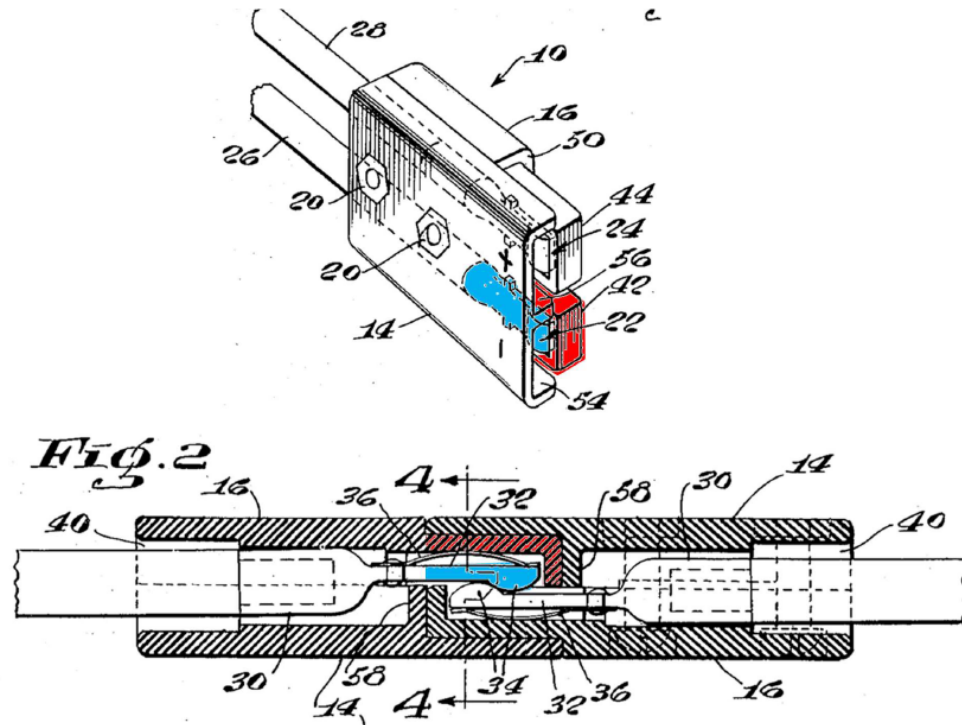
And

“a second insulating barrier . . . within the second connector” (1[h])

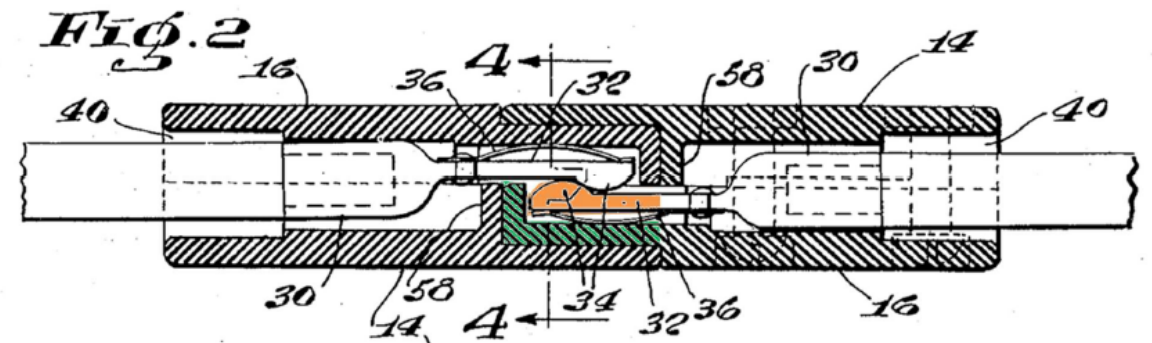
Ground 1A: Independent Claim 1

Petition Mapping of *Winkler* to “Insulating Barrier(s)”

Both the first insulating barrier and second insulating barrier are “within” the electrical connector.



Ex. 1004, portion of Fig. 1 (top), Fig. 2 (bottom) (annotated highlighting **contact member 22** in **blue**, and **receiving pocket 42** in **red**)

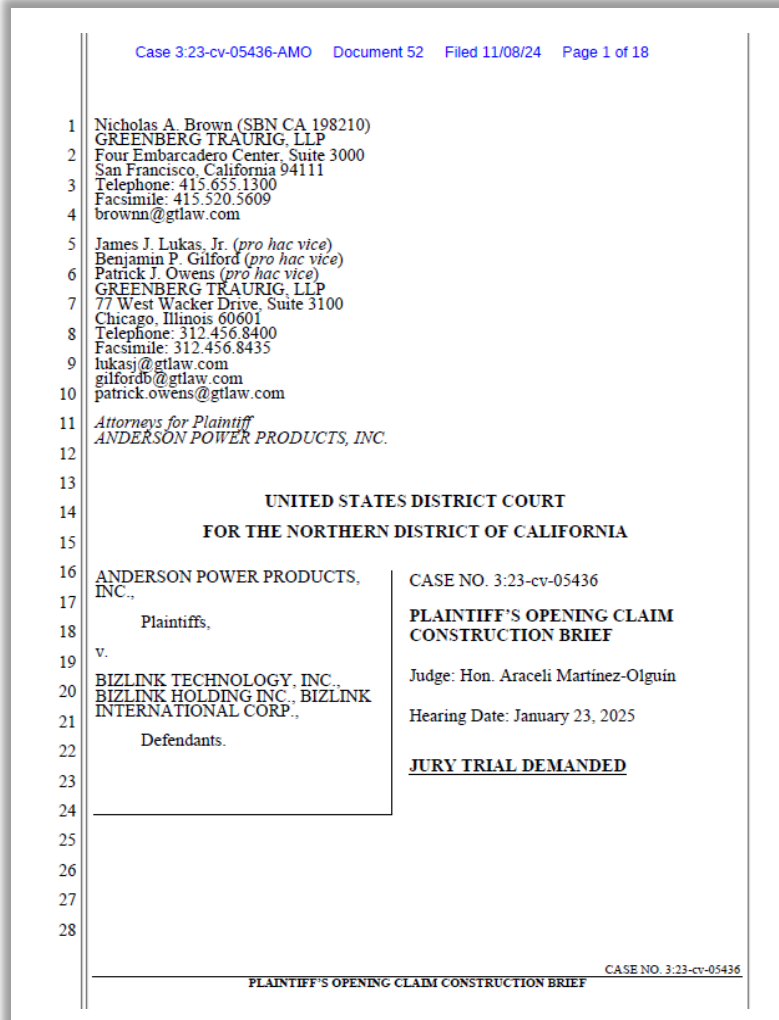


Ex. 1004, Fig. 2 (annotated highlighting **contact member 22** of a second connector in **orange**, and **receiving pocket 42** of the second connector in **green**)

Construction of “Within” is Improper

The '017 patent does not support construing “within” as “on the inside of”

- “Within” is a common word not requiring construction
 - No proposed construction in related litigation
- The '017 patent specification does not define or limit “within”
- The figures do not represent a clear disavowal of claim scope
- PO does not dispute that *Kataoka's* insulating barriers are “within”



26 banc). The Federal Circuit “indulge[s] a ‘heavy presumption’ that claim terms carry their
27 full ordinary and customary meaning.” *Omega Eng’g v. Raytek Corp.*, 334 F.3d 1314, 1323
28 (Fed. Cir. 2003). The specification is usually “dispositive” and is “the single best guide to

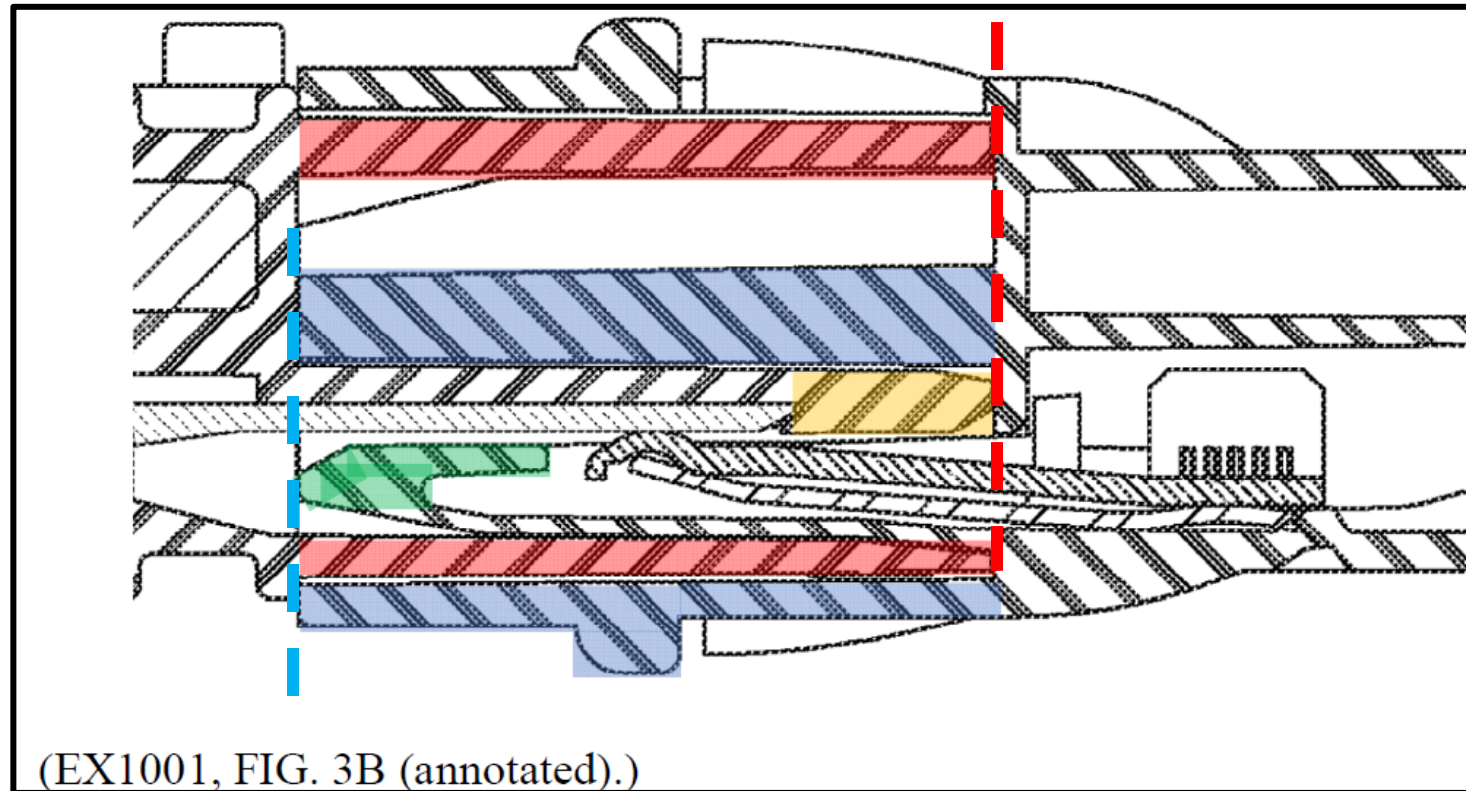
5
PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF

16 meaning. There are only two exceptions to the general rule that claim terms must be given
17 their plain and ordinary meanings: lexicography and disavowal. *Hill-Rom*, 755 F.3d at
18 1371. Neither exception is applicable here.

Ex. 1023 at 5, 11

“Within” Does Not Mean “On the Inside” in the ‘017 Patent

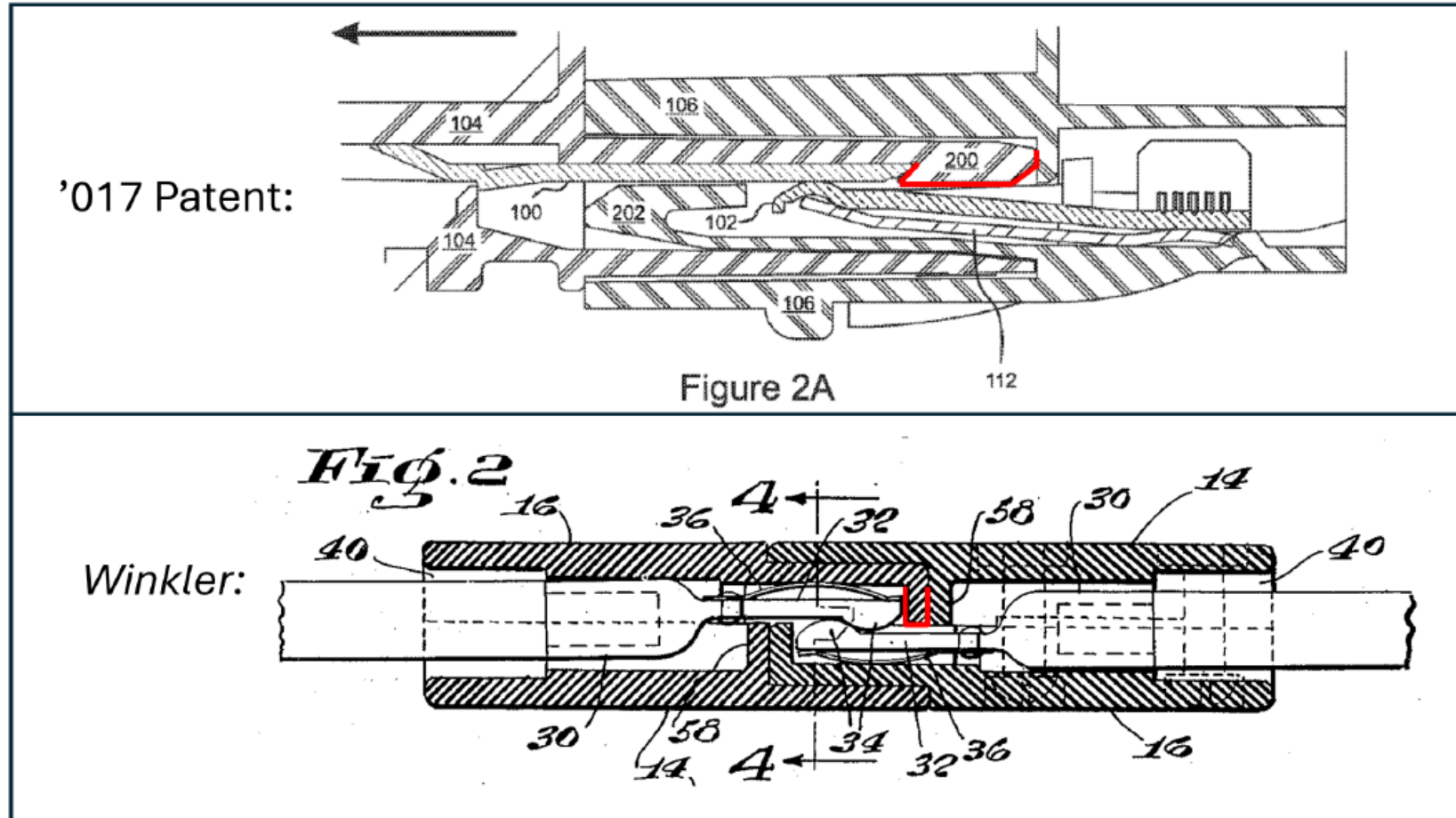
Patent Owner’s diagram confirms that the ‘017 patent insulating barriers are flush with the end of the housing at each connector end:



POSR at 11 (coloring originally added by Patent Owner, dashed lines added by Petitioner)

Winkler Discloses the Claimed Barriers

Winkler discloses the same barrier structure as shown in the '017 patent figures



Issue 3:

***Kataoka* discloses “a second insulating housing” (1[d])**

Ground 2A: Independent Claim 1

“Insulating” Means “Protecting”

Board's Preliminary Construction (Institution Decision)	Petition discussions of “Insulating housing” in 1[a]	Multiple contexts of “insulating” in claim 1
“insulating” requires “electrically insulating”	“Housing 5 of first connector portion 2 surrounds and protects the internal contacts from the environment” Pet., 64. “Housing 5 includes cylindrical body and a terminal housing waterproof structure 21 that protect the electrical terminals from elements such as water.” Pet., 64-65. “The ‘017 patent states that “[i]nsulated 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.”” Pet. 65 (citing Ex. 1001, 3:2-6.)	“insulating housing” (1[a], 1[b], 1[c], 1[d], 1[e]) “insulating barrier” (1[g], 1[h], 1[i])

“Insulating” Means “Protecting”

The Petition interpreted “insulating” in “insulating housing” under the plain and ordinary meaning:

- Surrounds components
- Protects electronics from elements (e.g. water)
- Protection to user if arcing occurs between connector pair
- Non-conductive

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

Ex. 1005, 9:38-45 As shown above, housing 5 surrounds components of the

connector. Housing 5 of first connector portion 2 surrounds and protects the

internal contacts from the environment. Housing 5 includes cylindrical body 20

and a terminal housing waterproof structure 21 that protect the electrical terminals

from elements such as water. Ex. 1005, 12:34-43. Eldering, ¶135.

In the '017 patent, “insulated housings” have the same functionality and purpose as in *Kataoka*. The '017 patent states that “[i]nsulated 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.’ Ex. 1001, 3:2-6. *Kataoka*’s housing 5

serves the same purposes, and thus *Kataoka* discloses 1[a]. Eldering, ¶136.

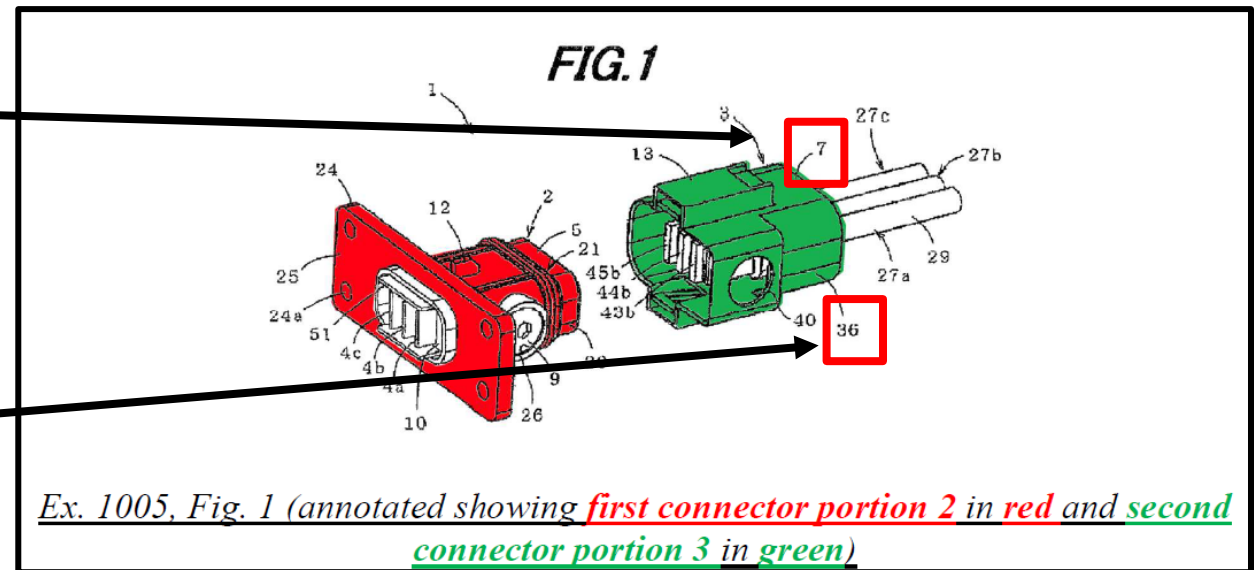
Pet at 64-65

Kataoka's Second Housing is Made of Non-Conductive Resin

Patent Owner's construction of "insulating" does not dispose of Ground 2A.

Mr. Locati:

16 Okay. So 7 is the -- start over.
17 So in Figure 1, the portion marked with
18 the Number 7 is the second terminal housing as
19 described in Kataoka, right?
20 A. As described by Kataoka.
21 Q. Okay. And Kataoka indicates that
22 that second terminal housing has a cylindrical
23 body portion that's identified as 36, right?
24 A. I believe Kataoka describes that as
25 a design option, yes.



Pet at 16
Ex.1022 at 119:16-25

Kataoka's Second Housing is "Electrically Insulating"

For shielding performance, heat dissipation and weight saving of the connector 1, the cylindrical body 36 is preferably formed of light metal having high electrical and thermal conductivity such as aluminum, but may be formed of resin. 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.

Ex.1005 at 13:17-25
Ex.1022 at 120:1-25
PR at 23

2 Q. And Kataoka indicates that the
3 cylindrical body identified by 36 may be formed
4 from a nonconductive resin, right?

5 A. I believe that it does, at least
6 that portion of that specific housing. I was
7 trying to find it within the specification, but
8 it's somewhat cumbersome.

9 Q. Yeah.

10 So if we look at Column 13, around
11 line 21 --

12 A. Thank you.

13 Q. Sure.

14 It says: Since the cylindrical body 36 is
15 formed of a nonconductive resin.

16 See that?

17 A. In 20 -- yes. And may be formed of
18 resin.

19 Q. Yeah.

20 A. But it's alternatively formed of or
21 made of metal, yes.

22 Q. And you understand that a
23 nonconductive resin would be electrically
24 insulating, right?

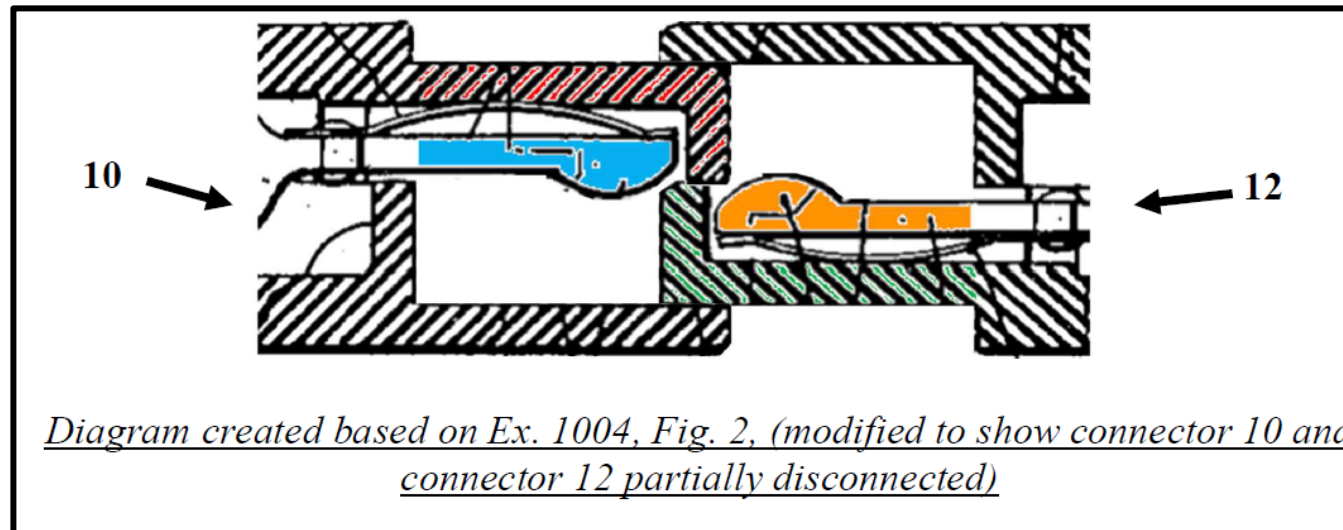
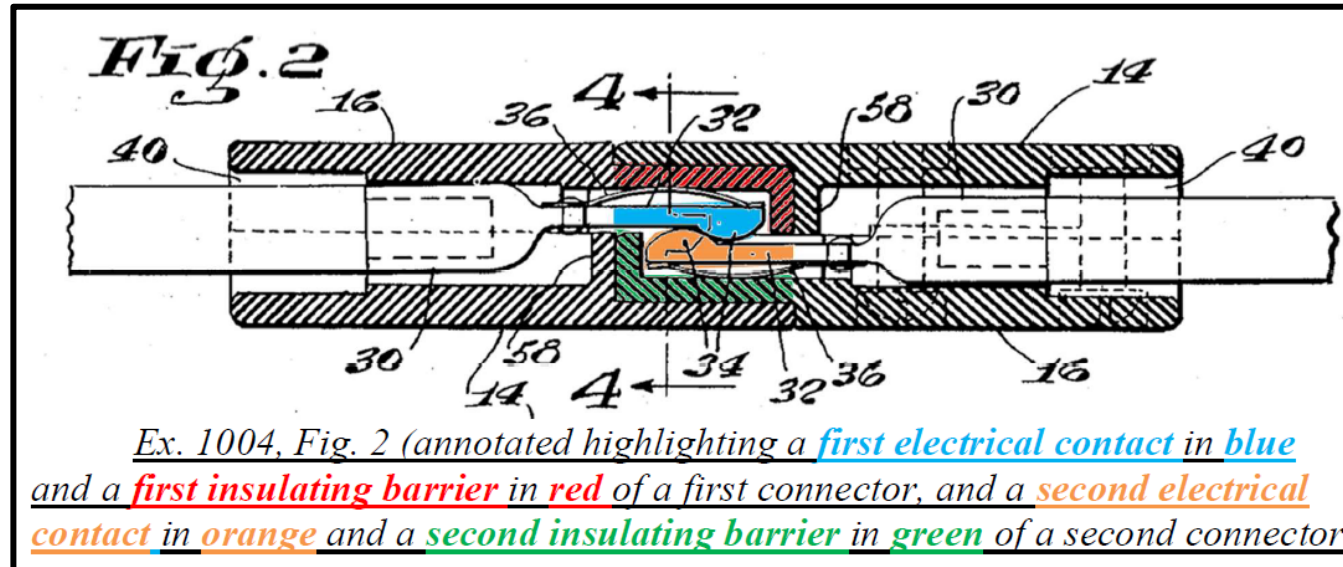
25 A. Most likely, yes.

Issue 4:

**Diagrams based on *Winkler* and *Kataoka* establish
anticipation of 1[i]**

Grounds 1A and 2A: Independent Claim 1

Winkler diagram for 1[i]



Kataoka diagram for 1[i]

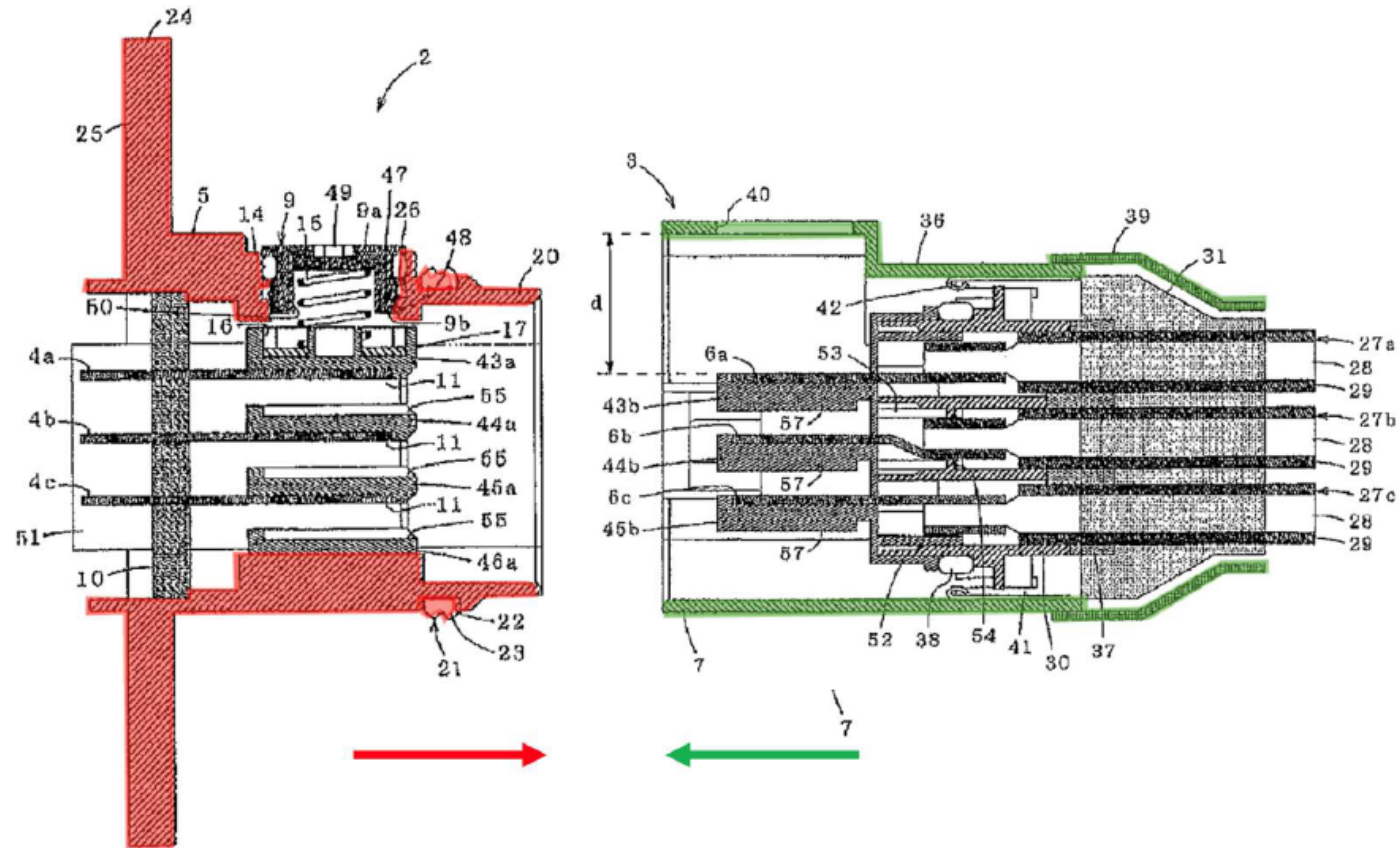
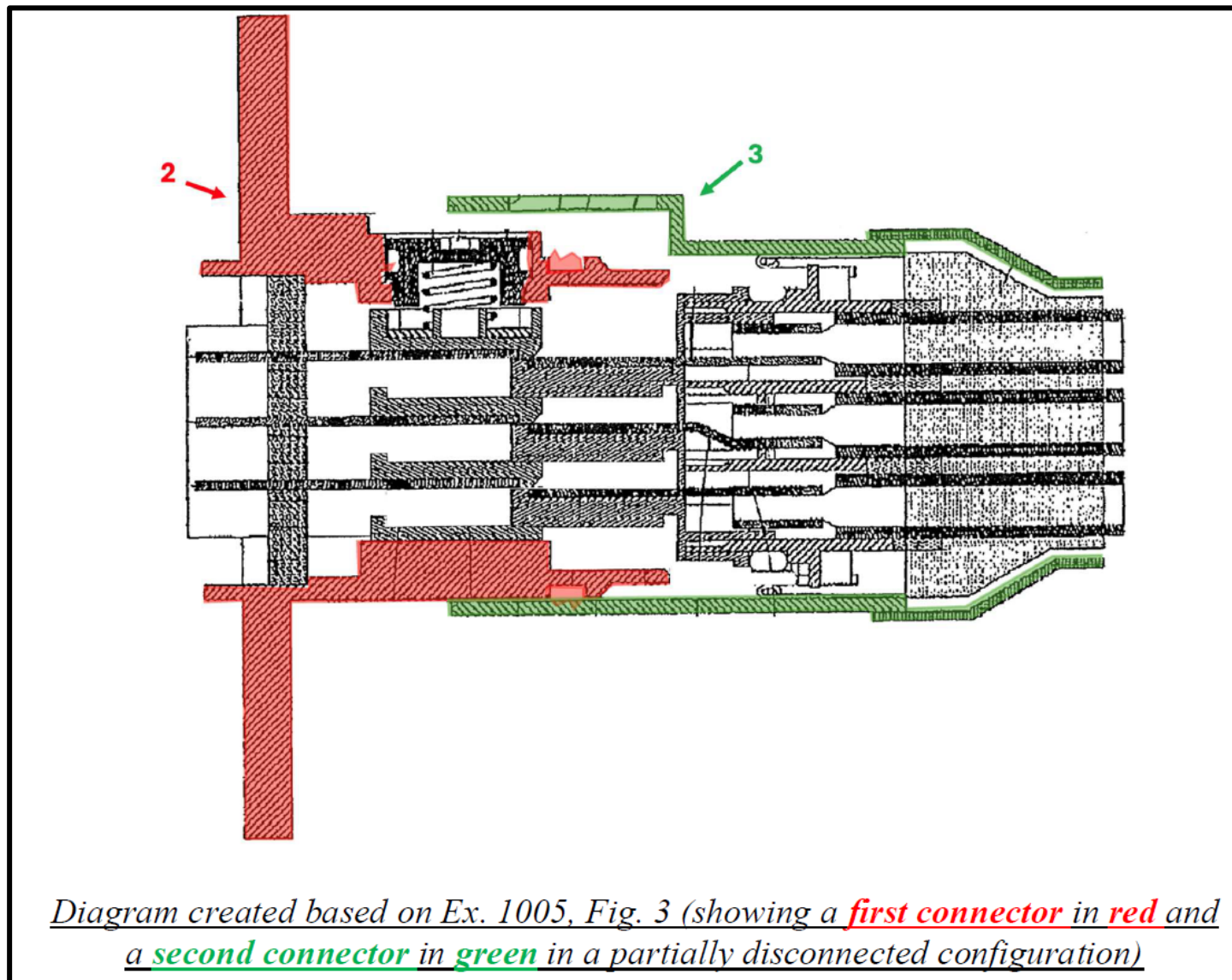


*Diagram created based on Ex. 1005, Cover (showing a cross section of a **first connector** in **red** and a **second connector** in **green**, with arrows indicating the direction of fitting the first and second connector)*

Kataoka diagram for 1[i] (cont.)



Kataoka diagram for 1[i] (cont.)

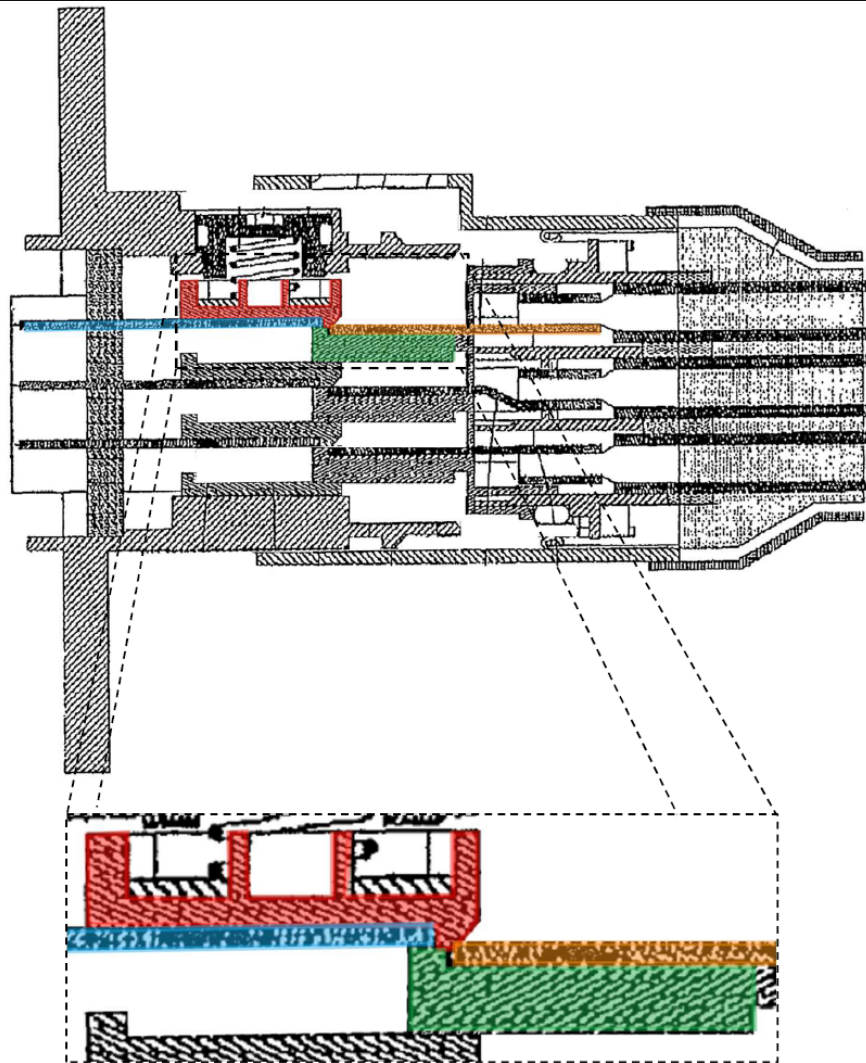


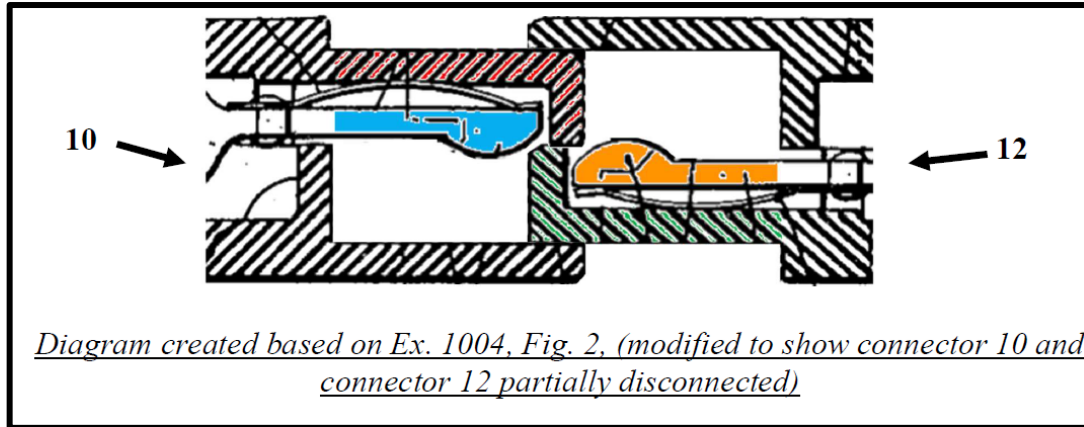
*Diagram created based on Ex. 1005, Fig. 3 (top), and enlarged portion (bottom) (showing a **first insulating barrier** in **red** and a **second insulating barrier** in **green** of a connector pair in a partially disconnected configuration, a **first electrical contact** in **blue**, and a **second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

The Board Found a Proper and Supported Anticipation Analysis for 1[i]

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. . . . Expert testimony may shed light on what a skilled artisan would reasonably understand or infer from a prior art reference.” (citations omitted)). Dr.

15. Here, Dr. Eldering’s Declaration includes detailed explanations and analyses that, based on the current record, are supported by the asserted art of record.

Mr. Locati Does Not Disprove Dr. Eldering's Explanations



Pet. at 33

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.

Ex.2001 at ¶102

4 Q. Okay. And you have a couple
5 different points in this section. You say in
6 paragraph 2 -- 102 that the diagram we've been
7 talking about based on Winkler that was included
8 in the petition -- you said you would never
9 envisage this diagram from Winkler's actual
10 figures and disclosures.

11 What would you envisage based on the
12 actual figures and disclosure that's different
13 from the figure identified?

14 MR. LUKAS: Objection. Form.

15 A. Not this. Not what was disclosed by
16 Elderling and Petitioner.

Ex.1022 at 77:4-16

Mr. Locati Does Not Disprove Dr. Eldering's Explanations (cont.)

8 Q. And so is it your opinion that
9 without a figure from Kataoka, a person of
10 ordinary skill in the art would not have any
11 understanding of how the two portions are
12 intended to connect?

13 A. No, that's not my opinion.

14 Q. Okay. So a person of ordinary skill
15 in the art, looking at the figures in Kataoka,
16 would have some understanding of how the two
17 portions of the electrical contacts are intended
18 to connect, right?

19 A. When fully connected and fully
20 disconnected, yes, looking at the figures and
21 taken in conjunction with the specification
22 detail.

23 Q. Okay.

24 A. Not from Petitioner's and
25 Elderling's figure.

Winkler Grounds - Disputed Dependent Claim Limitations

Issue	Description	Claim	Resolution
5	<i>Winkler's</i> "barrier tensioning mechanism"	4	Mr. Locati's testimony does not refute Dr. Eldering's explanation and diagrams showing how <i>Winkler's</i> connectors fit together with barrier tensioning mechanisms. Pet. at 36-37; PR 19-20
6	Soldering <i>Winkler's</i> terminal to a printed circuit board	8	PO's "freedom of movement" argument does not refute the obviousness ground.
7	Modifying <i>Winkler</i> to have an insulation displacement terminal	10	PO's arguments regarding mechanical forces are refuted by the evidence of record. Pet. at 43-55; PR at 20-21; Ex.1008 at 74-77
8	Modifying <i>Winkler</i> to have a "screw terminal" or "spring mechanism"	11, 12	The electrical contacts of <i>Winkler-Poliak</i> have screw terminal and spring mechanism. Pet. at 55-62; PR at 21 37

Issue 5:

***Winkler* discloses “a barrier tensioning mechanism that presses the first and second insulating barriers against each other”**

Ground 1A: Dependent Claim 4

Petition Diagram of *Winkler's* "Barrier Tensioning Mechanism"

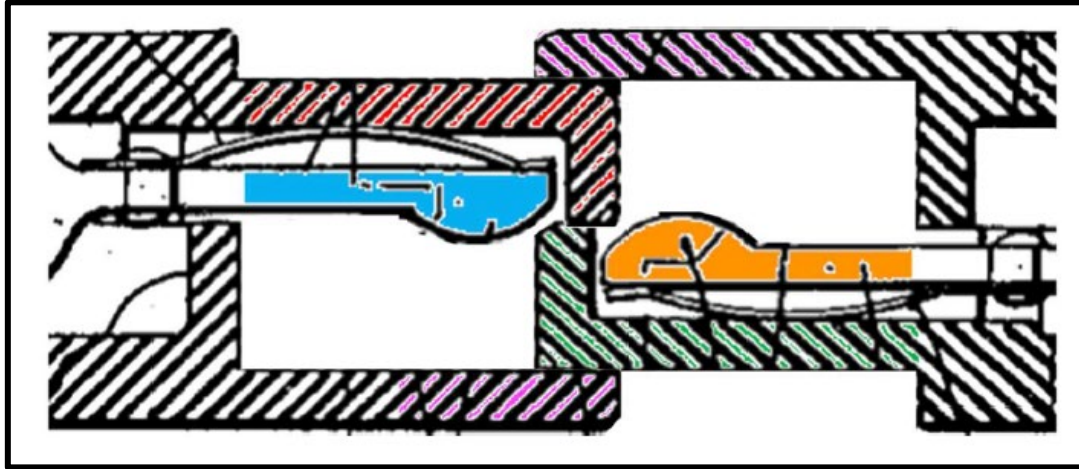


Diagram based on Ex. 1004, Fig. 2 (showing connectors 10 and 12 partially disconnected, with barrier tensioning mechanisms in pink, first insulating barrier in red, and second insulating barrier in green)

Dr. Eldering:

3 The narrow openings correspond to the
4 sockets 54, 56 which are of a size such to snugly
5 receive the pockets 42, 44 and as shown in the
6 annotated diagram, the pink highlighted portions
7 of each connector housing are barrier tensioning
8 mechanisms because they cause the first insulating
9 barrier and the second insulating barrier to press
10 against each other.

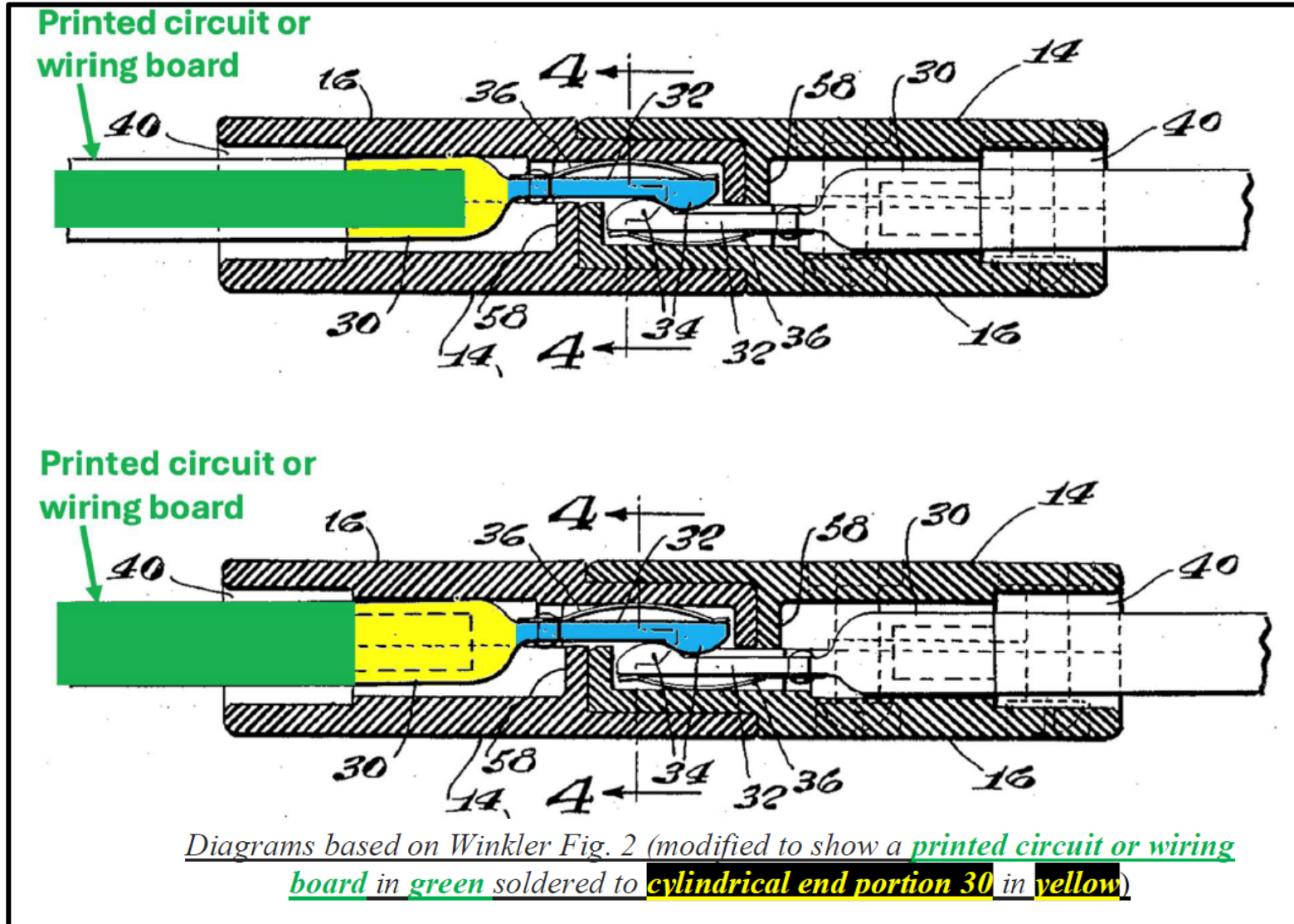
Pet. at 36-37; Ex.2002 at 171:3-10

Issue 6:

Obviousness of soldering *Winkler's* connector to a printed circuit or wiring board

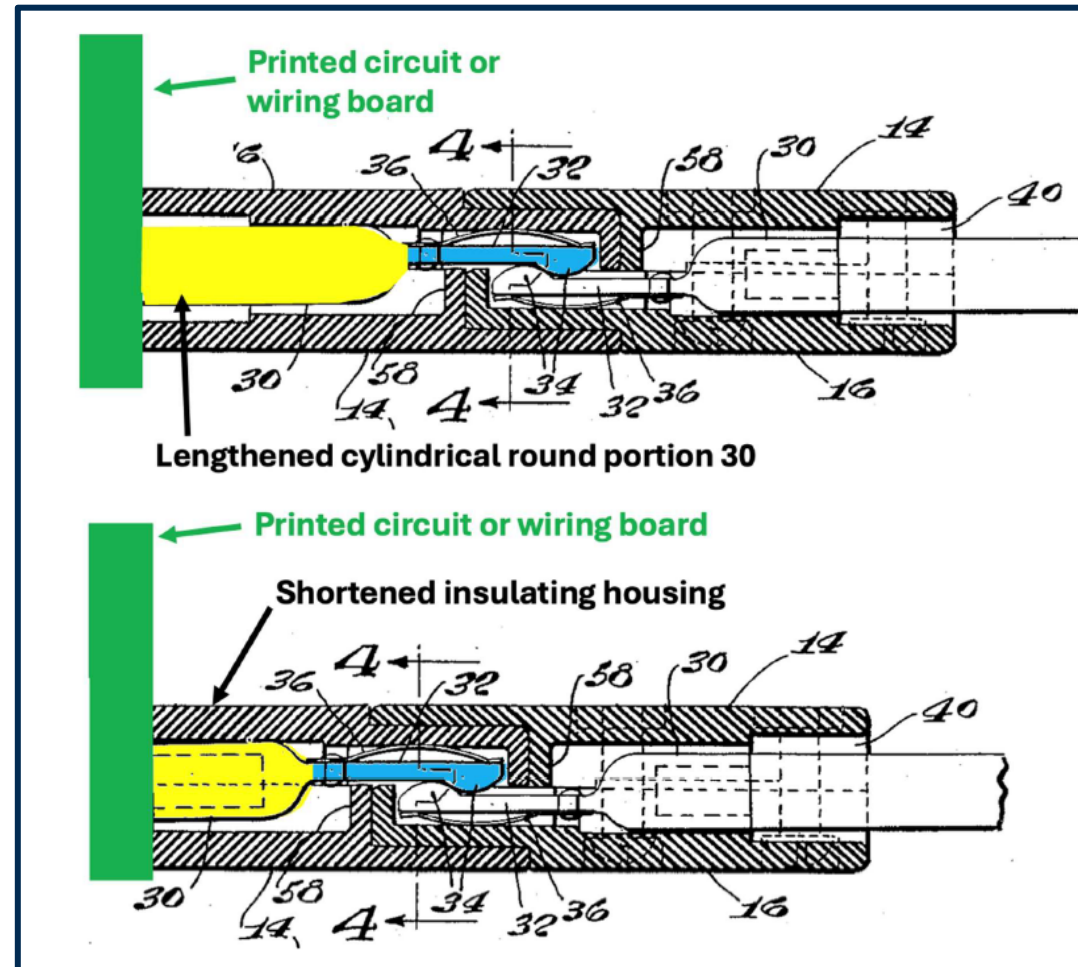
Ground 1C: Dependent Claim 8

Petition Diagrams of *Winkler's* Connector Soldered to a Printed Circuit or Wiring Board



Pet. at 44-45

Petition Diagrams of *Winkler's* Connector Soldered to a Printed Circuit or Wiring Board (cont.)



Pet. at 45-46

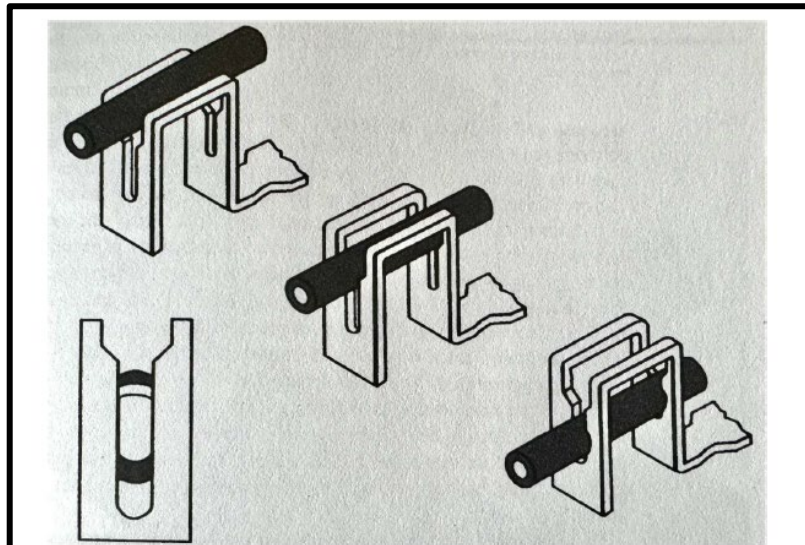
Diagrams based on Winkler Fig. 2 (modified to show a printed circuit or wiring board in green soldered to cylindrical end portion 30 in yellow)

Issue 7:

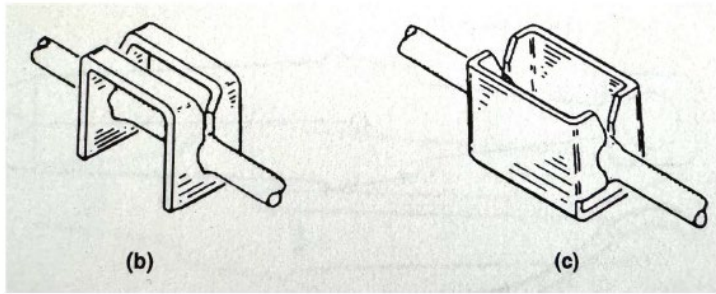
**Obviousness of including an insulation displacement terminal in
Winkler's electrical connector**

Ground 1C: Dependent Claim 10

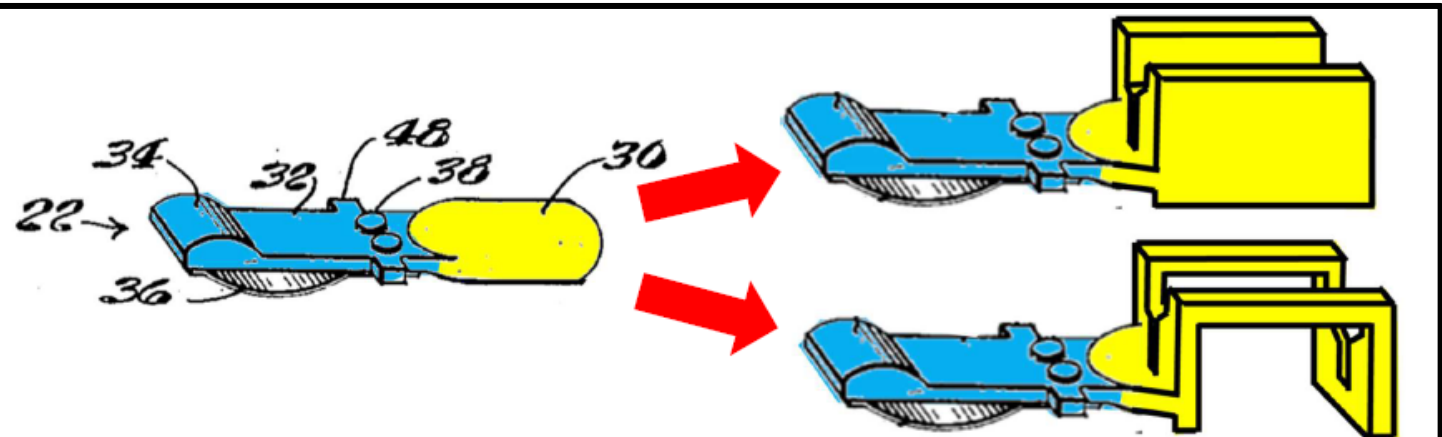
Petition Diagram of *Winkler's* Contact Modified with an Insulation Displacement Terminal



Ex. 1008, Fig. 9.26 ("Schematic of the insulation displacement connection process")



Ex. 1008, Fig. 9.32(b) and (c) (showing "Schematic illustrations of IDC terminal designs")



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)

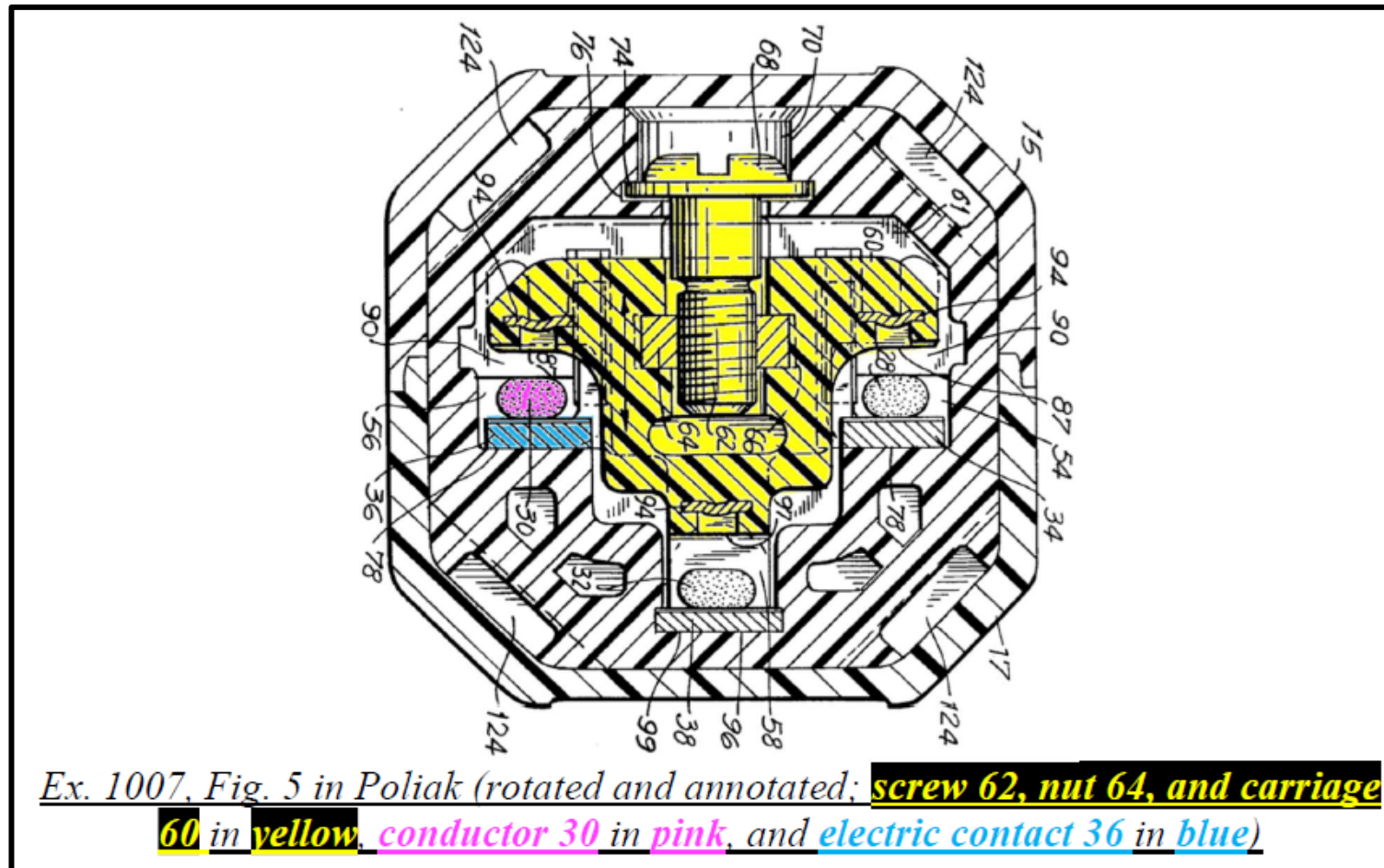
Issue 8:

Obviousness of modifying *Winkler's* to include a screw terminal or spring mechanism

Ground 1D: Dependent Claims 11 and 12

Petition Diagram of *Winkler's* Contact Modified based on *Poliak* to have a Screw Terminal

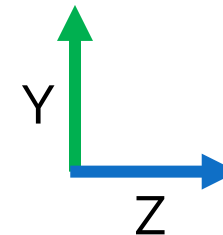
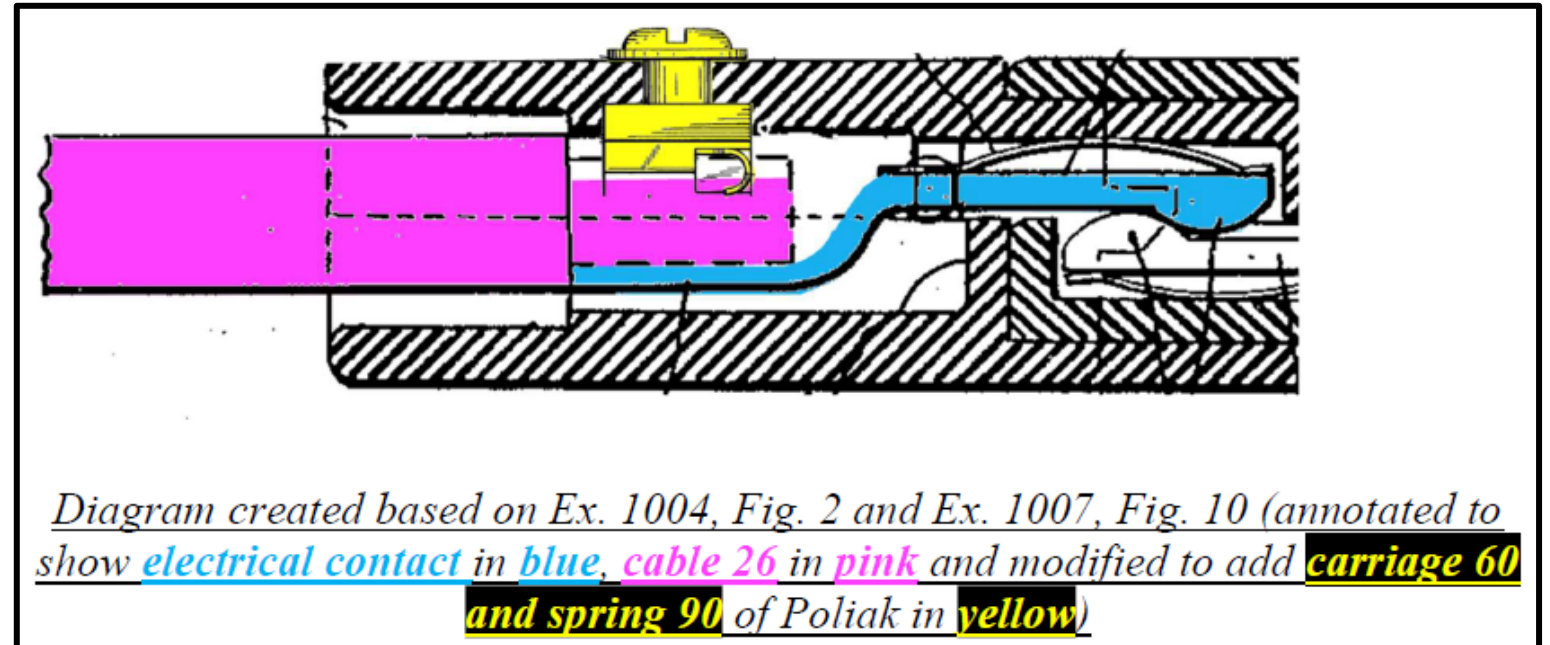
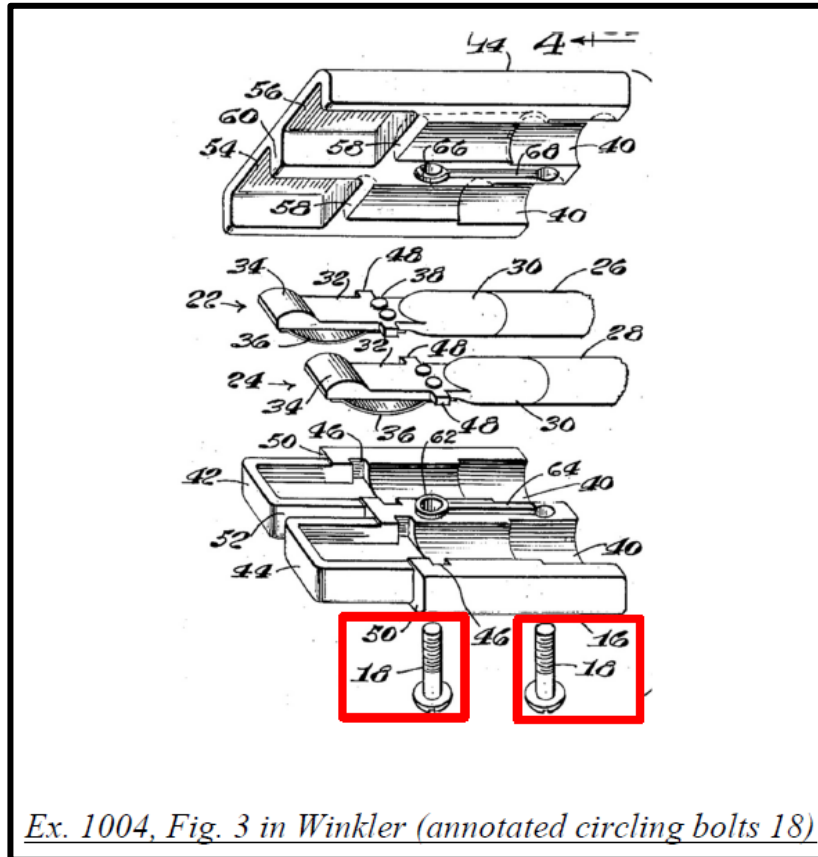
- Poliak's **screw terminal**:



Pet. at 57

Petition Diagram of *Winkler's* Contact Modified based on *Poliak* to have a "Screw Terminal"

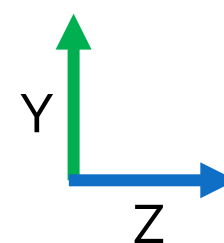
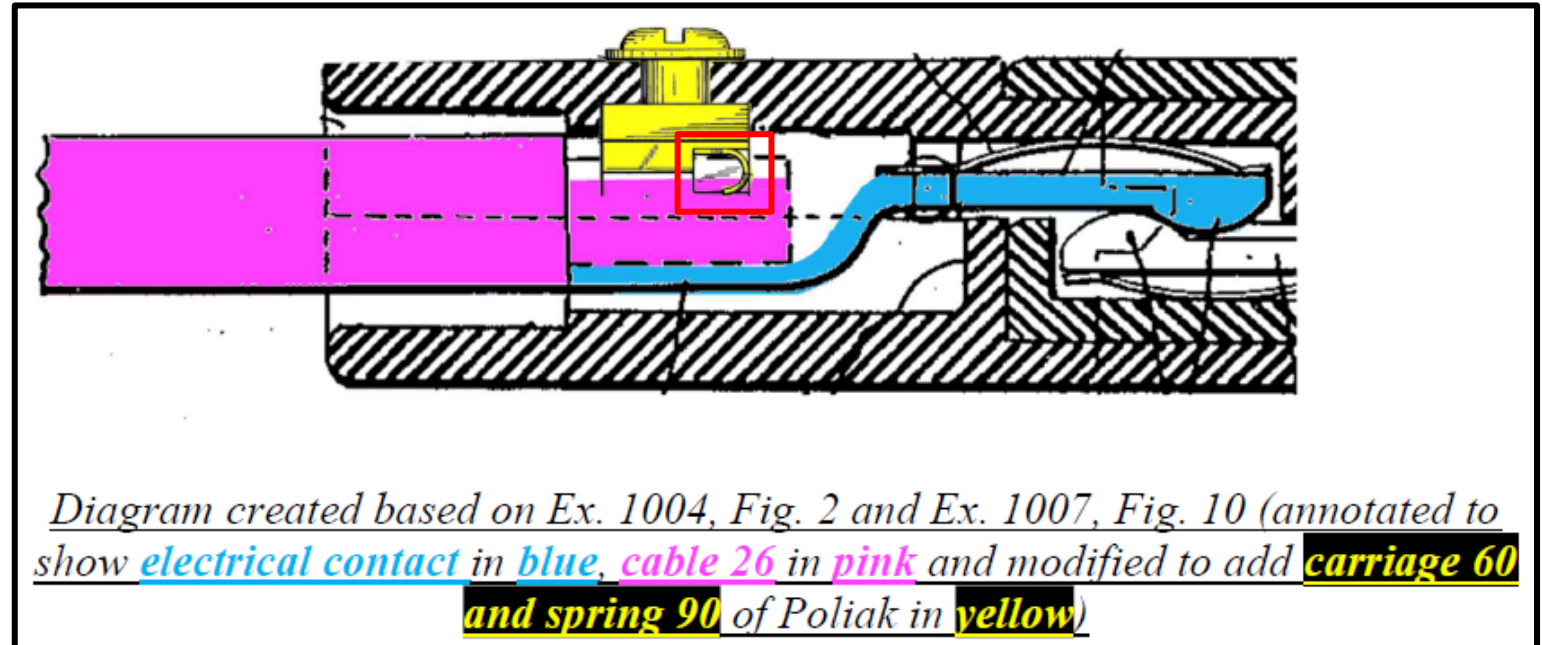
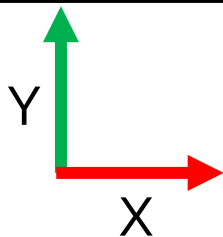
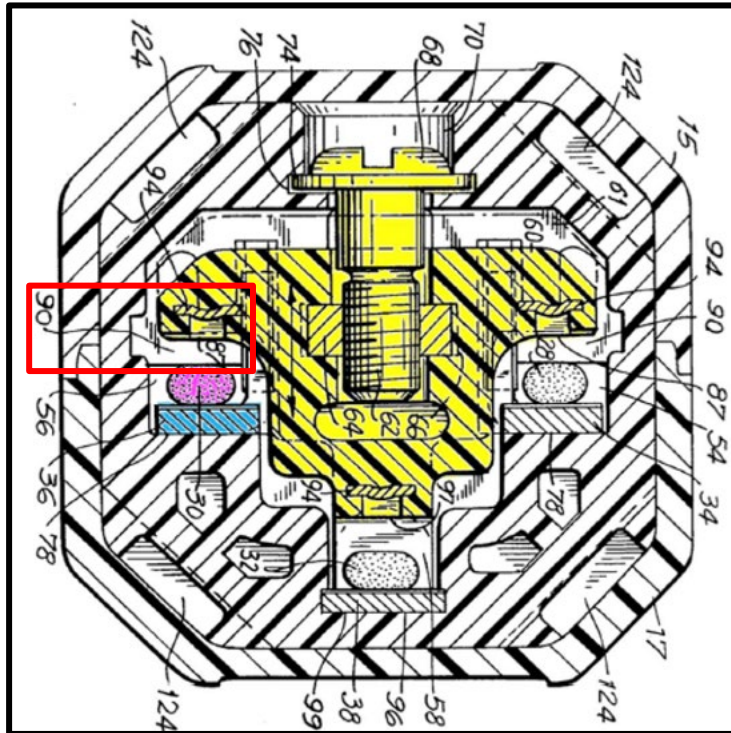
- Winkler's **contact** modified based on *Poliak's* **screw terminal**:



Pet. at 56, 59

The screw terminal of *Winkler-Poliak* includes a “Spring Mechanism”:

- Winkler-Poliak includes a spring 90:

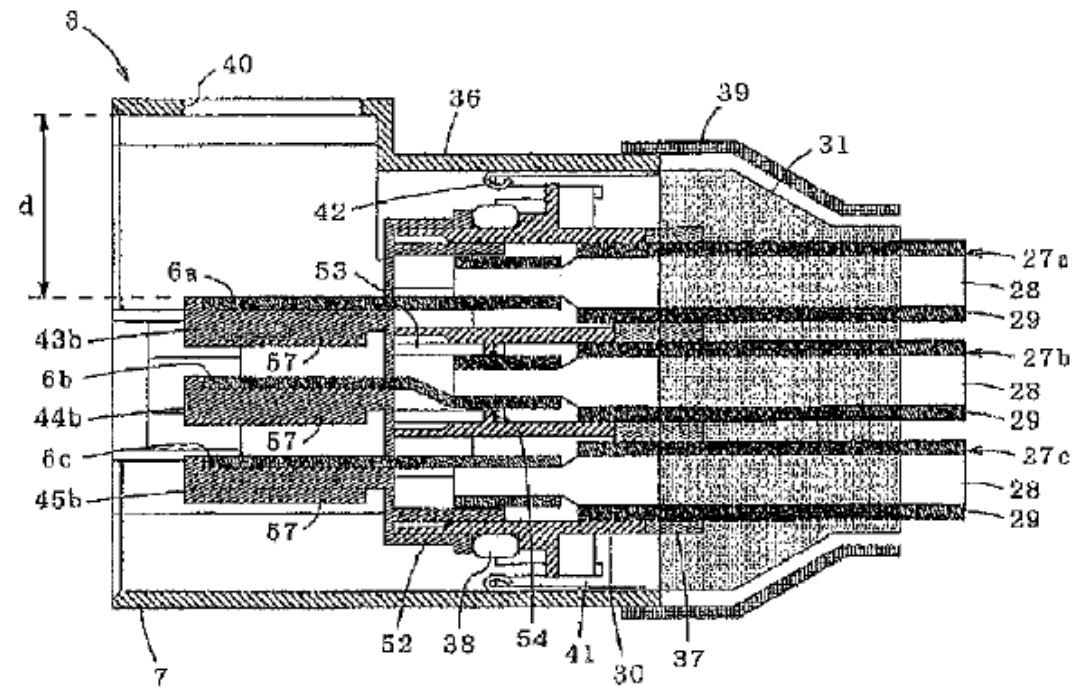
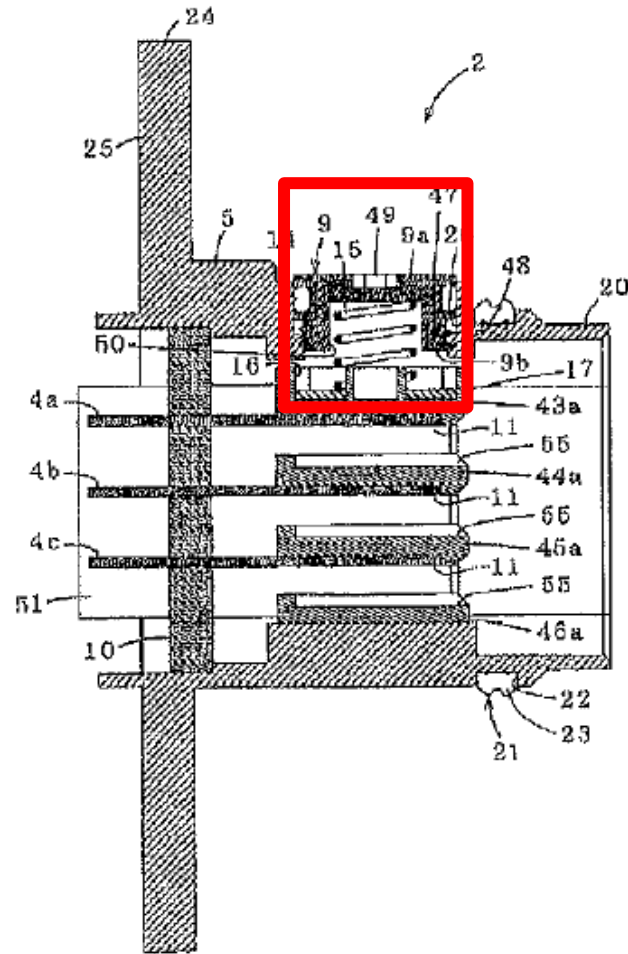


Pet. at 57, 59

Kataoka Grounds - Disputed Dependent Claim Limitations

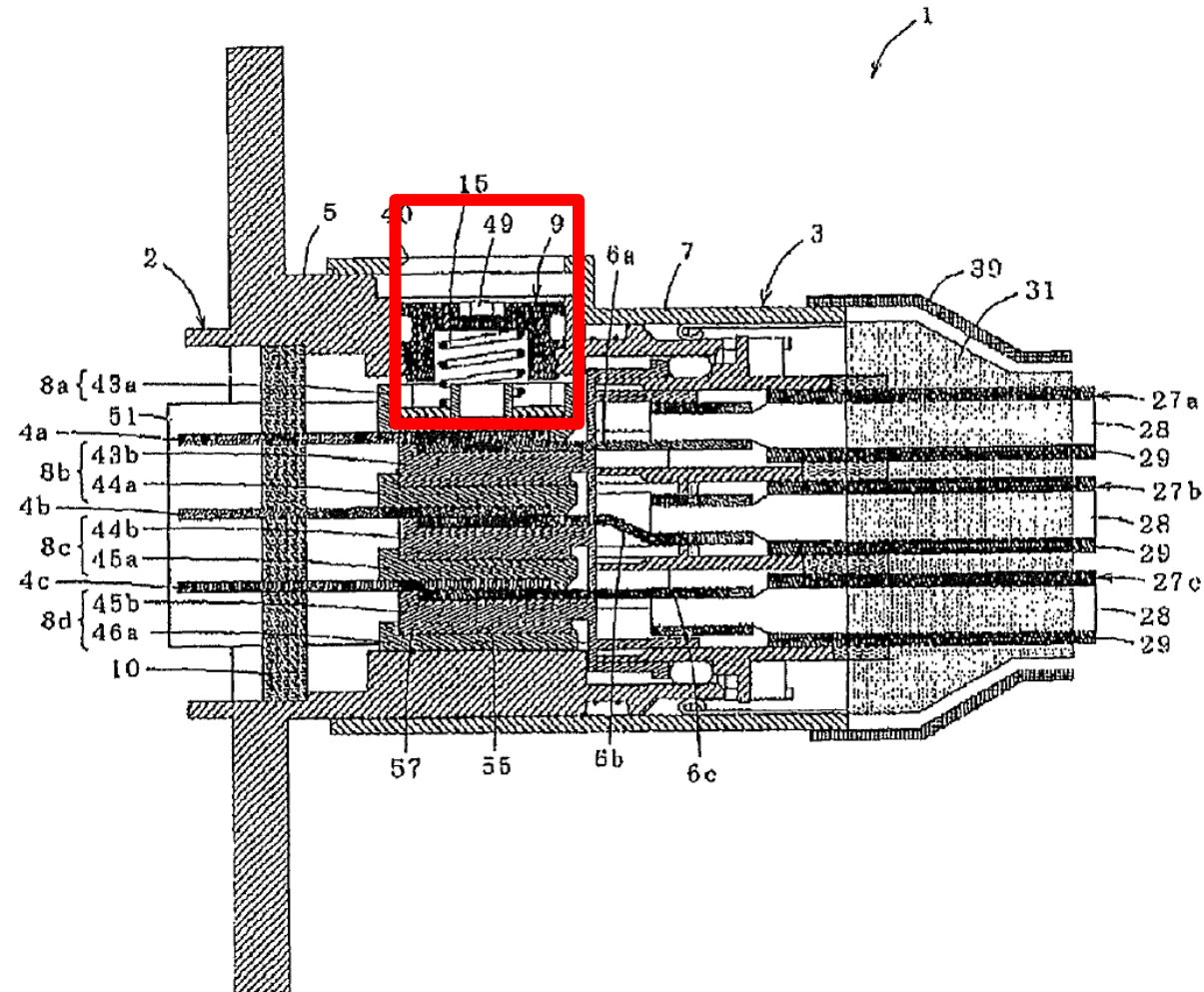
Issue	Description	Claim	Resolution
9	<i>Kataoka's</i> "contact tensioning mechanism"	2, 3	Kataoka's connecting member presses both contacts against one another. Pet. at 84-85; PR at 26
10	<i>Kataoka's</i> "barrier tensioning mechanism"	4	- Kataoka's connecting member presses against the contacts and the associated insulating barriers. - Nothing of record supports Patent Owner's theories about the connecting member. Pet. at 85-86; PR at 26-27

Kataoka's Connecting Member 9:



Kataoka's Connecting Member 9 (cont.):

FIG.3



Ex.1005 at Fig. 3

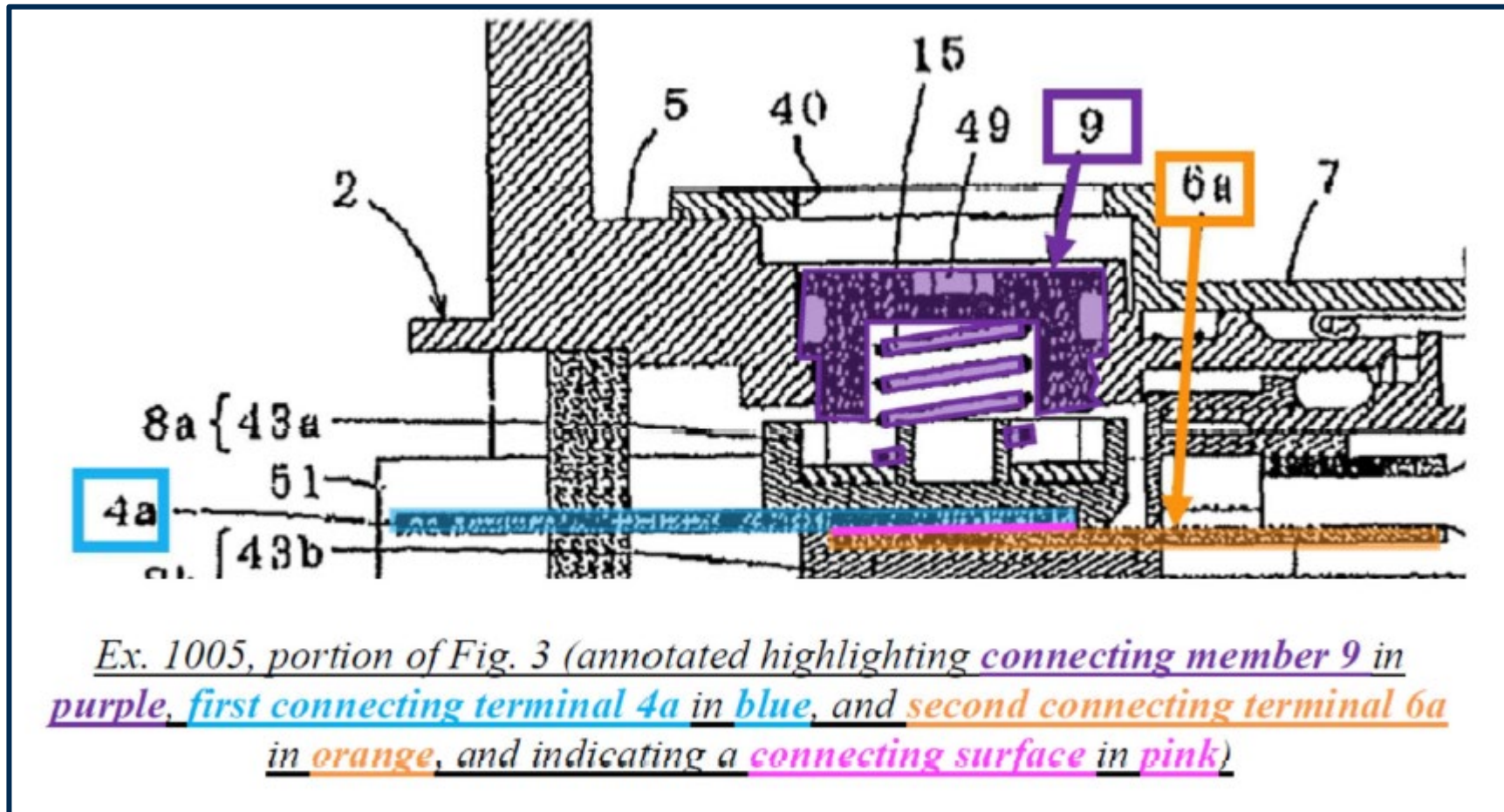
Issue 9:

**Kataoka's connecting member presses first and second contacts
against one another**

Ground 2A: Dependent Claims 2 and 3

Kataoka's “Contact Tensioning Mechanism”:

- *Kataoka's* connecting member 9 presses both contacts against one another:



Issue 10:

**Kataoka's connecting member presses insulating barriers
against one another**

Ground 2A: Dependent Claim 4

Kataoka's “Barrier Tensioning Mechanism”:

- *Kataoka's* connecting member 9 presses insulating barriers of both contacts against one another:

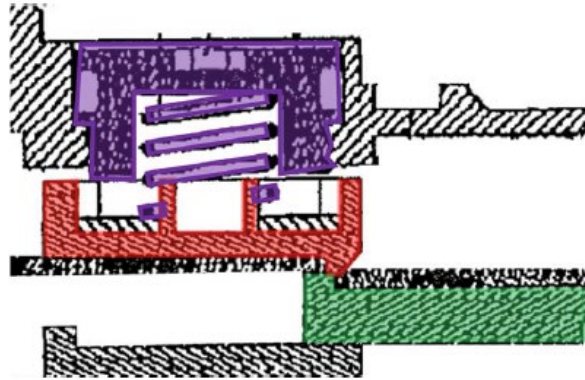


Diagram created based on Ex. 1005, Fig. 3 (showing a **first insulating barrier** in **red** and a **second insulating barrier** in **green** of a connector pair in a partially disconnected configuration, and a **connecting member 9** in **purple**)

Petitioner's Level of a POSITA Should Be Adopted

	Petitioner	Patent Owner
Education	at least a bachelor's degree in electrical engineering or a similar field	at least a bachelor's degree in mechanical or electrical engineering or an equivalent field
Work Experience	and at least two years of experience working with electrical circuits or electrical connectors, including power connectors. Additional relevant work experience can compensate for less education, and vice versa.	and at least two years of experience designing or developing electrical connectors

Pet. at 19
POR at 8
PR at 27-29

Petitioner's Level of a POSITA Should Be Adopted

	Petitioner	Patent Owner
Education	at least a bachelor's degree in electrical engineering	at least a bachelor's degree in <u>mechanical or electrical engineering</u> or an equivalent field
Work Experience	PO's requirements would exclude '017 patent inventor Additional relevant work experience can compensate for less education, and vice versa.	<u>and</u> at least two years of experience designing or developing electrical connectors Requires specific education + specific work experience with no flexibility

Pet. at 19
POR at 8
PR at 27-29

Petitioner’s Level of a POSITA Should Be Adopted

	Petitioner 	Patent Owner 
Education	at least a bachelor’s degree in electrical engineering or a similar field	at least a bachelor’s degree in mechanical or electrical engineering or an equivalent field
Work Experience	and at least two years of experience working with electrical circuits or electrical connectors, including power connectors. Additional relevant work experience can compensate for less education, and vice versa.	and at least two years of experience designing or developing electrical connectors
	Petitioner’s level requires relevant education <u>and/or</u> relevant experience	Requires specific education + specific work experience with no flexibility

Pet. at 19
POR at 8
PR at 27-29

Mr. Locati's Testimony is Untrustworthy

14 Q. There is -- are you aware that there
15 is claim construction also going forward in the
16 district court case?

17 A. I'm not aware.

18 Q. Okay. Do you know that this term is
19 also -- there's been briefing on the
20 construction of insulating in the district court
21 case as well?

22 A. I do now.

Ex.1022 at 137:14-22

6 Q. Okay. Are you aware that much of
7 your opinions on the insulating term are
8 word-for-word identical to what's in the claim-
9 construction briefs that were submitted by
10 Anderson's counsel?

11 A. I have no knowledge of that.

Ex.1022 at 139:6-11

Mr. Locati's Testimony is Untrustworthy (cont.)

6	Q.	Are you aware if Anderson has taken
7		the position that Claim 17 -- Claim 1 of the
8		017 patent does not require that all through-air
9		arcing paths are blocked?
10		MR. LUKAS: Objection. Form.
11	A.	Am I aware? No.

Ex.1022 at 100:6-11

Mr. Locati's Testimony is Untrustworthy (cont.)

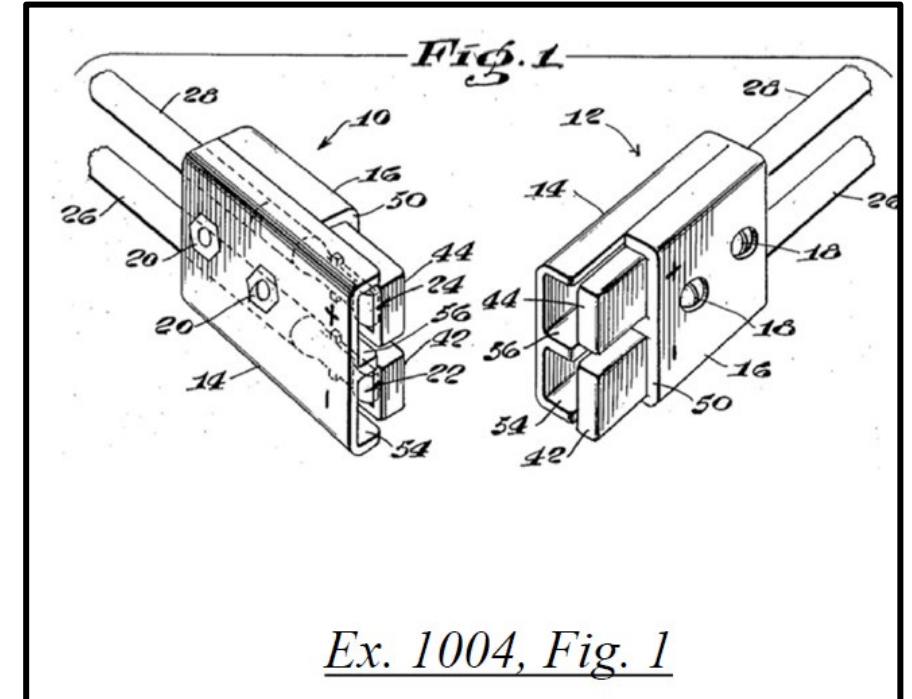
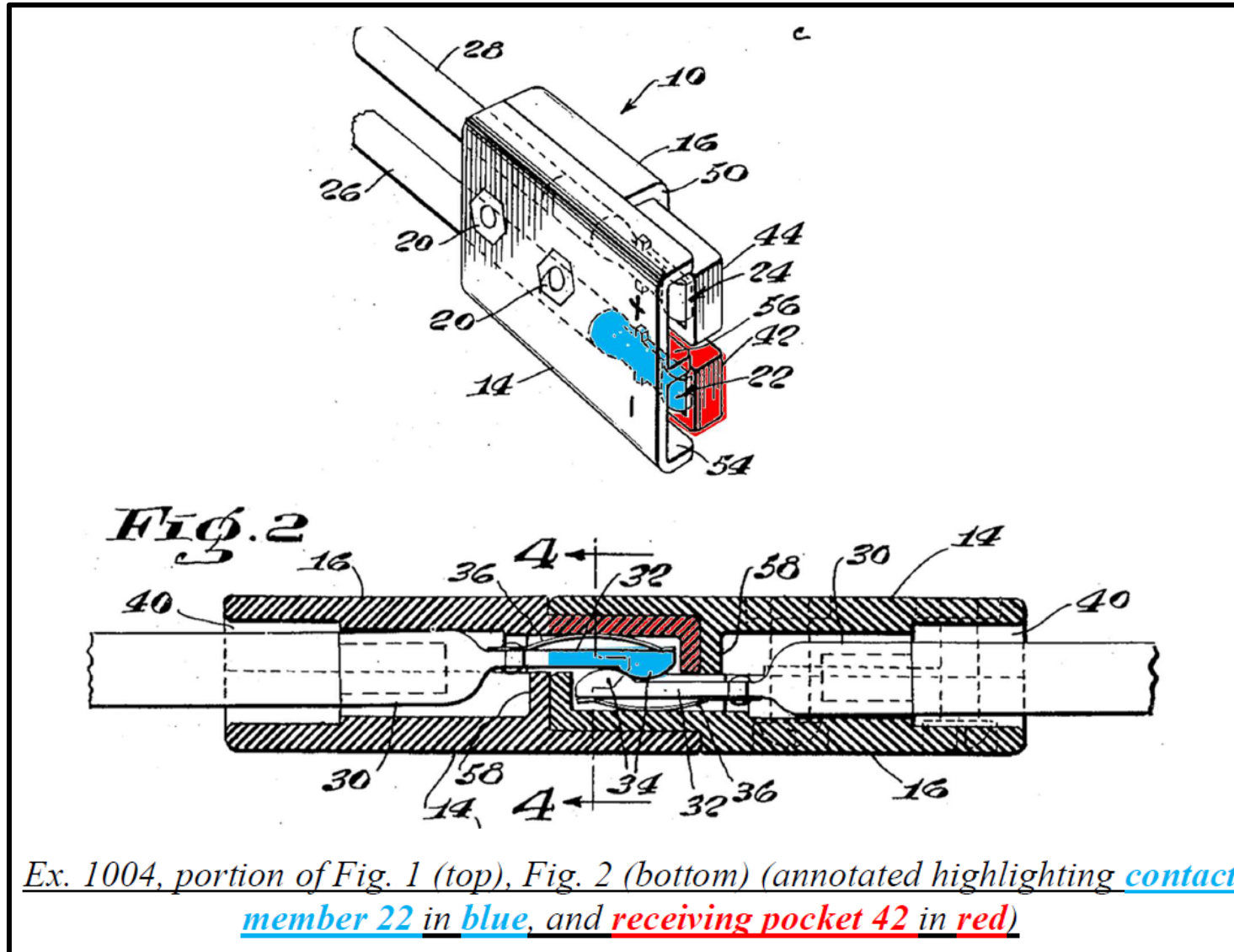
14	Q.	But as your -- so is it your
15	testimony that	<u>there is no partially connected</u>
16	<u>state</u>	for the connector pair described in
17	Winkler?	
18	A.	<u>That is not my view.</u>
19	Q.	Okay. So your view is that <u>there is</u>
20	<u>a partially disconnected state</u>	for the connector
21	pair described in Winkler?	
22	A.	<u>No. That's not my view either.</u>

Ex.1022 at 100:6-11

Cited Papers

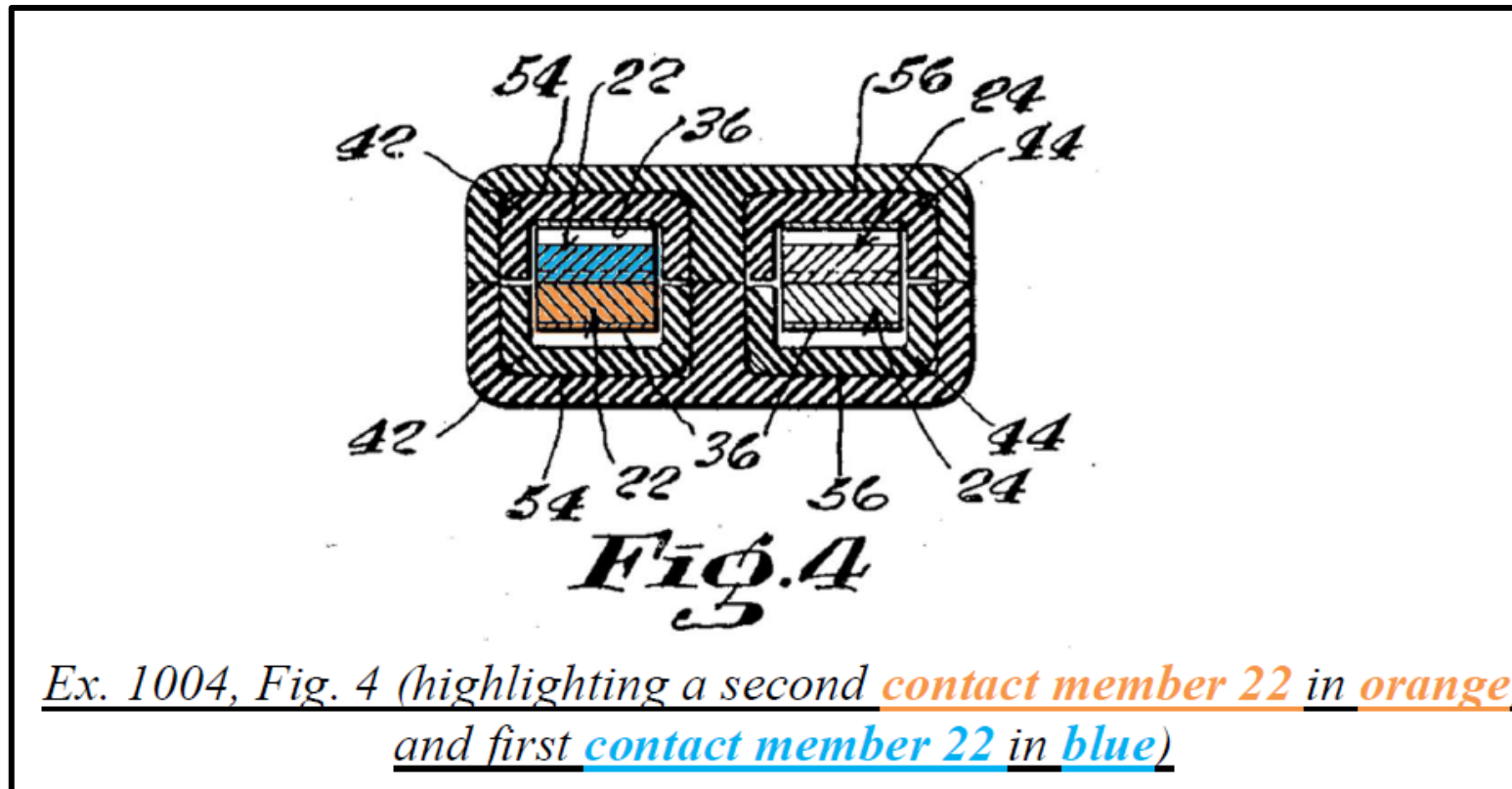
Shorthand	Document	Paper No.
Pet	Petition	1
ID	Institution Decision	7
POR	Patent Owner Response	12
PR	Petitioner Reply	15
POSR	Patent Owner Sur-Reply	17

Winkler Connectors

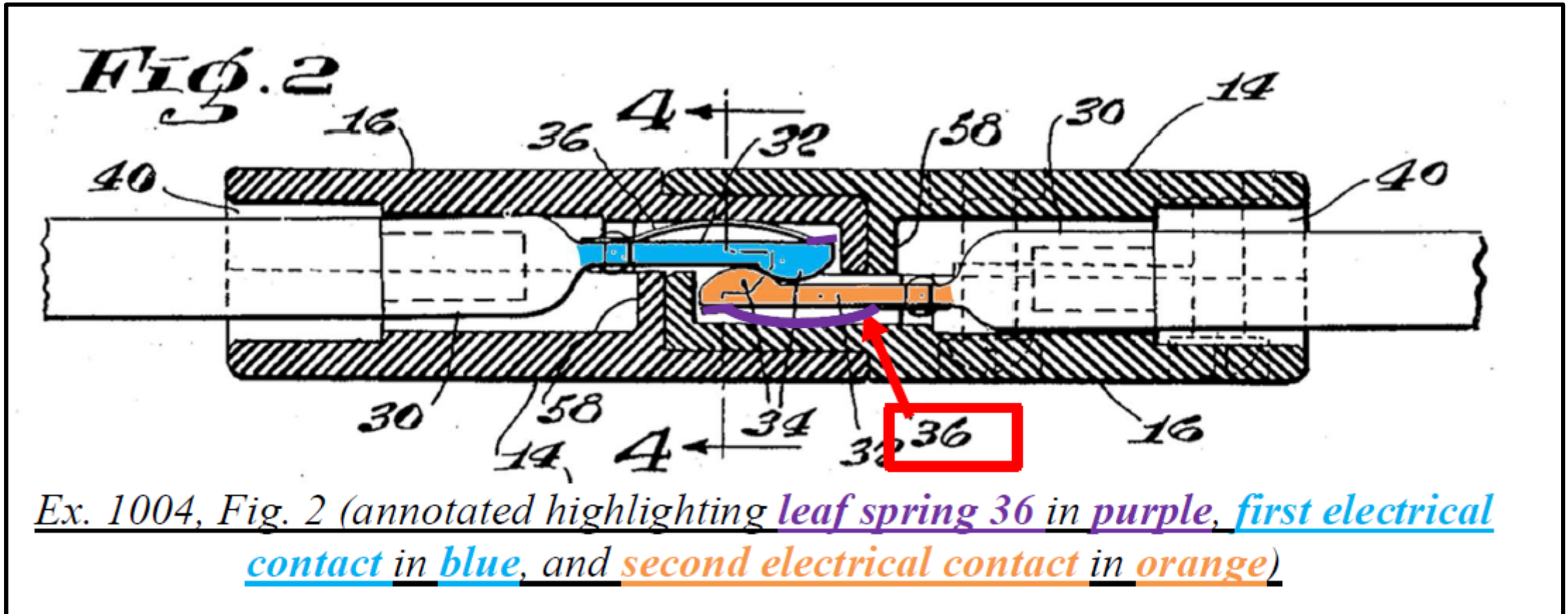


Pet. at 30-31, 40

Winkler Connectors (cont.)



Winkler Connectors (cont.)



Kataoka Connectors

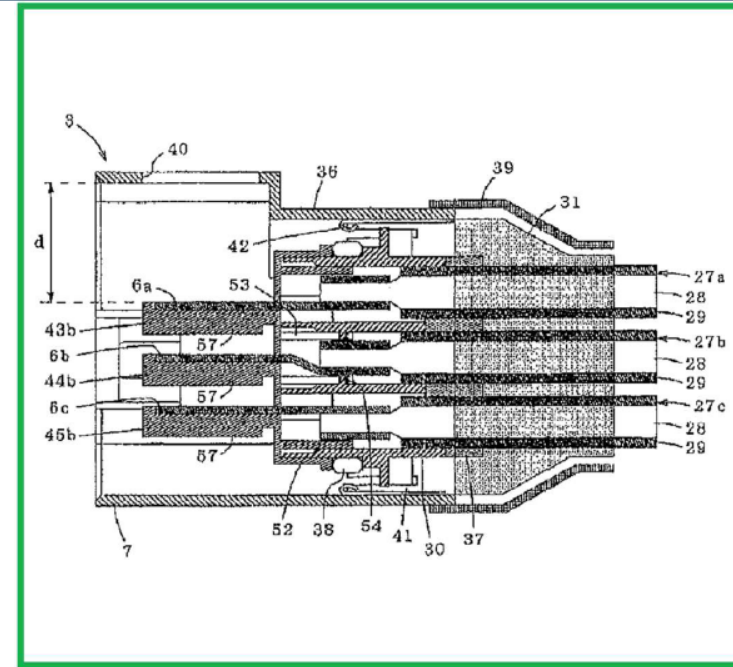
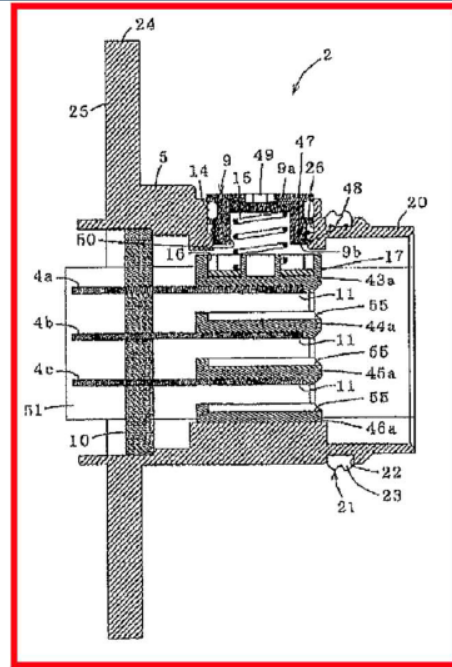
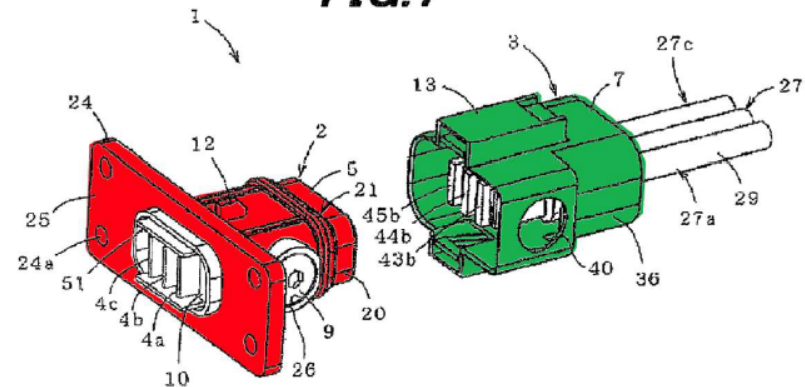
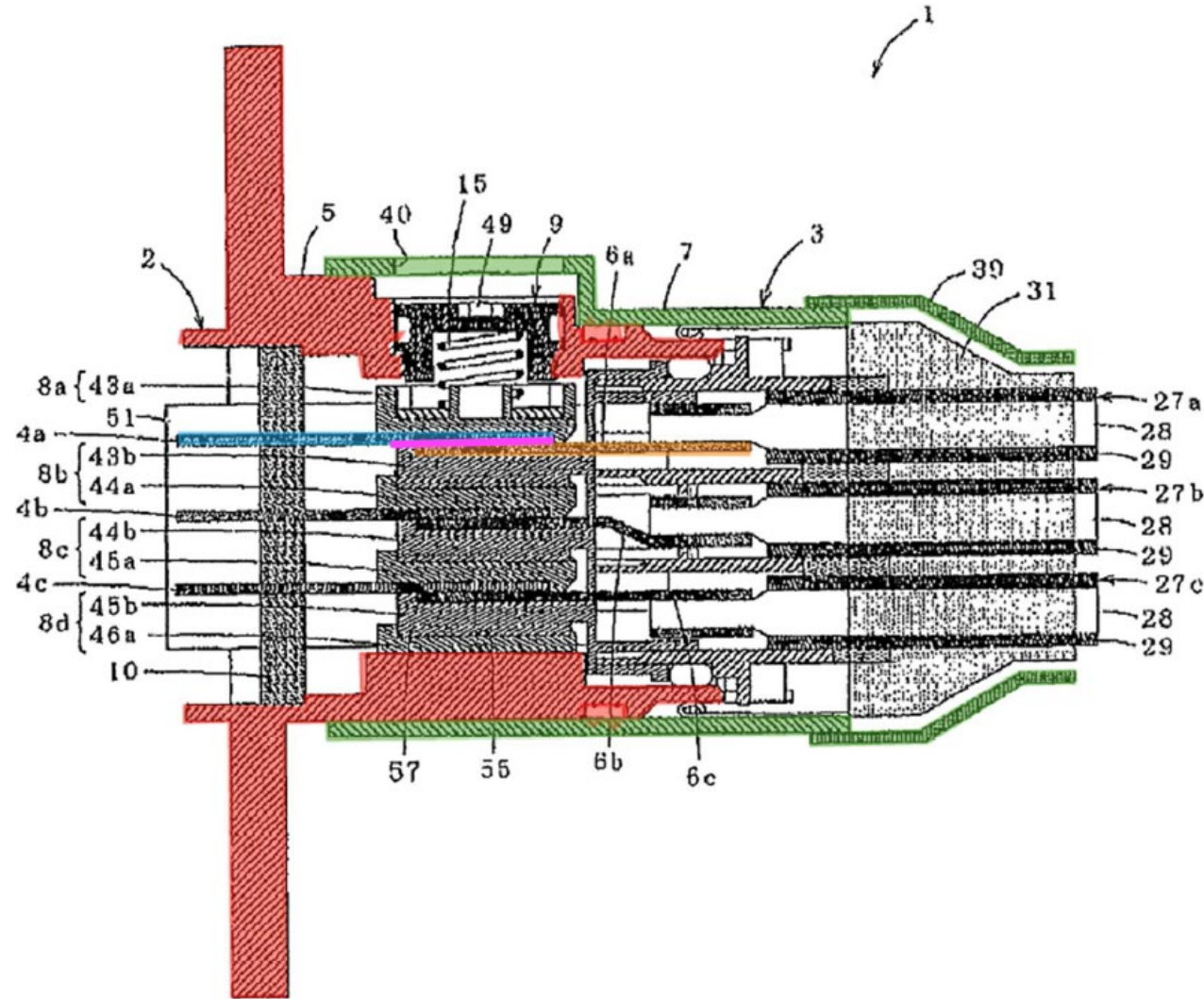


FIG. 1



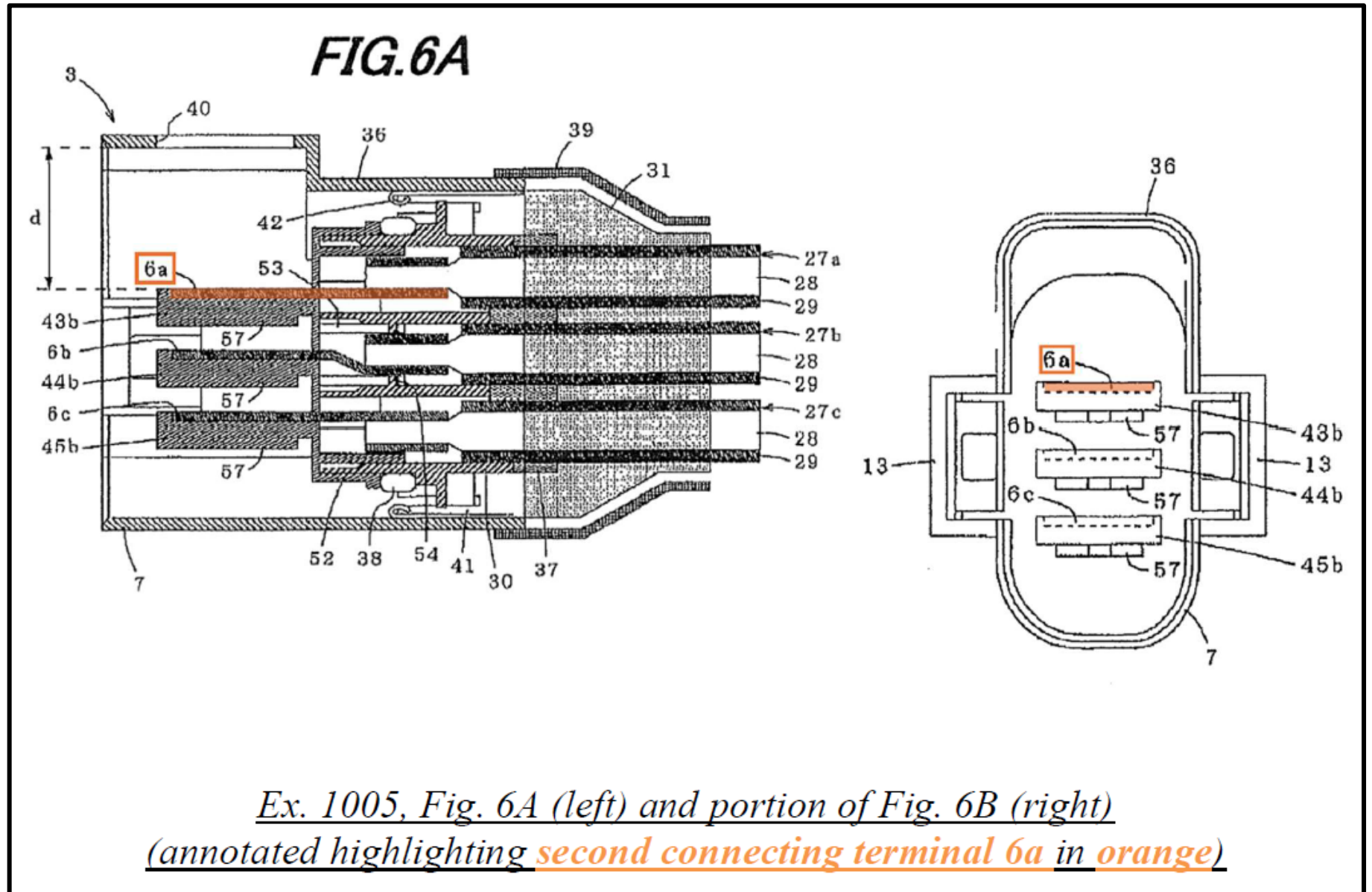
Ex. 1005, Cover (top), Fig. 1 (bottom) (annotated showing a first connector portion 2 in red and a second connector portion 3 in green)

Kataoka Connectors (cont.)



Ex. 1005, Fig. 3 (annotated highlighting a first connector in red, a first electrical contact in blue, a second connector in green, a second electrical contact in orange, and indicating a connecting surface in pink)

Kataoka Connectors (cont.)



Design Considerations in Electrical Connector Handbook (Ex.1008)

11.5.4 Connectors for SMT

Among the design/material and process issues that must be addressed to ensure the repeatability of SMT soldering processes for connectors are:

- Registration of the connector leads to the pads
- Coplanarity of the leads to ensure contact to the pads
- Adequate connector hold-down prior to soldering
- Solderability of the leads
- The solder supply
- Thermal stability of the housing to withstand the heat of the process
- Inspection of the solder joints
- The ability of the solder bond to withstand mating and other stresses that may occur in the field
- Compatibility with automatic pick-and-place equipment for economical manufacturing

SMT is typically used on high-density PWB with fine line spacings. Registration of the connector leads to the board pads is critical to ensure proper solder joint area and geometry. Lead coplanarity is necessary to ensure contact of all leads to the associated solder pads. Tolerances on coplanarity of 50 to 100 μm are typical.

For high pin count connectors, mechanical hold-downs may be necessary to serve three purposes. First, the solder paste may not be sufficient to ensure retention of the connectors during the soldering process. Second, hold-downs can also preload the contacts against the board surface, moderating the requirements on coplanarity. Third, the hold-downs can also support stresses that the connectors will experience during mating.

Ex.1008 at 75 (cited in
Pet. at 44, 45, 47)

Challenged Claim Language

Element	Claim Language
1[pre]	An electrical connector pair, comprising:
1[a]	a first connector having a first insulating housing;
1[b]	a first electrical contact supported within the first insulating housing,
1[c]	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;
1[d]	a second connector having a second insulating housing;
1[e]	a second electrical contact supported within the second insulating housing,
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;
1[g]	a first insulating barrier within the first connector extending beyond and covering the leading end of the first electrical contact; and
1[h]	a second insulating barrier extending beyond the second electrical contact within the second connector,
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.

Challenged Claim Language (cont.)

Claim	Claim Language
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.
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.
7.	The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a terminal for crimping to a wire.
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.
9.	The connector pair of claim 1, wherein at least one of the first and second electrical contacts includes a terminal for soldering a wire or and electrical component to the contact.
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.

Challenged Claim Language (cont.)

Claim	Claim Language
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.