### UNITED STATES PATENT AND TRADEMARK OFFICE



# Patent Trial and Appeal Board Boardside Chat: Presenting Technology in AIA Proceedings

Brian McNamara, Administrative Patent Judge Kimberly McGraw, Administrative Patent Judge Russell Cass, Administrative Patent Judge Charles R. Macedo, Partner, Amster Rothstein & Ebenstein, LLP Brian Murphy, Partner, Haug Partners

November 17, 2022



### **Question/comment submission**

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## **Agenda**

- Where to include technology descriptions
- Tips for addressing technology descriptions
- Examples of effective visuals
- Handling technology descriptions at the oral hearing
- Panel question-and-answer

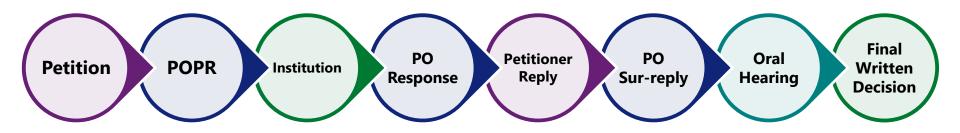


### Who is your audience?

- Not a district court trial no jury
- Decided by a panel of three APJs
  - APJs with technical background and experienced in patent law
  - At least a bachelor's degree in engineering or science
- Paper record primarily



# Timeline of an AIA proceeding





# Where to include technology descriptions

### **Petition**

- Sections of a petition
  - Background
  - Separate technology review
  - Overview of patent
  - Summary of prior art
  - Claim construction
- Others possible places where technology may be addressed
  - Applying prior art to claims
  - Explanation of combination of references



# **Expert declaration**

- Include a background technology tutorial
  - Define/explaining technical terms and concepts
  - Expanding on technology in the patent/prior art/argument
  - Discussing additional references/materials



### **Preliminary Response and Response**

- Different goals for patent owner preliminary response (POPR) and patent owner response
  - POPR is optional and may have dual purposes
    - Explain why trial should not be instituted (e.g., discretionary denials); and
    - Address the merits (e.g., missing claim elements, motivation to combine)
      - Provide technology background similar to petition
  - Response has a more singular purpose to address the merits
    - Focus on technology as needed to address the merits
    - More focus on holes in petitioner's argument



### **Reply and Sur-reply**

- Focus on disputed issues
- Concentrate on the relevant evidence to support arguments
- Highlight inconsistencies in arguments
- May include declaration with additional technology descriptions and figures
- Can discuss deposition testimony
- Last chance to include figures/subject matter that might be used as demonstratives



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### **Recent Requests for Comments**

### Requests for Comments on



- Expanding Admission Criteria for Registration to Practice in Patent Cases Before the USPTO
- Expanding Opportunities To Appear Before the Patent Trial and Appeal Board
- Published on October 18, 2022
- Comments will be accepted through January 17, 2023
- Federal Register:
  - https://www.federalregister.gov/documents/2022/10/18/2022-22572/expandingopportunities-to-appear-before-the-patent-trial-and-appeal-board
  - https://www.federalregister.gov/documents/2022/10/18/2022-22569/expanding-admissioncriteria-for-registration-to-practice-in-patent-cases-before-the-united-states

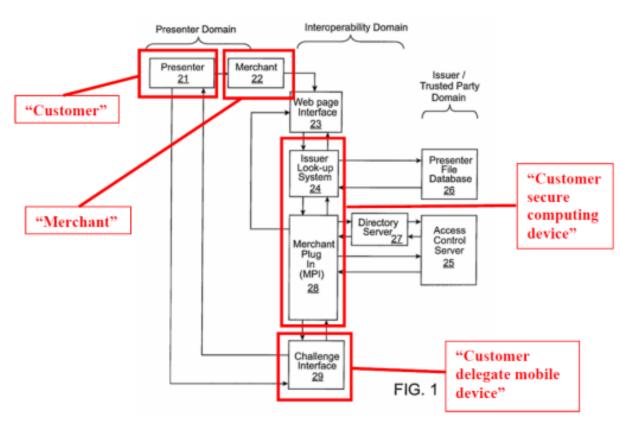
# Tips for addressing technology descriptions

### Using modified/annotated figures

- Highlighting and/or labeling
- Adding arrows and descriptors
- Color coding to match claim elements
- Combining figures from different references to show a combination
- Creating new diagrams to show operation of patent or prior art



# Are the visuals effective in these examples?





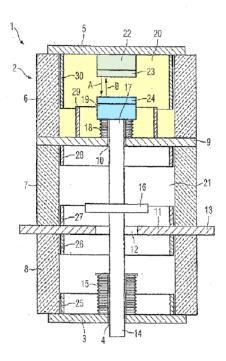
Claim 1	
1[preamble]	A circuit breaker apparatus comprising:
1[a]	a housing;
1[b]	a first bushing outwardly of said housing;
1[c]	a second bushing extending outwardly of said housing;
1[d]	a first vacuum bottle positioned in said housing and having a pair of contactors therein, one of said pair of contactors being electrically connected to said second bushing;
1[e]	a second vacuum bottle positioned in said housing and having a pair of contactors therein, one of said pair of contactors of said second vacuum bottle being electrically interconnected to ground; and
1[f]	mechanical linkage movable between a first position and a second position, said first position electrically connecting said first bushing to said second bushing, said second position electrically connecting said first bushing to ground.



### 1[d]:

Anger's vacuum interrupter includes a vacuum-sealed "first internal area (20)," which corresponds to the claimed "first vacuum bottle." (Ex. 1005, 11:19.) The first internal area 20 has a **fixed contact piece** (22/23) and a **movable contact piece** (19/24), with the movable contact piece (19/24) affixed to the movable contact rod 14, as shown in annotated Figure 1 of Anger below. (*Id.*, 11:14-22, Fig. 1.)

FIG. 1

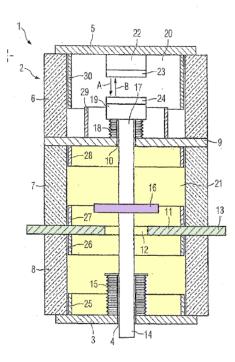




### 1[e]:

Anger also teaches a second internal area (21), which corresponds to the claimed "second vacuum bottle" and contains a grounding contact (16) and a mating contact (11), as shown in annotated Figure 1 of Anger below. (Ex. 1005, 11:10-20, Fig. 1.)



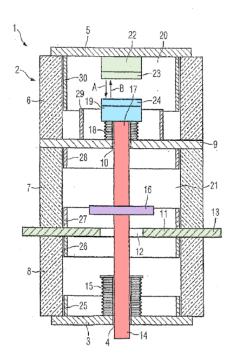




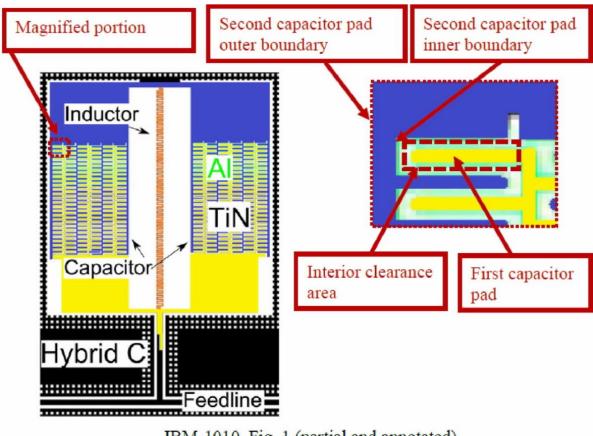
### 1[f]:

Anger in combination with Field discloses this limitation. Figure 1 of Anger discloses a **movable contact rod (14)** (which is operated by a non-depicted "actuating device") that is "conductively connected" to an electrical power supply. (*Id.*, 6:15-17.) The movable contact rod is shown below in annotated Figure 1 and forms the claimed "mechanical linkage" that moves between the claimed first and second positions. (*Id.*, 6:8-7:16; Ex. 1003, ¶142-147.)

### FIG. 1









# Example 4 (claim)

### 1. A compound represented by the formula

$$\begin{array}{c} R^1 \\ \text{s.t.} \\ A \\ B \end{array} \begin{array}{c} O \\ B \\ R^2 \end{array}$$

### wherein

ring A is a piperidine ring or a pyrrolidine ring and each straight line is a single bond and .... is a single bond; ring B is an aromatic ring optionally having substituent(s); ring D is an aromatic ring optionally having substituent(s), wherein 6-quinoly is excluded;

L is a group represented by the formula

$$\bigcap_{\mathbf{R}^3}, \bigcap_{\mathbf{R}^4} \mathbb{R}^{40}, \bigcap_{\mathbf{O}} \text{ or } \bigcap_{\mathbf{R}^{40}} \mathbb{R}^{40};$$

R<sup>2</sup>, R<sup>3</sup>, R<sup>4a</sup> and R<sup>4b</sup> are each independently a hydrogen atom, an optionally halogonated C<sub>1,a</sub> alkyl group or an optionally halogonated C<sub>2</sub>, eyteloallyl group, or R<sup>2</sup> and R<sup>3</sup> are optionally bonded via an alkylene chain or an alkenylene chain, or R<sup>4a</sup> and R<sup>4b</sup> are optionally bonded via an alkylene chain or an alkenylene chain;

R<sup>1</sup> is a hydrogen atom or a substituent; m and n are each independently an integer of 0 to 3; and

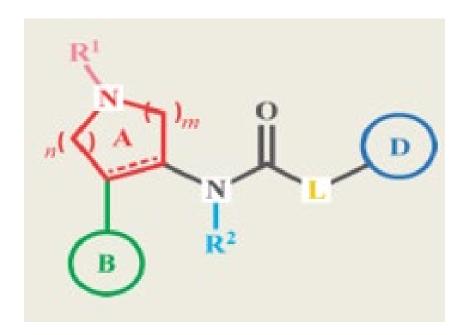
m+n is an integer of 2 to 3; provided that when L is a group represented by the formula



or a salt thereof.

wherein each of R<sup>4,0</sup> and R<sup>4,0</sup> is as defined above, then ring D is an aromatic ring having substituent(s); excluding: N-[4-(biphenyl-4-yl)piperidin-3-yl]-N'-[naphthalen-2-yl)urea;







### **Example 4 (prior art disclosures)**

### **EP '721**

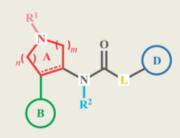
N-[4-(4- {[3-[(anilinocarbonyl)(butyl)amino]-4-(3-fluorophenyl)pyrrolidin- yl]methyl} phenoxy)phenyl] methanesulfonamide.

### KR '645



### **Example 4 (claim chart)**

### **Claim Limitations**



1. A compound represented by the formula

$$R^1$$
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 
 $R$ 

wherein: ring A is a piperidine ring or a pyrrolidine ring and each straight line is a single bond and <u>----</u> is a single bond;

### Disclosed in EP '721



Compound 3 of EP '721, has a pyrrolidine ring, which is depicted in red in the drawing above. The pyrrolidine ring of Compound 3 has all single bonds.

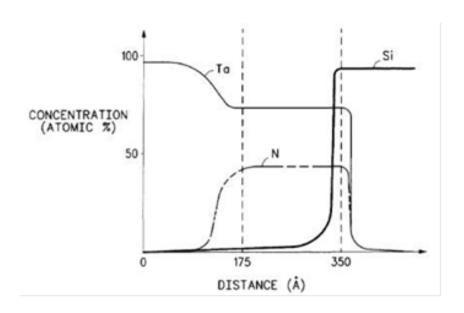
Compound 3 of EP '721 also contains an amino carbonyl moiety, which is depicted in black.

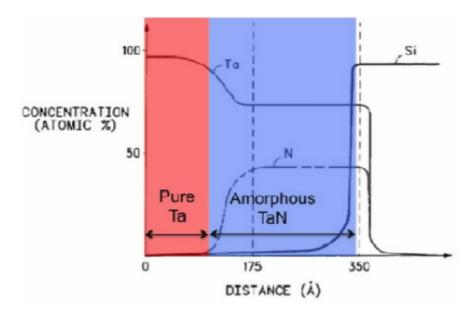
### Disclosed in KR '645



The KR Compounds have a piperidine ring, which is depicted in red in the drawing above. The piperidine ring of the KR Compounds has all single bonds.

The KR Compounds also contain an amino carbonyl moiety, which is depicted in black.







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### **USPTO Director review**



- The USPTO has published information on the Director review process to increase openness as it formalizes the process
- Details on the interim process and suggestions for parties who wish to request Director review

https://www.uspto.gov/patents/patent-trial-and-appeal-board/interim-process-director-review

- Status of Director review requests
  - Information about the proceedings in which Director review has been granted
  - Monthly updated spreadsheet with the status of all Director review requests
     https://www.uspto.gov/patents/patent-trial-and-appeal-board/status-director-review-requests

How should technology description be handled at the oral hearing?

### **Oral hearing**







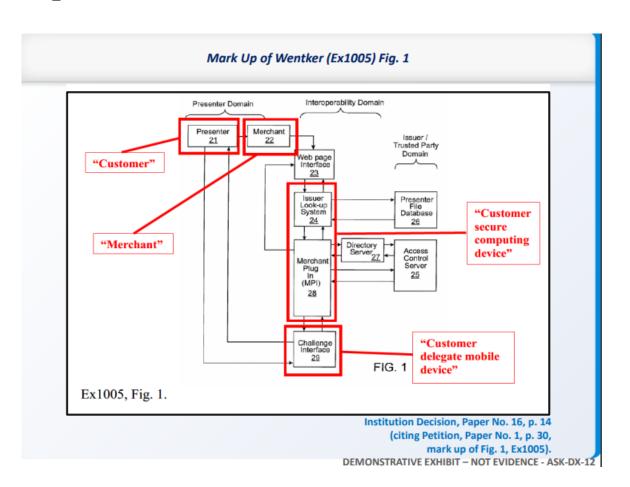
- At this stage, panel is very familiar with the record
- General technology overview typically not helpful
- Focused discussions on disputed technical issues can be helpful
- Demonstratives limited to what is already of record
- Type of hearing: virtual or in-person
- Showing animation and video require advance approval



### **Demonstratives**

- Demonstratives must be filed no later than the time of the hearing (can be modified)
- PTAB hearing rooms contain a document camera projector and laptop projector
- Parties must provide their own laptop
- Currently, PTAB has HDMI, VGA, and Mac connections only
- Different judges use demonstratives differently







### Applying the Wands Factors to EP '721

The quantity of experimentation necessary

Routine experimentation will suffice because all of the steps needed to make and purify Compound 3 were known (Ex. 1011, Crimmins Decl., at ¶ 64)

- The amount of direction or guidance presented
  - Skilled artisans have all of the direction needed based on the disclosed structure and generally available knowledge (*Id.* at ¶¶ 49, 55, 62, *and see* Appendix B)
- The presence or absence of working examples

Dr. Hunt agrees that Compound 3 could be made (Id. at ¶ 50)

4 The nature of the invention

EP '721 discloses chemical compounds that could be readily made (Id. at  $\P\P$  49, 58)

### Applying the Wands Factors to EP '721 (Continued)

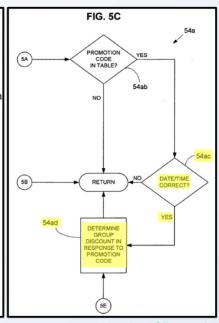
- 5 The state of the prior art
  - The organic chemistry knowledge needed for synthesizing the compounds is well known (*Id.* at ¶¶ 52, 59; Ex. 2053 at 10-22)
- 6 The relative skill of those in the art
  - Those of ordinary skill in the art are highly skilled and educated (Ex. 1011 at  $\P$  60)
- 7 The predictability or unpredictability of the art
  Synthetic organic chemistry is predictable (*Id.* at ¶ 61)
- The breadth of the subject matter

Only one compound needs to be enabled (Id. at ¶ 57)

### Ground 5 - Claim 26

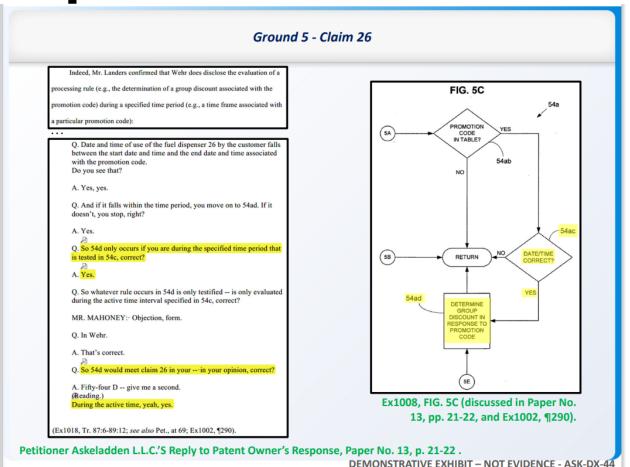
290. Wehr discloses the determination of a discount for a fuel purchase (i.e., the evaluation of a rule) only during a specified time, namely, a time frame associated with a particular promotion code. (See, e.g., Ex1008, ¶[0054] ("If a promotion code is indeed identified and transmitted, the presence of the promotion code in the loyalty promotion table 18 that is stored in the computer readable medium 38 is determined in step 54ab and, if the promotion code is present, it is determined in step 54ac whether the current date and time of use of the fuel dispenser 26 by the customer falls between the start date/time and the end date/time associated with the promotion code. If the current date and time does fall between the start and end dates and times, a group discount associated with the promotion code is determined in step 54ad, with the group discount being a discount applicable to one or more POS systems, including the POS system 20.

Ex1002, Zatkovich Declaration, ¶290 (cited in Petition, Paper No. 1, p. 69).

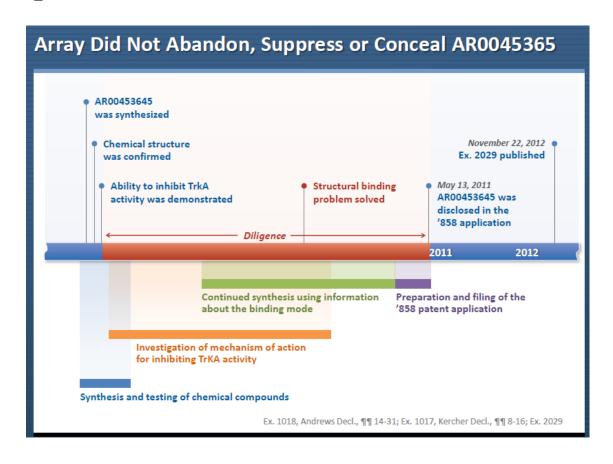


Ex1008, FIG. 5C (discussed Ex1002, ¶290).











### **Takeaways**

- Many ways to effectively describe the technology
- Most effective way may depend on (i) the technology itself or (ii) the issues presented in the pleadings
- Focus on describing the technology that is important; discuss related technology, as needed
- Make effective use of expert declarations
- Oral hearings should not be technology tutorials



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