

Patent Owner Seasonal Specialties, LLC's
Oral Argument Demonstrative Slides

Before the Patent Trial and Appeal Board
November 19, 2025

LEDUp Manufacturing Group Ltd. v. Seasonal Specialties, LLC,
IPR2024-01258 (No. 11,096,252), -01259 (No. 11,533,794)

LEDUp Provided Improper Evidence and **Argument on Reply**

All references to documents and page numbers are to those in the -01258 IPR ('252 Patent). Similar references as to the -01259 IPR ('794 Patent) are provided in PO's Sur-Reply (Paper No. 18).

Petitioner's Ground #5: Smith + Inoue

- Argues that claims 2–6, 8 and 9 are invalid as obvious over U.S. Published App. No. 2005/0168162 to Inoue (EX1003) in view of U.S. Patent No. 4,675,575 to Smith et al (EX1005). Paper No. 2 (Petition) at 46–55; *see also* Paper No. 13 (Institution Decision) at 26–29; Paper No. (Reply) at 6–18.

2. The resistor bypass circuit of claim 1, where the circuit is series-parallel connected.

3. The resistor bypass circuit of claim 1 wherein at least one of the light sources is a semiconductor providing a twinkling effect, and wherein the semiconductor light source utilizes electronic circuits that control the flashing rate of the light source.

4. The resistor bypass circuit of claim 1, wherein the LED light source uses 0.20 watts or less.

5. The resistor bypass circuit of claim 1, at least one of the light sources is a semiconductor light source providing a twinkling effect.

6. The resistor bypass circuit of claim 1, at least one of the light sources is a semiconductor light source utilizing electronic circuits that control the flashing rate of the light source, which would only affect the individual lighting element as the resistive bypass would allow current to continue to flow in remaining lighting elements in the series circuit.

7. The resistor bypass circuit of claim 1, wherein said light source is a blinking LED with a first state allowing current to flow through the device and a second state where the light source is an open circuit, whereby remaining light sources in the light string operate with current passing through the bypass resistor when the light source is in the second state.

8. The resistor bypass circuit of claim 1 being utilized in AC or DC circuits powered from a power source selected from the list consisting of batteries, step down transformers, AC utility power, or converters from AC to DC or DC to AC power, pulsed DC, and filtered or unfiltered DC, or partially filtered AC.

9. A resistor bypass circuit for a series lighting circuit comprising a plurality of serially connected LED light sources and a bypass resistor being connected in parallel with at least one of the respective light sources, said bypass resistor being in circuit and conducting current at all times when current is flowing through the circuit regardless of whether the LED light sources are conducting current there-through and wherein said bypass resistor is capable operating on a one hundred percent duty cycle further including an LED flashing light source which includes a flashing circuit which causes the entire light circuit to flash.

Petitioner's Ground #5: Smith + Inoue

- Inoue (EX1003) uses *light emitting diodes* (“LEDs”)

(19) United States		
(12) Patent Application Publication		
Inoue		
(10) Pub. No.: US 2005/0168162 A1		
(43) Pub. Date: Aug. 4, 2005		
(54) LIGHTING DEVICE AND LIGHTING SYSTEM	(52) U.S. Cl. 315/225; 315/224; 315/291	
(75) Inventor: Takao Inoue, Kawagoe-shi (JP)	(57) ABSTRACT	
Correspondence Address: ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006 (US)		
(73) Assignee: PIONEER CORPORATION, Tokyo (JP)	First resistors (R1, R2) for setting a forward current value are connected in series to light-emitting diodes (LED 1, LED 2) respectively to constitute first serial circuits (112, 113), which are connected to an input terminal (111). Second serial circuits (115, 116) are connected in parallel to the first serial circuits (112, 113) respectively. The second serial circuits (115, 116) are constituted by a combination of a Zener diode (ZD1) and a second resistor (R3), and another combination of a Zener diode (ZD2) and a second resistor (R4). When a higher voltage than rated voltages of the light-emitting diodes (LED 1, LED 2) is applied, the Zener diodes (ZD1, ZD2) shunt current into the second serial circuit (115, 116) to allow the light-emitting diodes (LED 1, LED 2) to light up at desirable luminance levels different from each other. When a supplied power voltage decreases, current is not shunted, so that the same forward current flows through the light-emitting diodes (LED 1, LED 2), allowing the light-emitting diodes (LED 1, LED 2) to go off at the same timing.	
(21) Appl. No.: 11/046,880		
(22) Filed: Feb. 1, 2005		
(30) Foreign Application Priority Data		
Feb. 2, 2004 (JP) 2004-025499		
Publication Classification		
(51) Int. Cl.⁷ H05B 37/02		

Petitioner's Ground #5: Smith + Inoue

- Smith (EX1005) also uses LEDs.

United States Patent [19]		[11] Patent Number:	4,675,575
Smith et al.		[45] Date of Patent:	Jun. 23, 1987
[54]	LIGHT-EMITTING DIODE ASSEMBLIES AND SYSTEMS THEREFORE		
[75]	Inventors: Elmer L. Smith , Scottsdale; Gerold E. McLarty , Phoenix; Geraldine L. Smith , Scottsdale, all of Ariz.		
[73]	Assignee: E & G Enterprises , Scottsdale, Ariz.		
[21]	Appl. No.: 630,422		
[22]	Filed: Jul. 13, 1984		
[51]	Int. Cl. ⁴ H05B 37/00		
[52]	U.S. Cl. 315/185 S; 250/552; 250/553; 313/110; 313/498		
[58]	Field of Search 313/498, 110; 250/552, 250/553; 315/185 S		
[56]	References Cited		
	U.S. PATENT DOCUMENTS		
	1,974,472	9/1934	Seghers 315/185 S
	3,188,512	6/1965	Moore 313/110
	3,462,632	8/1969	Russi 313/110
	3,596,136	7/1971	Fischer 250/552
	3,780,357	12/1973	Haltz 313/498
	3,834,883	9/1974	Klein 313/499
	velope may be additionally filled with light-conducting epoxy, light-conducting liquid or light-conducting gas and sealed for improved light transmission and dispersion characteristics. The light-emitting diodes may include an improved base with light-emitting diode leads disposed approximately perpendicular to the axis of the envelope for bulb stability and for enabling the bulb to stand upright on the branches. Both the envelope and the optical spheres include light-conducting glass or plastic material. The spheres may be either hollow or spherical and may be of a uniform or a mixed size. Additionally, the balls may be large for stacking in single file within the envelope or centrifuged to the sides of the envelope with the center devoid of spheres. The light-emitting diodes may be adapted for use as Christmas tree strings and various AC and DC control circuits are provided for driving the light-emitting diodes, for blinking effects, for alternating between two colors, for alternating between three colors, for improving the length of the string and uniformity of intensity of illumination and the like. In a preferred embodiment of the Christmas tree string of lights, a master trunk line and a plurality of limb lines are provided. The limb lines plug		

Petitioner's burden to show motivation

- A challenger asserting obviousness based on a combination of prior-art references must demonstrate by a preponderance of the evidence a reason or motivation to combine those references. *See, e.g., Intel Corp. v. Besang Inc.*, IPR2023-00991, 2024 WL 5076376, at *20 (PTAB Dec. 11, 2024).

Cited in Paper No. 17 (Sur-Reply) at 4–5.

The Petition lacked a motivation to combine

E. Ground 5: Inoue in view of Smith Renders Obvious Claims 2-6, 8 and 9.

1. Motivation to Combine

Smith discloses the use of LEDs in a lighting circuit. Smith, in the description of prior art in column 1, and in the Summary of the Invention in column 2, clearly points out that LEDs can readily replace incandescent bulbs and have superior advantages to incandescent bulbs. Smith, column 2, lines 57-62; Schubert Dec. pg. 41, paragraph 4, pg. 57, paragraph 1, pg. 69, paragraph 1, pg. 70, paragraph 3, and pg. 71, paragraph 4-6. For example, LEDs have a longer lifespan, generate a much lesser amount of heat, consume less power, and are less expensive than incandescent bulbs. Schubert Dec. pg. Id. Both Inoue and Smith are in the same field of endeavor, i.e., decorative lighting circuits. Schubert Dec. pg. 35. Smith makes clear that incandescent bulbs and LEDs are known in the art and are well known to be substitutes for each other. Schubert Dec. pg. 41, paragraph 4, pg. 57, paragraph 1, pg. 69, paragraph 1, pg. 70, paragraph 3 and pg. 71, paragraph 4-6. The use of LEDs in a lighting circuit is well known. Schubert Dec. Id. The numerous record-supported advantages, set forth in Smith provide a clear motivation for use of the teachings of Smith as applied to Inoue, so as to enjoy the advantages set forth in Smith.

- **No** articulated reasoning with rational underpinning as to why a POSITA would combine Inoue (which teaches LEDs) with Smith (which also teaches LEDs).
- **No** articulated reasoning with rational underpinning as to why a POSITA would modify Inoue to reach LEDs and circuits with a twinkling effect.

Petition at 46–47 ((cited in Paper No. 17 (Sur-Reply) at 3–4).

The Petition lacked a motivation to combine

In any event, based on this record and for the purpose of institution, Petitioner does not set forth sufficient articulated reasoning with rational underpinning to support the conclusion that it would have been obvious to one of ordinary skill in the art to combine the teachings of Inoue and Smith to render obvious the subject matter of independent claim 9 and dependent claims 2–6 and 8. For example, Petitioner does not explain sufficiently why a person of ordinary skill in the art would have modified the teachings of Inoue, which teaches the use of LEDs, in view of the teachings of Smith, which also teaches LEDs. *See* Pet. 45–46. Furthermore, Petitioner does not explain sufficiently why a person of ordinary skill in the art would have modified the teachings of Inoue in view of Smith to arrive at the subject matter of claims 2–6, 8, and 9. *See* Pet. 46–55; Ex. 1001, 13:61–14:46. For example, independent claim 9 and dependent claims 3, 5, 6, and 7 are directed to LEDs and associated circuits that provide a flashing, blinking, or twinkling effect, but Petitioner does not explain sufficiently why a person of ordinary skill in the art would have modified Inoue’s LED teachings in view of Smith to include LEDs and associated circuits that provide a flashing, blinking, or twinkling effect. *See* Pet. 46–55.

Institution Decision at 28 (cited in Sur-Reply at 1).

- **No** articulated reasoning with rational underpinning as to why a POSITA would combine Inoue (which teaches LEDs) with Smith (which also teaches LEDs).
- **No** articulated reasoning with rational underpinning as to why a POSITA would modify Inoue to reach LEDs and circuits with a twinkling effect.
- The Board instituted as to all petitioned grounds per **SAS Institute v. Iancu**, 584 U.S. 357, 368 (2017).

The law prohibits improper reply matter

- (a) **Requirements of Petition.**—A petition filed under section 311 may be considered only if—...(3) the petition identifies, in writing and *with particularity*, each claim challenged, *the grounds on which the challenge to each claim is based*, and the *evidence that supports the grounds* for the challenge to each claim, including—... (B) affidavits or declarations of supporting evidence and opinions, if the petitioner relies on expert opinions

35 U.S.C. § 312(a)(3) (cited in Sur-Reply at 2)

The law prohibits improper reply matter

Examples of indications that a new issue has been raised in a reply include new evidence necessary to make out a *prima facie* case for the patentability or unpatentability of an original or proposed substitute claim, such as newly raised rationale to combine the prior art references that was not expressed in the petition. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016) (holding that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because petitioner relied on an entirely new rationale to explain why one of skill in the art would have combined the references at issue). It is also improper for a reply to present new evidence (including new expert testimony) that could have been presented in a prior filing, for example newly cited prior art references intended to “gap-fill” by teaching a claim element that was not present in

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Trial Practice Guide (November 2019) at 74 (cited in Sur-Reply at 2).

Petitioner stretches *Rembrandt* too far

Rembrandt Diagnostics, LP v. Alere, Inc., 76 F.4th 1376 (Fed. Cir. 2023)

- Patent claims related to test assay devices for biofluids. 76 F.4th at 1379.
- Alere had argued in its petition that a POSITA would be motivated to modify one reference (MacKay) from holding a single test strip in a single housing to holding multiple test strips, for the “efficiency” of allowing “multiple tests to be conducted simultaneously.” *Id.* at 1381, 1384.
- Rembrandt countered in its POR that references did not “provide the missing motivation or expectation of success” to accommodate additional test strips. *Id.*, 1384
- On reply, Alere argued that such a modification would save cost and time. *Id.*
- Outcome: Permissible reply material, because it (1) refuted Rembrandt’s assertions that there is no motivation to add multiple test strips and (2) it also properly expanded on its previously raised efficiency argument, by discussing time and cost savings.

See Sur-Reply at 3–4.

Petitioner stretches *Rembrandt* too far

Rembrandt Diagnostics, LP v. Alere, Inc., 76 F.4th 1376 (Fed. Cir. 2023)

- Patent claims related to a test assay devices for biofluids. 76 F.4th at 1379.
- Alere had also argued in its petition that a POSITA would have been motivated to modify another reference (Tydings) by removing its wicking material to “achieve the benefits of having the liquid sample contact the test strip only [at] a predetermined designated area[.]” *Id.* at 1385.
- Rembrandt countered in its POR a lack of motivation to combine because Tydings’s use of an intermediate wicking material was fundamental to its invention.
- On reply, Alere argued that such a modification would align with Tydings’s objectives of “reducing cost” and “simplifying” its device. *Id.* (cleaned up).
- **Outcome**: Permissible reply material, because it elaborated on the motivation argument that Alere had made in its petition— that there were benefits to removing the wicking material.

See Sur-Reply at 3–4.

Petitioner stretches *Rembrandt* too far

E. Ground 5: Inoue in view of Smith Renders Obvious Claims 2-6, 8 and 9.

1. Motivation to Combine

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- Petitioner articulated a motivation for replacing incandescent bulbs with LEDs.
- ***Not*** like *Rembrandt*, where the Petition included arguments of “efficiency” (MacKay) and simplicity (Tydings), to which the Petitioner could tie back its reply arguments.

Petition at 46–47 ((cited in Paper No. 17 (Sur-Reply) at 3–4).

Petitioner stretches *Rembrandt* too far

The Petition states there are numerous “*record-supported advantages* set forth in Smith that *provide a clear motivation* for use of the teachings of Smith as applied to Inoue, so as to *enjoy the advantages set forth in Smith.*” Pet.47. Dr. Schubert has further explained and clearly articulated these advantages and the *motivation* and *reasons why* a POSA would modify Inoue, i.e., to “*broaden the capabilities* of the lighting circuits disclosed by Inoue” to “include the *advanced functionality*” of Smith in Inoue. A POSA would have understood these advantages, taught in Smith, would broaden the capabilities of the LED circuit taught in Inoue to enjoy the advantages of Smith. EX1013, 99.

- Petitioner articulated a motivation for replacing incandescent bulbs with LEDs.
- ***Not*** like *Rembrandt*, where the Petition included arguments of “efficiency” (MacKay) and simplicity (Tydings), to which the Petitioner could tie back its reply arguments.

Reply at 16 (cited Sur-Reply at 4).

Petitioner’s “field of endeavor” argument fails

Further, the Petition explained Inoue and Smith are *in the same field of endeavor*. Pet. 47; EX1013, 35. Prior Art must be analogous art to the claimed invention to be a proper § 103 references. If the prior art is in the same field of endeavor, it is analogous art. In re Bigio, 381 F.3d 1320, 1325, (Fed. Cir. 2004).

Reply at 16; see also Petition at 47 (cited in Sur-Reply at 4).

Petitioner's “field of endeavor” argument fails

- Prior art references being in the same field of endeavor is not a substitute for showing motivation to combine.
- Relevant prior art and a motivation to combine are separate elements in the patent challenger's case.
- ***Wyers v. Master Lock Co.***, 616 F. 3d 1231, 1237 (Fed. Cir. 2010) (“The primary factual issues alleged to be in dispute are (1) whether the prior art references are in the same field of endeavor as the patented invention; [and] (2) whether there was sufficient motivation to combine the references[.]”)

Sur-Reply at 4.