

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SURE-FIRE ELECTRICAL CORPORATION,  
Petitioner,

v.

YONGJIANG YIN and SHENZHEN EL LIGHTING CO. LTD.,  
Patent Owner.

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Case IPR2014-01448  
Patent 7,671,279 B2

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Before DEBRA K. STEPHENS, JENNIFER S. BISK, and PETER P.  
CHEN, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

I. INTRODUCTION

A. *Background*

Sure-Fire Electrical Corp. (“Petitioner”)<sup>1</sup>, filed an *Inter Partes* Review  
Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1 and 7

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<sup>1</sup> Along with Petitioner, Best Buy Stores, L.P. and BestBuy.com  
(collectively “Best Buy”), filed the Petition for *Inter Partes* Review (Paper  
1). On May 1, 2015, Patent Owner and Best Buy jointly filed a motion to

IPR2014-01448  
Patent 7,671,279 B2

(the “challenged claims”) of U.S. Patent 7,671,279 B2 (Exhibit 1001, “the ’279 Patent”). Petitioner relied on the following references: US 6,957,001 B2 (iss. Oct. 18, 2005) (“He”) (Ex. 1004); US 3,942,859 (iss. Mar. 9, 1976) (“Korodi”) (Ex. 1005); and Anton Gustafsson and Magnus Gyllenswård, *The Power-Aware Cord: Energy Awareness through Ambient Information Display*, CHI 2005, 1423–26 (Apr. 2–7, 2005) (“Gustafsson”) (Ex. 1003). Yongjiang Yin and Shenzhen El Lighting Co. Ltd. (collectively “Patent Owner”), filed a Patent Owner’s preliminary response thereto (Paper 10, “Prelim. Resp.”).

On March 4, 2015, we instituted an *Inter Partes* review of claims 1 and 7 based upon Petitioner’s assertion that claims 1 and 7 are unpatentable under 35 U.S.C. § 103(a), for obviousness over Gustafsson and He (Paper 13 (“Inst. Dec.”)).

In response to Petitioner’s Request for Rehearing under 37 C.F.R. § 42.71(d) filed March 18, 2015 (Paper 15) (“Req. for Reh’g”), we modified our *inter partes* review based on Petitioner’s assertion that claims 1 and 7 are unpatentable under 35 U.S.C. § 103(a), for obviousness over He and Korodi (Paper 25 (“Dec. on Req. for Reh’g”)).

Accordingly, we instituted trial for both challenged claims, claims 1 and 7, on the grounds of unpatentability below.

Claims	Basis	References
Claims 1 and 7	§ 103(a)	Gustafsson and He

terminate proceedings between them (Paper 21). We granted that termination (Paper 24); thus, Best Buy is no longer a party to this review.

Claims	Basis	References
Claims 1 and 7	§ 103(a)	He and Korodi

After institution of trial, Patent Owner filed a Patent Owner's Response (Paper 27 ("PO Resp.)) and Petitioner filed a Reply to the Patent Owner's Response (Paper 38 ("Pet. Reply")).

An oral hearing was held on January 11, 2016, a transcript of which has been entered into the record (Paper 54 ("Tr.")).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons given herein, Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable.

#### *B. Related Matters*

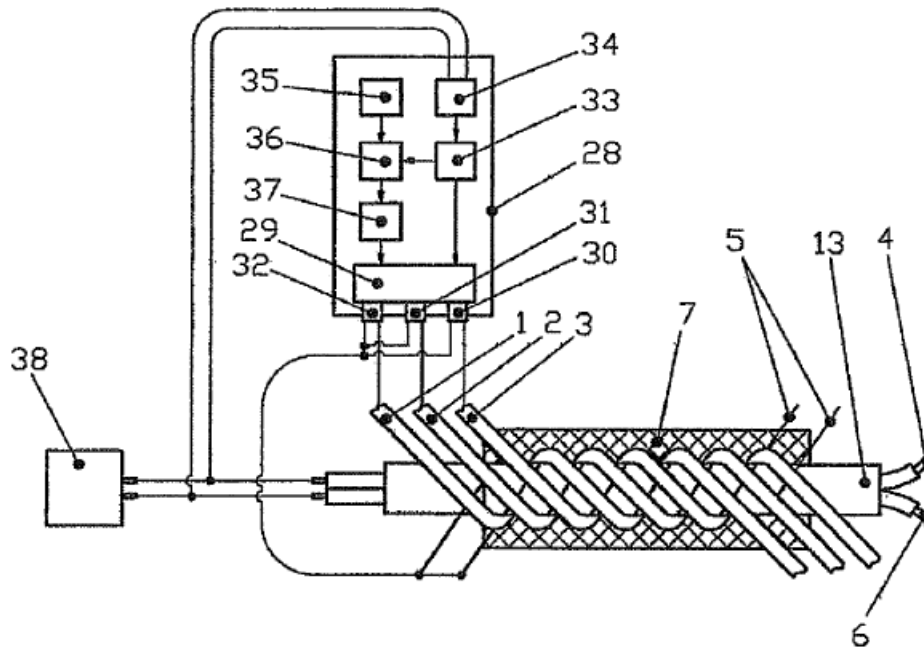
Patent Owner and Petitioner both identify, as a related matter, the co-pending district court case asserting the '279 Patent, *in Shenzhen EL Lighting Technology Co., LTD et al. v. Sure-Fire Electrical Corp. et al.*, No. 1:14-cv-00727-PAB (D. Colo.) (Pet. 7; Paper 8, 1, § II).

#### *C. '279 Patent (Ex. 1001)*

The '279 Patent, titled "CURRENT-SEEN CABLE," issued on March 2, 2010 (Ex. 1001). The '279 Patent describes an electroluminescence power or signal cable (*id.* at Abstract, 1:15–29). According to the '279 Patent, a purpose of the invention is to provide a current-seen cable which combines an electroluminescence cable and various power or signal cords, having a simple structure and a visual indicator of its live state (*id.* at 1:33–37).

Specifically, the '279 Patent describes a cable which includes a main power or signal cord and a plurality of electroluminescence cords (*id.* at Abstract, 1:41–43).

Figure 1 is reproduced below:



**FIG 1**

Figure 1, reproduced above, is a schematic diagram of an example configuration (*id.* at 2:15–16). In Figure 1, electroluminescence cored bars (or electroluminescence cored cords) 1, 2, 3 are made of metal foil strip 8 (*see* Fig. 2) or metal foil wire 9 (*see* Fig. 3) coated with insulating medium layer 10, layer 11 (which is a mixture of fluorescent powder and binder), and transparent conductive layer 12 (Ex. 1001, 4:9–16, Fig. 1). An insulated power cord forms a central axis, and includes live wire 4, zero phase wire 6, and insulation layer 13 (*id.* at 4:18–20). Bare metal wire 5 intertwists helically the insulated power cord (*id.* at 4:20–21). Electroluminescence cored bars 1, 2, 3 intertwist helically on the central axis so that transparent conductive layer 12 is in contact with bare metal wire 5 (*id.* at 4:21–25).

The whole cable is encapsulated by transparent plastics layer 7 to form a current-seen cable (*id.* at 4:25–27).

Metal base strips for each of electroluminescence cored bars 1, 2, 3 are connected to AC output line of outputs 32, 31, 30 of AC drivers 28 via a wire (*id.* at 4:38–48). Bare metal wire 5, as a central axis, is connected to another AC (alternating current) output line of outputs 32, 31, and 30 connected to AC drivers 28 (*id.* at 48–50). Input power ends of driver 28 are connected to live wire 4 and zero phase line 6 of the power (*id.* at 4:50–53).

In another embodiment, three electroluminescence cords 40, 41, and 42 are intertwined helically, forming an electroluminescence cable (*id.* at 6:10–12). A main cord is arranged in the central axis of the formed electroluminescence cable or lateral to the electroluminescence cable (*id.* at 6:18–20).

#### *D. Claims*

Both of the challenged claims, claims 1 and 7, are independent claims. Claims 1 and 7 are reproduced below:

1. A current-seen cable, includes a driver, a main cord, a bare metal wire, a plurality of electroluminescence cored bars or electroluminescence cored cords and an outer transparent plastic layer, wherein said a plurality of electroluminescence cored bars or electroluminescence cored cords are arrayed abreast and are intertwined helically in sequence to form an electroluminescence cable, the bare metal wire is arranged in the center of the current-seen cable or lateral to the current seen cable and is in contact with a conductive layer of each electroluminescence cored bar or electroluminescence cored cord; a metal base strip of each electroluminescence cored bar or a conductive wire of each electroluminescence cored cord and the bare metal wire are connected to each corresponding

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