

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT A. KIMBALL

Appeal No. 1999-2618
Application 08/647,223¹

ON BRIEF

Before BARRETT, BARRY, and LEVY, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed May 9, 1996, entitled "Personal Electronic Device Having EL Lamp And Buzzer Powered From A Single Inductor."

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This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 3, 5-7, and 11. Claims 2, 4, 8-10, and 12-15 stand objected to as depending from a rejected claim. Claims 16 and 17 stand allowed.

We reverse.

BACKGROUND

The invention relates to a power supply or personal electronic device having a single inductor for powering an electroluminescent (EL) lamp and a buzzer. The EL lamp and buzzer are electrically coupled together to the output of the inverter and are in parallel with each other (figure 4) or are coupled in series between a source of direct current and ground (figure 5).

Claims 1 and 7 are reproduced below.

1. A power supply for producing pulses from direct current to operate an EL lamp and a buzzer, said power supply comprising:

an inductor and a first transistor connected in series between a source of said direct current and ground and having a junction therebetween;

an output terminal;

a diode coupling said junction to said output terminal;

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wherein said EL lamp and said buzzer are each coupled to said output terminal;

a semiconductor switch coupled in series with said buzzer, wherein said switch and said buzzer are coupled between said output terminal and ground.

7. A personal electronic device having an EL lamp and a buzzer, said device comprising:

a low voltage source of direct current;

an inverter coupled to said source for converting direct current into high voltage pulses, said inverter including a single inductor and an output;

a buzzer having a first terminal and a second terminal;

an EL lamp having a first terminal and a second terminal;

wherein the first terminal of said EL lamp is coupled to the first terminal of said buzzer and to said output.

The Examiner relies on the admitted prior art (APA) of Appellant's figure 2, which is disclosed to correspond to U.S. Patent 4,529,322, to Ueda, issued July 16, 1985.

Claims 1, 3, 6, 7, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the APA.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the APA.

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We refer to the final rejection (Paper No. 10) (pages referred to as "FR__") and the examiner's answer (Paper No. 21) (pages referred to as "EA__") for a statement of the Examiner's position, and to the appeal brief (Paper No. 20) (pages referred to as "Br__") for a statement of Appellant's arguments thereagainst.

OPINION

Anticipation

"Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Claims 1, 3, and 6

Appellant argues that claim 1 is not anticipated because the APA does not teach the claimed configuration that "said switch and said buzzer are coupled between said output terminal and ground." The Examiner finds (FR8): "The buzzer 26 is coupled between the output terminal (through EL lamp 12 and the supply voltage) and ground (through switch 25 and transistor 22)." Appellant argues that the

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Examiner's claim interpretation is erroneous and provides a declaration² by Mr. Kerwin to that effect. Mr. Kerwin addresses the Examiner's statement and testifies that one cannot "couple" a signal past a source of voltage because the source is considered to have zero impedance (declaration, p. 3). Mr. Kerwin states his opinion that (declaration, p. 3): "In my experience, the Examiner's use of the word 'coupled' in the context quoted above is not consistent with the ordinary and accepted use of the word, and its cognates, in the art of electrical engineering." The Examiner responds that the broadest reasonable interpretation to one of ordinary skill in the lighting art is "'coupled' or 'coupling' means to 'join' or 'link' at least two elements together" (EA6).

As stated in In re Cortright, 165 F.3d 1353, 1358, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999):

² The declaration of Mr. Kerwin is entitled "Affidavit Under Rule 131." However, since the paper is not signed under oath, but contains the statements in lieu of oath of 37 CFR § 1.68, it is properly termed a "declaration" rather than an "affidavit." Also, since the purpose of the declaration is to traverse a ground of rejection, not to swear back of the date of a reference, it is a declaration pursuant to 37 CFR § 1.132 (Rule 132), not § 1.131 (Rule 131).

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Although the PTO must give claims their broadest reasonable interpretation, this interpretation must be consistent with the one that those skilled in the art would reach. See In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997) ("[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art"); In re Bond, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990) ("It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, . . . and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.") (emphasis added); see also M.P.E.P. § 2111.01 (" [T]he words of a claim . . . must be read as they would be interpreted by those of ordinary skill in the art.").

"[W]here there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meaning." Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998).

The claims are directed to electrical circuits and, therefore, the words of the claims must be given the meanings as they would be understood by one of ordinary skill in the electrical engineering art. Appellant supplies a declaration by Mr. Kerwin to address the meaning to one of ordinary skill in the electrical engineering art.

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Mr. Kerwin's credentials are very impressive, and we find him to be an expert in electrical engineering. We agree with Mr. Kerwin that one of ordinary skill in the electrical engineering art would interpret "coupling" as requiring the ability to transfer energy or signals from one circuit to another either electrically or magnetically. This is consistent with standard electrical engineering dictionary definitions. See The New IEEE Standard Dictionary of Electrical and Electronics Terms (5th ed., IEEE, Inc. 1993) ("coupling . . . The association of two or more circuits or systems in such a way that power or signal information may be transferred from one to another."); Weik, Communications Standard Dictionary (3d ed., Chapman & Hall 1996) ("coupling: The transfer of energy from one conductive or dielectric medium, such as an optical waveguide or wire, to another, including fortuitous transfer.").

The meaning of "coupled" depends on the context. Compare Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 582, 56 USPQ2d 1865, 1882 (Fed. Cir. 2000) (claim 9 recites "the permanent magnets of the piston and body being polarized so as to magnetically couple the body

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to the piston," which requires a magnetic joining in a mechanical sense), cert. granted 69 U.S.L.W. 3779 (2001) with Eaton v. Evans, 204 F.3d 1094, 1096, 53 USPQ2d 1696, 1697 (Fed. Cir. 2000) (the interference count recites "complimentary bit lines coupled to a sense amplifier," "first plate electrode of said first capacitor coupled selectively to said first bit line," etc., which requires power or signal transfer in the electrical sense). While we agree with the Examiner that "coupled" can mean mechanically "joined" or "linked," we consider the mechanical definition inappropriate in the electrical context of the present claims. Although we do not disagree with the Examiner that the relevant art could be considered to be the (electrical) lighting art, merely asserting that one skilled in the lighting art would interpret "coupled" as "joined" or "linked" is not persuasive, especially in the face of evidence by Appellant in the form of the Kerwin declaration. Thus, we conclude that the Examiner erred in interpreting the claims.

Under the electrical definition of "coupling" which requires the ability to transfer energy or signals from one

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circuit to another either electrically or magnetically, it is clear that the APA does not teach the configuration of "said switch and said buzzer are coupled between said output terminal and ground." The buzzer 26 and switch 22 or 25 in the APA are electrically coupled between the source 13 and ground and are not electrically coupled to the output terminal (the collector of transistor 21). Accordingly, the anticipation rejection of claims 1, 3, and 6 is reversed.

Claims 7 and 11

Appellant argues that claim 7 is not anticipated because the APA does not teach the configuration of "the first terminal of said EL lamp is coupled to the first terminal of said buzzer and to said output." The Examiner finds "the first terminal of the EL lamp 12 (the junction connecting diode 16 and transistor 21 together) is coupled to the first terminal of the buzzer (the terminal through the switch 25) and to the output" (FR8). Appellant argues (Br9): "One cannot couple through back to back diodes or through a power supply (see affidavit of Professor Kerwin)." Mr. Kerwin states (declaration, p. 4): "Oppositely poled diodes are used in electrical circuits for isolation, not

coupling; one cannot couple a signal or transfer energy from the collector of transistor 22 to the collector of transistor 21 through oppositely poled diodes." The Examiner again relies on the interpretation that "coupled" broadly means "joined" or "linked" (EA7).

For the reasons discussed in connection with claim 1, we conclude that the Examiner erred in interpreting the term "coupled." The first terminal of the EL lamp 12 (the node at the collector of transistor 21) is coupled to the output (the node at the collector of transistor 14). However, the first terminal of buzzer 26 (the node connected to switch 25) is not coupled, in the electrical meaning of the term, to the output because the back-to-back arrangement of diodes prevents any energy or signal transfer. Accordingly, the anticipation rejection of claims 7 and 11 is reversed.

Obviousness

The obviousness rejection of claim 5 does not cure the deficiencies of the APA with respect to claim 1. Accordingly, the obviousness rejection of claim 5 is reversed.

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CONCLUSION

The rejections of claims 1, 3, 5-7, and 11 are reversed.

REVERSED

PATENT

LEE E. BARRETT)	
Administrative Patent Judge)	
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)	BOARD OF
LANCE LEONARD BARRY)	APPEALS
Administrative Patent Judge)	AND
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