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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/212,932	03/14/2014	Robert T. Thurman	WT-0222-US-NP	5460

90487 7590 02/01/2019

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ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
02/01/2019	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT T. THURMAN and KEVIN L. KRYSIAK

Appeal 2018-004534
Application 14/212,932
Technology Center 3700

Before MICHAEL C. ASTORINO, CYNTHIA L. MURPHY, and BRUCE T. WIEDER, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants[1] appeal under 35 U.S.C. § 134 from the Examiner's rejections of claims 1, 4–6, 9–11, 13, 14, and 17–28.[2] We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We REVERSE.

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[1] "The real party in interest is Wilson Sporting Goods Co." (Appeal Br. 1.)

[2] "Claim 29 is allowed." (Final Action 9.)

STATEMENT OF THE CASE

The Appellants' invention relates to "[a] game ball" that "supports electronics." (Spec., Abstract.)

Illustrative Claim

1. An apparatus comprising:
a game ball;
electronics to sense motion of the game ball;
a potting compound encapsulating the electronics, the potting compound forming an encapsulating body sized and shaped to fit within a cavity of the game ball;
an electrical conductor extending from the electronics to an exterior of the encapsulating body, wherein at least a portion of the encapsulating body seals about and against the electrical conductor;
an electrically conductive line to extend along a surface of the game ball, the electrically conductive line electrically connected to the electrical conductor; and
a plug at least partially received within the cavity between the encapsulating body and an exterior of the game ball, wherein the electrically conductive line is embedded within the plug.

Rejections

I. The Examiner rejects claims 1, 4–6, 9–11, 17–19, and 28 under 35 U.S.C. § 102 as anticipated by King.[3] (Final Action 2.)

II. The Examiner rejects claims 20, 21, and 23–25 under 35 U.S.C. § 103 as unpatentable over King. (Final Action 6.)

III. The Examiner rejects claims 13, 14, 22, 26, and 27 under 35 U.S.C. § 103 as unpatentable over King and Steidle.[4] (Final Action 8.)

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[3] US 2016/0001136 A1, published Jan. 7, 2016. Our quotations from this reference will omit the bolding of drawing-associated reference numbers.

[4] US 2010/0130315 A1, published May 27, 2010.

ANALYSIS

Claims 1 and 20 are the independent claims on appeal, with the rest of the claims on appeal (i.e., claims 4–6, 9–11, 13, 14, 17–19, and 21–28) depending therefrom. (*See* Appeal Br., Claims App.) Independent claim 1 recites an "apparatus" comprising a "game ball," and independent claim 20 recites a "game ball." (*Id.*)

Independent Claim 1

The Examiner determines that King discloses the apparatus recited in independent claim 1. (S*ee* Final Action 2–3.) We are persuaded by the Appellants' arguments that the Examiner does not sufficiently support this determination. (*See* Appeal Br. 4–7; *see also* Reply Br. 1–3.)

Independent claim 1 requires the apparatus to comprise a "potting compound" that "form[s] an encapsulating body sized and shaped to fit within a cavity of the game ball," and a "plug" that is "at least partially received within the cavity between the encapsulating body and an exterior of the game ball." (Appeal Br., Claims App.)

King discloses a sports ball 100 in which an electronics pack 120 is placed in a pocket 150 of the ball's shell 110. (*See* King ¶ 38, Fig. 1A.) King discloses that "the electronics pack 120 can be securely held in the pocket 150 by installing a cap 220 in the opening defined by the pocket 150." (*Id.* ¶ 67, *see* Fig. 2.) King also discloses that "rather than using a cap 220, the electronic pack 120 can be secured in the pocket 150 by adding another material to fill the open portions within the pocket 150 surrounding the electronics pack 120." (*Id.* ¶ 68.) With the latter alternative, when a cap 220 is not used, a curable liquid material is "poured

or injected into the pocket 150 to fill the voids around the electronics pack 120 using a potting process." (*Id.*)

The Examiner finds that King discloses a "potting process," and thus discloses the "potting compound" and the "encapsulating body" recited independent claim 1. (Final Action 3.) The Examiner also finds that King discloses a "[c]ap 220," and thus discloses the "plug" recited in independent claim 1. (*Id.*)

We agree with the Appellants that King does not disclose an apparatus having *both* the "encapsulating body" and the "plug" required by independent claim 1. (*See* Appeal Br. 6–7.) As indicated, above, King discloses that a potting process can be used "rather than using a cap 220." (King ¶ 68.) Thus, insofar as King's cap 220 qualifies as the "plug" recited in independent claim 1, King does not disclose using a potting compound in conjunction with this cap 220.

The Examiner also seems to imply that, in King's sports ball 100, the pocket 150 itself can constitute the "encapsulating body." (Answer 9.) But the Examiner does not explain adequately how King's pocket 150 satisfies the further requirement in independent claim 1 that a "potting compound" forms the encapsulating body, and that this potting compound also "encapsulat[es] the electronics." (Appeal Br., Claims App.) King does not disclose that its pocket 150 is formed by a potting process (*see* King ¶ 40), and King describes its electronics package 120 as "installed in the pocket 150" (*id.* ¶ 54).

Thus, we do not sustain the Examiner's rejection of independent claim 1 under 35 U.S.C. § 102 as anticipated by King (Rejection I).

Independent Claim 20

The Examiner determines that the game ball recited in independent claim 20 would have been obvious over the teachings of King. (*See* Final Action 6–7.) We are persuaded by the Appellants' arguments that the Examiner does not sufficiently support this determination. (*See* Appeal Br. 9–11; *see also* Reply Br. 6–8.)

Independent claim 20 requires the game ball to comprise "an inflatable body," and "an electrical conductive line" that "extend[s] along a surface of the inflatable body at least 60 degrees about the inflatable body." (Appeal Br., Claims App.)

King's sports ball 100 includes a "secondary coil 130" that is provided for the purpose of inductively charging the ball by placing it on a charging dock 310 having "primary coils 340." (King ¶ 70.) King specifically teaches that the "key factors" for "maximizing the inductive transmission of electric power from the charging dock 310 to the sports ball 100" are "proper alignment" and "close proximity" of the respective coils 130 and 340. (*Id.* ¶ 75.)

The Examiner finds that, in King's sports ball 100, the secondary coil 130 is an electrically conductive line that extends forty-five degrees about the ball's inflatable body. (*See* Final Action 7.) The Examiner determines that "it would be obvious to modify King's coil at 45 degrees to any number of degrees about the ball, based on the size and number of the panels or the type of ball used, to provide greater functionality and convenience for the user when charging the battery." (Answer 14.) According to the Examiner "shifting the particular placement of a coil from 45 degrees to 60 degrees should be held unpatentable because shifting the

placement of the coil would not have modified the operation of inductively charging a battery in an instrumented sporting device." (*Id.* at 13.)

We agree with the Appellants that the Examiner "fail[s] to articulate a valid rationale" for the proposed modification. (Appeal Br. 6.) As indicated above, King teaches that "proper alignment" and "close proximity" with the primary coil 340 in the charging dock 310 are the "key factors" that one of ordinary skill in the art should keep in mind when modifying King's secondary coil 130 for inductive-charging purposes. (King ¶ 70.) The Examiner does not explain adequately why "shifting the placement" of the secondary coil 130 in King's sports ball 100 would accommodate these "proper alignment" and "close proximity" factors. We note that, although King may teach that the type, size, and/or panel-construction of the sports ball 100 can vary (*see* King ¶ 39), these key factors would remain the same for inductive-charging purposes.

Thus, we do not sustain the Examiner's rejection of independent claim 20 under 35 U.S.C. § 103 as unpatentable over King (Rejection II).

Dependent Claims 4–6, 9–11, 13, 14, 17–19, and 21–28

The Examiner's further findings and determinations with respect to the dependent claims do not compensate for the above-discussed shortcomings in the rejections of independent claims 1 and 20. (*See* Final Action 3–5, 7–9.)

Thus, we do not sustain the Examiner's rejection of dependent claims 4–6, 9–11, 17–19, and 28 under 35 U.S.C. § 102 as anticipated by King (Rejection I); we do not sustain the Examiner's rejection of dependent claims 21 and 23–25 under 35 U.S.C. § 103 as unpatentable over King (Rejection II); and we do not sustain the Examiner's rejection of dependent

claims 13, 14, 22, 26, and 27 under 35 U.S.C. § 103 as unpatentable over King and Steidle (Rejection III).[5]

DECISION

We REVERSE the Examiner's rejection of claims 1, 4–6, 9–11, 13, 14, and 17–28

REVERSED

[5] Steidle is relied upon to teach "a conductive line extending along a seam." (Final Action 8.) Although the Examiner finds that Steidle teaches electrically conductive lines 30 that extend "at least 180°" about the inflatable body" (*id.* at 9), these "lines 30" are cables 30 for connecting light emitting diodes to a power source (*see* Steidle ¶ 27). Steidle does disclose a coil 100 for inductive charging, but it "surrounds the valve 100 in "a circular manner," that is not described or depicted as extending more than sixty degrees about the ball's inflatable body. (*Id.* ¶ 26, *see also* Fig. 3.)