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6 UNITED STATES PATENT AND TRADEMARK OFFICE

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8
9 BEFORE THE BOARD OF PATENT APPEALS
10 AND INTERFERENCES

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13 *Ex parte* GLENN E. POPE and MARK J. REIMER

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15 Appeal 2008-1894
16 Application 10/309,976
17 Technology Center 3600

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20 Decided: December 4, 2008

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23 *Before:* WILLIAM F. PATE, III, JENNIFER D. BAHR, and
24 FRED A. SILVERBERG, *Administrative Patent Judges.*

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26 SILVERBERG, *Administrative Patent Judge.*

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29 DECISION ON APPEAL

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31 STATEMENT OF THE CASE

32 Appellants appeal under 35 U.S.C. § 134 (2002) from a Final Office
33 Action of claims 1-4, 6, 8-12, 14 and 16. We have jurisdiction under 35
34 U.S.C. § 6(b) (2002).
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1 The following rejection is before us for review:
2 Claims 1-4, 6, 8-12, 14 and 16 are rejected under 35 U.S.C. § 103(a)
3 (2004) as being unpatentable over AAPA in view of Walraven.
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5 ISSUES

6 The issue before us is whether the Appellants have shown that the
7 Examiner erred in rejecting claims 1-4, 6, 8-12, 14 and 16 over AAPA in
8 view of Walraven. The issue turns on whether: (1) Walraven is non-
9 analogous art, and (2) the Examiner has failed to articulate a reason with
10 rational underpinning to combine the teachings of AAPA in view of
11 Walraven.
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13 FINDINGS OF FACT

14 We find that the following enumerated findings are supported by at
15 least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d
16 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for
17 proceedings before the Office).

18 1. The Appellants' Specification discloses a harvesting apparatus
19 having a grain compartment 64; a casting 120 forming a portion of
20 a bottom of the grain compartment; the casting having at least one
21 opening 170a, 170b, 172a, 172b therethrough that serves as a
22 bottom drain or cleanout; the opening extending throughout a
23 depth of said casting; and a plug 180, 182 having a plug body 194,
24 196, 204, 206 partially inserted into the opening (Specification 10,
25 l. 3-Specification 11, l. 2).

1 rejection [under § 103] by showing insufficient evidence of *prima facie*
2 obviousness or by rebutting the *prima facie* case with evidence of secondary
3 indicia of nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355
4 (Fed. Cir. 1998)).

5 “Section 103 forbids issuance of a patent when ‘the differences
6 between the subject matter sought to be patented and the prior art are such
7 that the subject matter as a whole would have been obvious at the time the
8 invention was made to a person having ordinary skill in the art to which said
9 subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727,
10 1734 (2007). The question of obviousness is resolved on the basis of
11 underlying factual determinations including (1) the scope and content of the
12 prior art, (2) any differences between the claimed subject matter and the
13 prior art, (3) the level of skill in the art, and (4) where in evidence, so-called
14 secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18
15 (1966). *See also KSR*, 127 S. Ct. at 1734 (“While the sequence of these
16 questions might be reordered in any particular case, the [*Graham*] factors
17 continue to define the inquiry that controls.”)

18 In *KSR*, the Supreme Court emphasized “the need for caution in
19 granting a patent based on the combination of elements found in the prior
20 art,” *id.* at 1739, and discussed circumstances in which a patent might be
21 determined to be obvious. In particular, the Supreme Court emphasized that
22 “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of
23 *Hotchkiss*, 11 How. 248.” *KSR*, 127 S. Ct. at 1739 (citing *Graham*, 383 U.S.
24 at 12), and reaffirmed principles based on its precedent that “[t]he
25 combination of familiar elements according to known methods is likely to be

1 obvious when it does no more than yield predictable results.” *Id.* The Court
2 explained:

3 When a work is available in one field of endeavor,
4 design incentives and other market forces can
5 prompt variations of it, either in the same field or a
6 different one. If a person of ordinary skill can
7 implement a predictable variation, § 103 likely
8 bars its patentability. For the same reason, if a
9 technique has been used to improve one device,
10 and a person of ordinary skill in the art would
11 recognize that it would improve similar devices in
12 the same way, using the technique is obvious
13 unless its actual application is beyond his or her
14 skill.

15 *Id.* at 1740. The operative question in this “functional approach” is thus
16 “whether the improvement is more than the predictable use of prior art
17 elements according to their established functions.” *Id.*

18 The Supreme Court stated that there are “[t]hree cases decided after
19 *Graham* [that] illustrate the application of this doctrine.” *Id.* at 1739. “In
20 *United States v. Adams*, ... [t]he Court recognized that when a patent claims
21 a structure already known in the prior art that is altered by the mere
22 substitution of one element for another known in the field, the combination
23 must do more than yield a predictable result.” *Id.* at 1739-40. “*Sakraida*
24 *and Anderson’s-Black Rock* are illustrative – a court must ask whether the
25 improvement is more than the predictable use of prior art elements according
26 to their established function.” *Id.* at 1740.

27 The Supreme Court stated that “[f]ollowing these principles may be
28 more difficult in other cases than it is here because the claimed subject
29 matter may involve more than the simple substitution of one known element

1 for another or the mere application of a known technique to a piece of prior
2 art ready for the improvement.” *Id.* The Court explained:

3 Often, it will be necessary for a court to look to
4 interrelated teachings of multiple patents; the
5 effects of demands known to the design
6 community or present in the marketplace; and the
7 background knowledge possessed by a person
8 having ordinary skill in the art, all in order to
9 determine whether there was an apparent reason to
10 combine the known elements in the fashion
11 claimed by the patent at issue.

12 *Id.* at 1740-41. The Court noted that “[t]o facilitate review, this analysis
13 should be made explicit.” *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed.
14 Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by
15 mere conclusory statements; instead, there must be some articulated
16 reasoning with some rational underpinning to support the legal conclusion of
17 obviousness”). However, “the analysis need not seek out precise teachings
18 directed to the specific subject matter of the challenged claim, for a court
19 can take account of the inferences and creative steps that a person of
20 ordinary skill in the art would employ.” *Id.*

21 The Federal Circuit recently concluded that it would have been
22 obvious to combine (1) a mechanical device for actuating a phonograph to
23 play back sounds associated with a letter in a word on a puzzle piece with
24 (2) an electronic, processor-driven device capable of playing the sound
25 associated with a first letter of a word in a book. *Leapfrog Ent., Inc. v.*
26 *Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (“[a]ccommodating
27 a prior art mechanical device that accomplishes [a desired] goal to modern
28 electronics would have been reasonably obvious to one of ordinary skill in
29 designing children’s learning devices”). In reaching that conclusion, the

1 Federal Circuit recognized that “[a]n obviousness determination is not the
2 result of a rigid formula disassociated from the consideration of the facts of a
3 case. Indeed, the common sense of those skilled in the art demonstrates why
4 some combinations would have been obvious where others would not.” *Id.*
5 at 1161 (citing *KSR*, 127 S.Ct. 1727, 1739 (“The combination of familiar
6 elements according to known methods is likely to be obvious when it does
7 no more than yield predictable results.”)). The Federal Circuit relied in part
8 on the fact that Leapfrog had presented no evidence that the inclusion of a
9 reader in the combined device was “uniquely challenging or difficult for one
10 of ordinary skill in the art” or “represented an unobvious step over the prior
11 art.” *Id.* (citing *KSR*, 127 S.Ct. at 1740-41.)

12 The analogous-art test requires that the Board show that a reference is
13 either in the field of the applicant's endeavor or is reasonably pertinent to the
14 problem with which the inventor was concerned in order to rely on that
15 reference as a basis for rejection. References are selected as being
16 reasonably pertinent to the problem based on the judgment of a person
17 having ordinary skill in the art. *In re Kahn*, 441 F.3d 977, 986-87 (Fed. Cir.
18 2006).

19 When construing claim terminology in the Patent and Trademark
20 Office, this Board is required to give the claim language its broadest
21 reasonable interpretation. *See In re Crish* 393 F.3d, 1253, 1256 (Fed. Cir.
22 2004); *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) and *In re Hyatt*,
23 211 F.3d 1367, 1372-73 (Fed. Cir. 2003).

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ANALYSIS

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2 Appellants argue claims 1, 2, 4, 6 and 8 as a group. As such, we
3 select claim 1 as representative of the group, and claims 2, 4, 6 and 8 will
4 stand or fall with claim 1. Appellants argue claims 9, 10, 12, 14 and 16 as a
5 group. As such, we select claim 9 as representative of the group, and claims
6 10, 12, 14 and 16 will stand or fall with claim 9. 37 C.F.R. §
7 41.37(c)(1)(vii) (2007). The Appellants argue claims 3 and 11 separately.

8 AAPA discloses a harvesting apparatus having a grain compartment,
9 an unloader auger extending into the grain compartment, an auger casting
10 fixed to a bottom of the grain compartment to support the auger, the casting
11 having at least one opening therethrough that serves as a bottom drain or
12 cleanout of the grain compartment, wherein the opening extends throughout
13 a depth of the casting (Fact 3). AAPA differs from the claimed subject
14 matter in that it does not disclose a plug for the bottom drain or cleanout.
15 Walraven discloses a tank 12 for grain (feed) (col. 1, l. 15) having a cleanout
16 opening, a threaded drain plug 37 inserted into the opening for facilitating
17 the cleaning of the tank and having a length substantially equal to the depth
18 of the opening (fig. 4) (Fact 4), wherein the plug 37 has a protruding part
19 that has an end including a hex socket (fig. 3) (Fact 5). We conclude that to
20 combine the teachings of AAPA and Walraven, as set forth by the Examiner
21 (Ans. 3 and 4), by providing the bottom drain or cleanout of AAPA with a
22 plug having a body as taught by Walraven would have been obvious at the
23 time the invention was made to a person having ordinary skill in the art since
24 it is a simple provision to obtain a predictable result (claims 1, 3, 9 and 11).
25 In *KSR* the Supreme Court held that if a technique has been used to improve
26 one device and a person of ordinary skill in the art would recognize that it

1 would predictably improve similar devices in the same way, using the
2 technique is obvious. *See KSR* at 1740.

3 Appellants argue that Walraven is non-analogous art as it is not within
4 the same field of endeavor as Appellants' claimed invention (Br. 8 and 13-
5 15) and is not reasonably pertinent to the problem faced by Appellants (Br. 9
6 and 15). Both Appellants' claimed invention and Walraven are directed to
7 the same problem of how to clean out the bottom of a tank. Both
8 Appellants' claimed invention and Walraven provide the same solution, that
9 is, providing access to the tank through an opening at the bottom of the tank
10 and sealing the opening by a plug when access is not required. We agree
11 with the Examiner's analysis (Ans. 5 and 6) and find that Walraven is
12 analogous art (claims 1, 3, 9 and 11).

13 Appellants further argue that Walraven does not disclose a plug
14 comprising a handle member (Br. 19-21) as called for in claims 3 and 11. In
15 support thereof, Appellants state that the ordinary and accustomed meaning
16 of the term "handle" does not include anything that can be grasped by one's
17 fingers, and the term "handle member" does not include a protruding end of
18 a "tool-engaging-plug" (Br. 20). Merriam-Webster's Collegiate Dictionary
19 (10th ed. 1996) defines the term "handle" as "a part that is designed to be
20 grasped by the hand" and "something that resembles a handle" (Fact 6).
21 Appellants are arguing a narrower limitation than is called for in the claims,
22 as claims 3 and 11 call for "a handle member" and not "a handle." We find
23 that to initially insert the drain plug 37 of Walraven in the opening in the
24 tank, the protruding part of plug 37 is grasped by the hand. Thus, the
25 protruding part of the plug 37 meets the dictionary definition of a handle.
26 Further, we find that the hex socket on the end of plug 37 (Walraven, fig. 3)

1 accommodates an end of a tool (e.g., Allen wrench) for complete insertion
2 and removal of the plug from the opening. As such, the tool (e.g., Allen
3 wrench) would be the handle. Since the hex socket is a member that assists
4 in the insertion and removal of the plug and the tool which inserts and
5 removes the plug is a handle, the hex socket is a handle member. Thus, we
6 agree with the Examiner's analysis (Ans. 7) and find that in Walraven the
7 protruding part of plug 37 is a handle member as called for in claims 3 and
8 11.

9
10 **CONCLUSION OF LAW**

11 We conclude that the Appellants have not shown that the Examiner
12 erred in rejecting claims 1-4, 6, 8-12, 14 and 16 under 35 U.S.C. § 103(a) as
13 being unpatentable over AAPA in view of Walraven, (1) as Walraven is
14 analogous art; and (2) the Examiner has articulated a reason with rational
15 underpinning to combine the teachings of AAPA and Walraven.

16
17 **DECISION**

18 The decision of the Examiner to reject claims 1-4, 6, 8-12, 14 and 16
19 over AAPA in view of Walraven is affirmed.

20 No time period for taking any subsequent action in connection with
21 this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

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23 **AFFIRMED**
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Appeal 2008-1894
Application 10/309,976

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17 THE LAW OFFICE OF RANDALL T. ERICKSON, P.C.
18 1749 S. NAPERVILLE ROAD
19 SUITE 202
20 WHEATON, IL 60187