

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LEGO SYSTEMS, INC. and
WARNER BROS. HOME ENTERTAINMENT INC.,
Petitioner,

v.

FIGUREFUN LLC,
Patent Owner.

Case IPR2018-00754
Patent 7,001,276 B2

Before HYUN J. JUNG, GEORGE R. HOSKINS, and
KEVIN W. CHERRY, *Administrative Patent Judges*.

JUNG, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Single Challenged Claim Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claim 9 of U.S. Patent No. 7,001,276 B2 is unpatentable.

A. *Procedural History*

LEGO Systems, Inc. and Warner Bros. Home Entertainment Inc. (collectively, “Petitioner”) filed a Petition (Paper 3, “Pet.”) requesting institution of an *inter partes* review of claim 9 of U.S. Patent No. 7,001,276 B2 (Ex. 1001, “the ’276 patent”). FigureFun LLC (“Patent Owner”) filed a Preliminary Response (Paper 7). Pursuant to 35 U.S.C. § 314, we instituted an *inter partes* review of claim 9 of the ’276 patent. Paper 8 (“Dec. to Inst.”). In particular, we instituted review of the only challenged claim on all presented grounds. Dec. to Inst. 24.

After institution, Patent Owner filed a Response (Paper 12, “PO Resp.”), to which Petitioner filed a Reply (Paper 17, “Pet. Reply”), and Patent Owner thereafter filed a Sur-Reply (Paper 18, “PO Sur-Reply”). An oral hearing in this proceeding was held on June 24, 2019; a transcript of the hearing is included in the record (Paper 26, “Tr.”).

B. *Related Proceedings*

The parties indicate that the ’276 patent is the subject of *FigureFun LLC v. LEGO Systems, Inc.*, Case No. 1:17-cv-01516-LPS-CJB (D. Del.) and *FigureFun LLC v. LEGO Systems, Inc.*, Case No. 2:17-cv-00182-JRG (E.D. Tex.). Pet. 1; Paper 5, 1–2.

C. Evidence Relied Upon

Petitioner identifies the following references as prior art in its asserted grounds of unpatentability:

(1) U.S. Patent No. 5,190,285, issued March 2, 1993 (Ex. 1003, “Levy”);

(2) U.S. Patent No. 6,460,851 B1, issued October 8, 2002 (Ex. 1004, “Lee”);

(3) U.S. Patent No. 6,650,870 B2, issued November 18, 2003 (Ex. 1006, “White”); and

(4) U.S. Patent No. 7,081,033 B1, issued July 25, 2006 (Ex. 1005, “Mawle”).

In support of its challenges, Petitioner relies on a Declaration of Garry Kitchen (Ex. 1002). Patent Owner proffers a Declaration of Stacy Friedman (Ex. 2001) and a Supplemental Declaration of Stacy Friedman (Ex. 2004). No deposition transcripts were filed for Mr. Kitchen or Mr. Friedman.

D. Grounds of Unpatentability at Issue

We instituted *inter partes* review of claim 9 of the ’276 patent on the following grounds:

Claim Challenged	Statutory Basis	Reference(s)
9	§ 103(a)	Levy
9	§ 103(a)	Levy and Lee
9	§ 103(a)	Mawle
9	§ 103(a)	Mawle and Lee
9	§ 103(a)	White and Lee

Dec. to Inst. 2, 5, 24.

E. The '276 Patent (Ex. 1001)

The '276 patent issued February 21, 2006, from an application filed August 20, 2003, and claims the benefit of priority from a foreign application filed August 20, 2002. Ex. 1001, code (22), code (30), code (45), 1:7–9; *see also* PO Resp. 1 (indicating the same filing date and priority claim).

The '276 patent “relates to a gaming machine where a player may play a game using tokens.” Ex. 1001, 1:20–21. Figures 2B and 3B of the '276 patent are reproduced below.

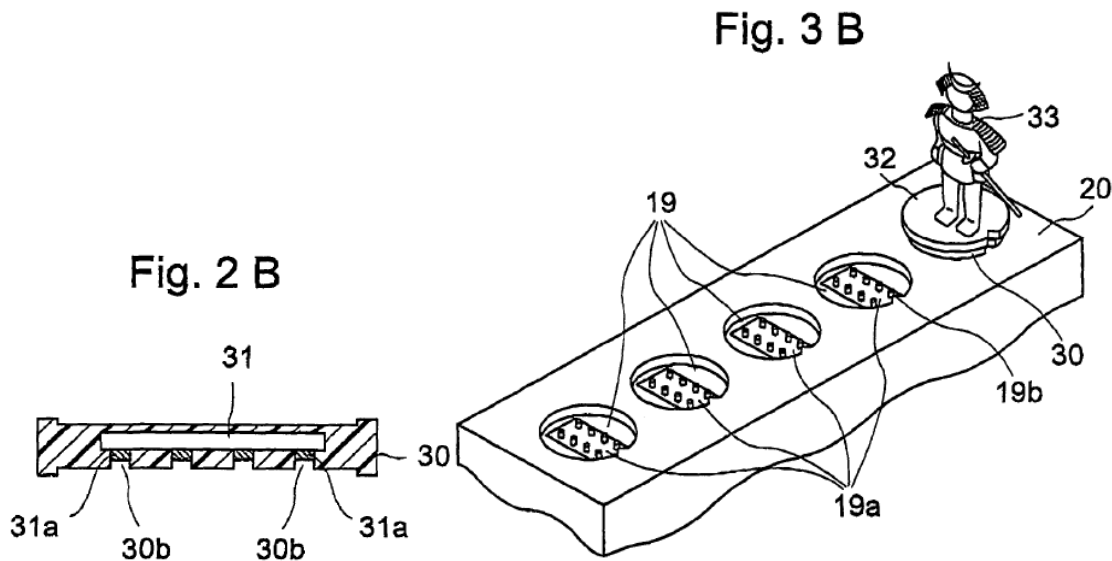


Figure 2B is a cross-sectional view of a token with a built-in integrated circuit (“IC”) chip, and Figure 3B is a perspective view of a token receiving unit of a gaming machine. *Id.* at 11:50–51, 11:55–56.

Token 30 has IC chip 31 with pins 31a. *Id.* at 13:47, 13:54–55. “It is desirable for the . . . token with built-in IC chip to be integrally configured with a design of a three-dimensional form” that “may be referred to as ‘action figure.’” *Id.* at 8:21–25. “The action figure may be configured so as to be detachable from the token.” *Id.* at 8:33–34. The token 30 can be put in

one of recesses 19 of support 20. *Id.* at 13:63–64. Figure 4B of the '276 patent is reproduced below.

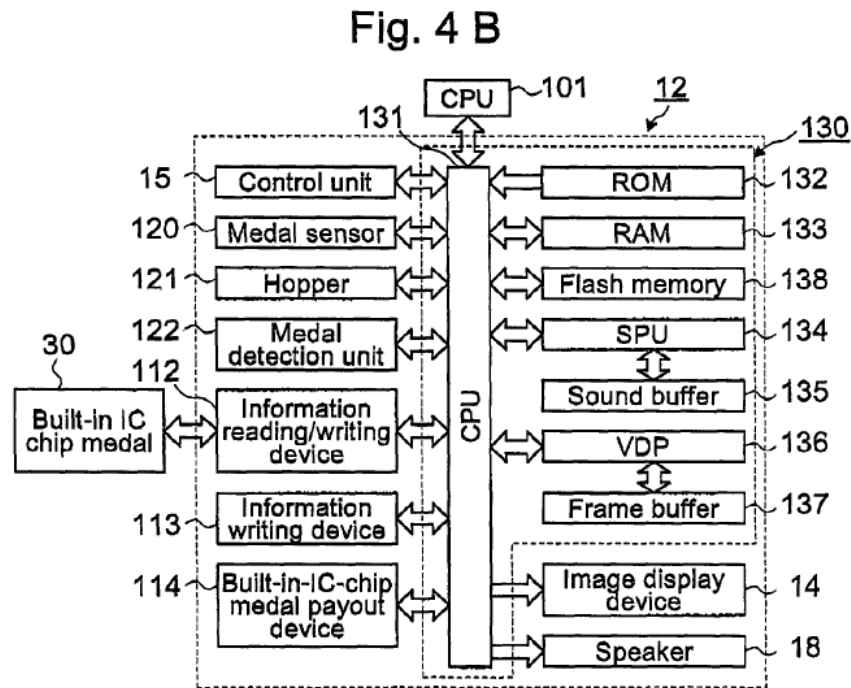


Figure 4B is a block diagram of a satellite of a gaming machine. *Id.* at 11:62–63, Fig. 1 (perspective view of satellites 12 of gaming machine 10).

Gaming machine 10 has various components including satellites 12. *Id.* at 12:20–22, 14:64–15:1. Satellite 12 includes a plurality of control buttons for a player and support 20 with recesses 19 that engage token 30. *Id.* at 12:51–53, 12:62–65, 17:46–47. Connectors 19a at the bottom of recesses 19 connect to information reading/writing device 112 inside satellite 12. *Id.* at 12:65–13:1. When token 30 is installed in one of recesses 19, information reading/writing device 112 transmits a signal. *Id.* at 20:13–17. Thereafter, both CPU 101 and CPU 131 carry out a process to read data stored in token 30 by means of information reading/writing device 112. *Id.* at 20:23–27, 20:33–38. CPU 101 also transmits game data via interface circuit 107 to, for example, a server for managing the game. *Id.*

at Fig. 4A, 20:54–58. The “gaming machine is characterized in that the gaming machine may transmit outside game initial data as well as game history data that is read out from a token with built-in IC chip.” *Id.* at 3:51–54. The gaming machine prevents using tokens that have been used in other game arcades or tokens with data that has been modified. *Id.* at 4:17–20.

F. Sole Challenged Claim

The ’276 patent has 19 claims, of which Petitioner challenges only claim 9, which is reproduced below.

9. A gaming machine utilizing a token with built-in IC chip, comprising:
 - an information reader, which reads game data from the token with built-in IC chip; and
 - a data transmitter comprising an interface circuit, which transmits the game data read by the information reading device;
 - wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess;
 - wherein the upward-facing recess is provided on a support disposed next to a display device which shows progress of a game; and
 - wherein an action figure is attached to the token with built-in IC chip in a detachable manner.

Ex. 1001, 28:10–24.

II. CHALLENGES UNDER 35 U.S.C. § 103

To prevail in its challenge under 35 U.S.C. § 103(a), Petitioner must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such

that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

For all challenges, the parties’ disputes are related to the teachings of the asserted references and the reason for combining the asserted references. The parties do not direct us to any objective evidence of nonobviousness.

After reviewing the complete record, we conclude that Petitioner has shown by a preponderance of the evidence that White and Lee teach or suggest each limitation of claim 9 and that a person of ordinary skill in the art would have had a reason to combine White and Lee with a reasonable expectation of success. For the other challenges, Petitioner does not persuade us that the other asserted references teach each limitation of claim 9.

A. Level of Ordinary Skill in the Art

The Petition does not assert a particular level of ordinary skill in the art. Petitioner’s declarant, however, opines that a person of ordinary skill in the art “would have had the equivalent of a bachelor’s degree in electrical engineering, computer science, or similar field and one to two years of experience in the design of interactive entertainment products, such as electronic toys or video games.” Ex. 1002 ¶ 12. Petitioner’s declarant also states that “[r]elevant professional or practical experience or degrees in other

subject areas where a person would gain experience of this type may also suffice to qualify a person as skilled in the art.” *Id.*

Patent Owner’s declarant opines that “a person having ordinary skill in the technical art most relevant to Claim 9 of the ’276 Patent at the time of invention most pertinent to the ’276 Patent would have at least a Bachelor’s Degree in Computer Science with courses and experience in relevant mathematics and three to five years of experience with designing and developing coin-operated electronic gaming devices with electronic displays (such as slot machines).” Ex. 2001 ¶ 19.

The parties’ declarants agree that one of ordinary skill in the art would have had at least a bachelor’s degree in computer science. Ex. 1002 ¶ 12; Ex. 2001 ¶ 19. The parties’ declarants also agree that one of ordinary skill in the art would have had experience in similar areas, particularly “the design of interactive entertainment products, such as electronic toys or video games” (Ex. 1002 ¶ 12) or in “designing and developing coin-operated electronic gaming devices with electronic displays (such as slot machines)” (Ex. 2001 ¶ 19). The parties’ declarants disagree as to the number of years of experience required. Ex. 1002 ¶ 12; Ex. 2001 ¶ 19; *see also* Tr. 67:7–18 (Petitioner’s counsel indicating that there was generally no disagreement on level of ordinary skill).

We find Patent Owner’s proposal consistent with the level of ordinary skill in the art reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). We, therefore, find that a person of ordinary skill in the art “would have at least a Bachelor’s Degree in Computer Science with courses and experience in

relevant mathematics and three to five years of experience with designing and developing coin-operated electronic gaming devices with electronic displays (such as slot machines).” Ex. 2001 ¶ 19. Any differences regarding additional experience in the parties’ competing proposals for the level of ordinary skill does not affect our analysis of Petitioner’s challenges.

B. Claim Interpretation

In the present *inter partes* review, claim terms in the ’276 patent, which is unexpired, are interpreted according to their broadest reasonable construction in light of the Specification of the ’276 patent. 37 C.F.R. § 42.100(b) (2017); *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard).¹

In the Decision to Institute, we determined that no express interpretation was required for any claim term at that stage of the proceeding. Dec. to Inst. 9.

1. “token”

Petitioner proposes interpreting “token” as a “game piece.” Pet. 13 (citing Ex. 1001, 2:19–21, 6:33–35, 6:38–40, 8:21–23, 8:30–36).

Patent Owner proposes interpreting “token” to mean “a disk-like shaped item required to begin play of a game.” PO Resp. 21. In support,

¹ On October 11, 2018, the Office revised its rules to harmonize the Board’s claim construction standard with that used in civil actions under 35 U.S.C. § 282(b) in federal district court. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018). This rule change does not apply here. See Paper 4 (according a filing date of March 9, 2018 to the Petition).

Patent Owner points to the Specification of the '276 patent (*id.* at 21–23 (citing Ex. 1001, 2:18–21, 6:62–7:1, 7:18–21, 7:47–48, 8:33–36, 13:47–48)) and declarant testimony (*id.* at 22 (citing Ex. 2001 ¶¶ 22–33)).

Patent Owner also argues that Petitioner’s interpretation of “token” is unreasonably broad, disregards the Specification, does not have any identified support, and encompasses other claim terms. *Id.* at 23–24 (citing Pet. 13; Ex. 1002 ¶¶ 38–41). Patent Owner additionally argues that Petitioner’s position that “token” is not a limitation is contrary to case law. *Id.* at 24–25.

Petitioner replies that Patent Owner’s proposed interpretation is incorrect because “the [S]pecification explicitly states that the shape of the token is *not* limited” and “if the action figure is detachable from the token, there is even *more* reason to make its shape different from an ordinary token.” Pet. Reply 7–8 (citing PO Resp. 21, 22; Ex. 1001, 7:47–53, 8:33–35, 8:44–51). Petitioner also contends that the Specification describes treating an “ordinary” token and a token with the IC chip differently so that they cannot have the same shape. *Id.* at 9–11 (citing Ex. 1001, 7:59–67, 8:45–46, 9:15–19, 12:57–61, 17:54–67, 18:23–25, Figs. 1, 4B). Petitioner additionally contends that “‘required to begin play of a game’ provides no structure whatsoever,” “is already specified in the claim,” and reads in a functional limitation with no basis. *Id.* at 11–12 (citing Ex. 1001, 28:12–13, 17–19). Petitioner further asserts that express interpretation of “token” is not required. *Id.* at 12.

Patent Owner replies that its proposed interpretation “accurately captures the disclosed invention and is based on the [S]pecification’s description of a token.” PO Sur-Reply 3–4 (citing Ex. 1001, 6:62–66).

Patent Owner argues that it is “not reading limitations from the [S]pecification into the claims,” but rather is “construing the term according to its definition and usage in the patent,” and “account[ing] for the [S]pecification’s explanation that a token is used to begin game play.” *Id.* at 4. Patent Owner contends that “there is no rule against using functional language to describe the capabilities of a structure.” *Id.*

Patent Owner also contends that Petitioner’s proposed interpretation is unreasonably broad because it can encompass other claim terms such as “action figure” and “IC chip.” *Id.* at 4–5. According to Patent Owner, Petitioner argues that Mawle’s game figure and the combination of White’s figure and IC chip satisfy “token” without regard for how “token” and “action figure” are described by the Specification and claims. *Id.* at 5 (citing Pet. 46, 55, 69). Patent Owner also argues that Petitioner’s proposed interpretation “is so broad that it eviscerates the distinction between actual claim terms,” and thus, is unreasonable. *Id.* at 6.

First turning to claim 9, it requires that a gaming machine utilize a “token with built-in IC chip,” that an information reader reads data from the token, that the token fits into a recess, and that an action figure is attached to the token in a detachable manner. It does not require “token” to be “a disk-like shaped item required to begin play of a game.” Ex. 1001, 28:10–24. Claim 9, thus, does not expressly support Patent Owner’s proposed interpretation.

Turning to the Specification, it states a “shape of the above-mentioned token with built-in IC chip is not limited” and that “the token with built-in IC chip is preferably disk-shaped.” Ex. 1001, 7:47–49. The Specification, thus, does not support Patent Owner’s proposed interpretation.

The Specification also indicates that a “token” is not the same as an “action figure.” *See, e.g., id.* at 8:21–25 (“It is desirable for the . . . token with built-in IC chip to be integrally configured with a design of a three-dimensional form . . . (it may be referred to as ‘action figure’ hereinafter.) . . .”), 8:33–34 (“The action figure may be configured so as to be detachable from the token.”). As discussed above, claim 9 requires that “an action figure is attached to the token with built-in IC chip.” Ex. 1001, 28:23–24. We, thus, agree with Patent Owner that “token” does not include an “action figure.” Thus, the term “token” cannot include within its scope an “action figure.”

To resolve the parties’ dispute regarding patentability, we need only determine that the term “token” does not include an “action figure.” *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (construing only those claim terms in controversy and only to the extent necessary to resolve the controversy); *see also Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review). Any further express interpretation is not required for our analysis. *Vivid Techs.*, 200 F.3d at 803.

2. Other Interpretation Issues and Proposed Interpretations

The parties also dispute whether “token with built-in IC chip,” “action figure,” and “wherein an action figure is attached to the token with built-in IC chip in a detachable manner” should be given patentable weight. Pet. 11–13; PO Resp. 24–25; Pet. Reply 1–6; PO Sur-Reply 2–3. The issue is relevant only to the challenges based on Levy alone or Mawle alone. We need not resolve these issues to resolve these challenges because, as

discussed below, our analysis of these challenges does not depend on whether or not these phrases have patentable weight. *Vivid Techs.*, 200 F.3d at 803.

Patent Owner also proposes interpreting “game data” (PO Resp. 25–27), “action figure” (*id.* at 27), and “attached . . . in a detachable manner” (*id.* at 27–29). We need not interpret the phrases to resolve the parties’ dispute regarding patentability. *Vivid Techs.*, 200 F.3d at 803.

C. Scope and Content of the Prior Art

1. Levy (Ex. 1003)

Levy “relates . . . to an electronic game for simulating a sport.” Ex. 1003, 1:6–8. It includes at least one “intelligent” game piece containing a re-programmable semiconductor memory device. *Id.* at 1:44–47. Figure 1 of Levy is reproduced below.

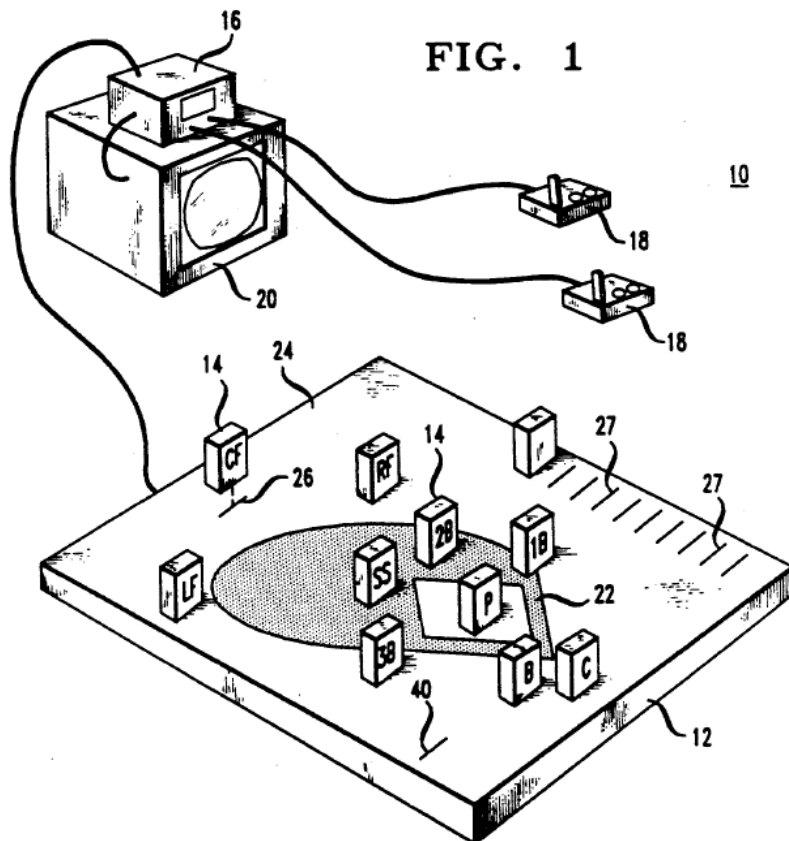


Figure 1 is a “block diagram of an electronic game.” *Id.* at 2:23–24. Game 10 includes game board 12, at least one game piece 14, and display device 20. *Id.* at 2:45–53. A processor reads each game piece. *Id.* at 2:6–7. Game piece 14 can take the form of figurine 64. *Id.* at 5:27–32, Fig. 5.

Figure 3 of Levy is reproduced below.

FIG. 3

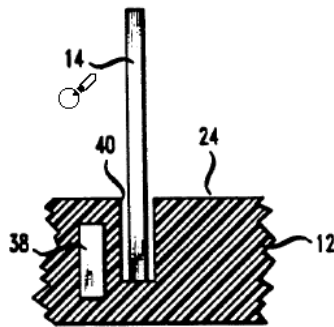


Figure 3 shows a partial cross-sectional view of a portion of game piece 14 mated with game board 12 shown in Figure 1. *Id.* at 2:27–29. “[R]eader 38 is seated in the game board 12 adjacent to a slot 40.” *Id.* at 4:20–21, Fig. 3. Reader 38 can read game piece 14 when it is placed in slot 40 so that data stored in memory can be transferred from game piece 14. *Id.* at 4:9–14, 4:24–28, 4:44–46.

2. Lee (Ex. 1004)

Lee “relates to interface devices that enable games, toys, activity centers and other amusement devices to directly interact with a personal computer.” Ex. 1004, 1:18–20. Lee can adapt transducer identification technology to identify play objects electronically. *Id.* at 6:25–36.

Figure 2 of Lee is reproduced below.

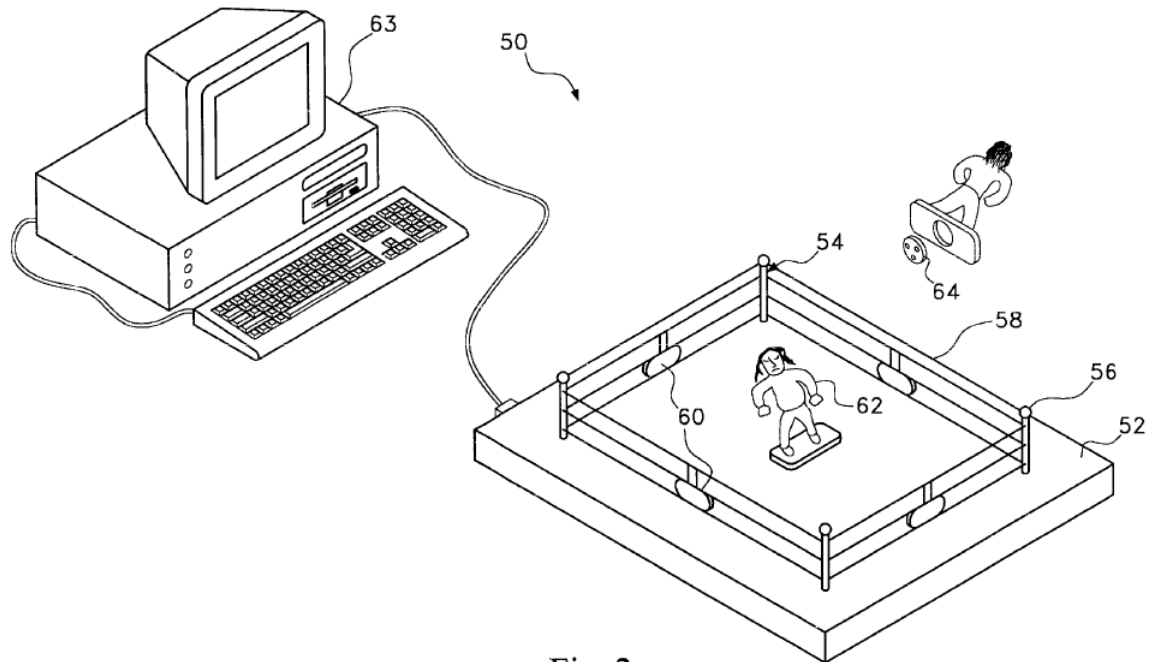


Fig. 2

Figure 2 is a perspective view of an embodiment of the computer interface device. *Id.* at 3:11–13. In the embodiment of Figure 2, “transducers 64 can be attached to a preexisting wrestling figure” so that “a child who has a collection of various action figures can use those figures.” *Id.* at 6:48–50. “If transducers 64 are added to preexisting figures, the figure associated with a particular transducer is read into the computer 63,” and thus, “computer 63 is then able to identify the figure when it is used.” *Id.* at 6:52–55. Interface assembly 50 “identifies the location and orientation of all prop objects and action objects,” which are then read to computer 63 so that computer 63 can monitor and interact with play. *Id.* at 6:57–61.

3. *Mawle (Ex. 1005)*

Mawle “relates to a toy figure that can be used with multiple, different game systems.” Ex. 1005, 1:12–13. Figures 1 and 3 of Mawle are reproduced below.

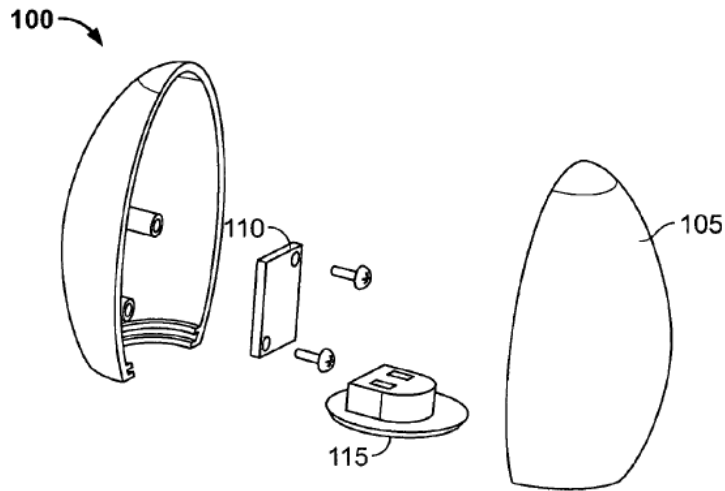


FIG. 1

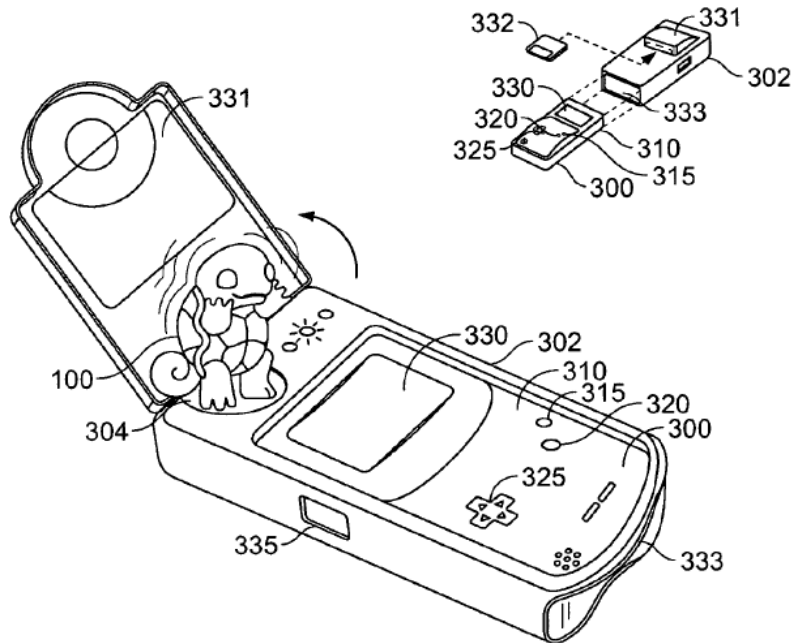


FIG. 3

Figure 1 is an exploded view of a generically-shaped toy figure, and Figure 3 is a perspective view of a game system with which the toy figure

(now having a specific shape) can be used. *Id.* at 2:60–63, 3:28–39. Toy figure 100 has three-dimensional body 105, integrated circuit 110, and connector 115 electrically connected to integrated circuit 110. *Id.* at 3:29–30, 3:32–36. Toy figure 100 can have a more complex shape and is adapted to mate with an electronic game. *Id.* at 3:37–38, 3:58–59. In Figure 3, toy figure 100 is shaped like a turtle. *Id.* at 4:16–17.

Toy figure 100 can interact with electronic game systems 200, 300, 400 through electrical connection between connector 115 and mating connectors 205, 305, 405. *Id.* at 3:61–67, 4:35–39, Figs. 2–6. Also, toy figure 100 can be adapted for play with hand-held device 300 through connector 304 or adapter 302 that mates with connector 115 and attaches to hand-held device 300. *Id.* at 4:17–19, 12:30–35. Controller 2100 of device 300 downloads information from toy figure 100 before beginning a game. *Id.* at 4:17–19, 12:40–45, Fig. 21. Device 300 includes LCD screen 330, and adapter 302 can include additional connector 355 for connecting to another game device 2000. *Id.* at 11:59–62, 11:67–12:3, 12:11–13, Fig. 20.

4. *White (Ex. 1006)*

White “relates to a data communication apparatus of the kind comprising a master unit and at least one physically separate, passive unit” and “is concerned particularly, but not exclusively, with toys and games.” Ex. 1006, 1:5–9. For example, a “game could involve a ball and goal, a slave unit incorporated in the ball and a master unit in or adjacent to the goal.” *Id.* at 6:59–61. White in particular describes “[t]wo examples of toys incorporating a data communication apparatus.” *Id.* at 3:35–36.

Figure 1 of White is reproduced below.

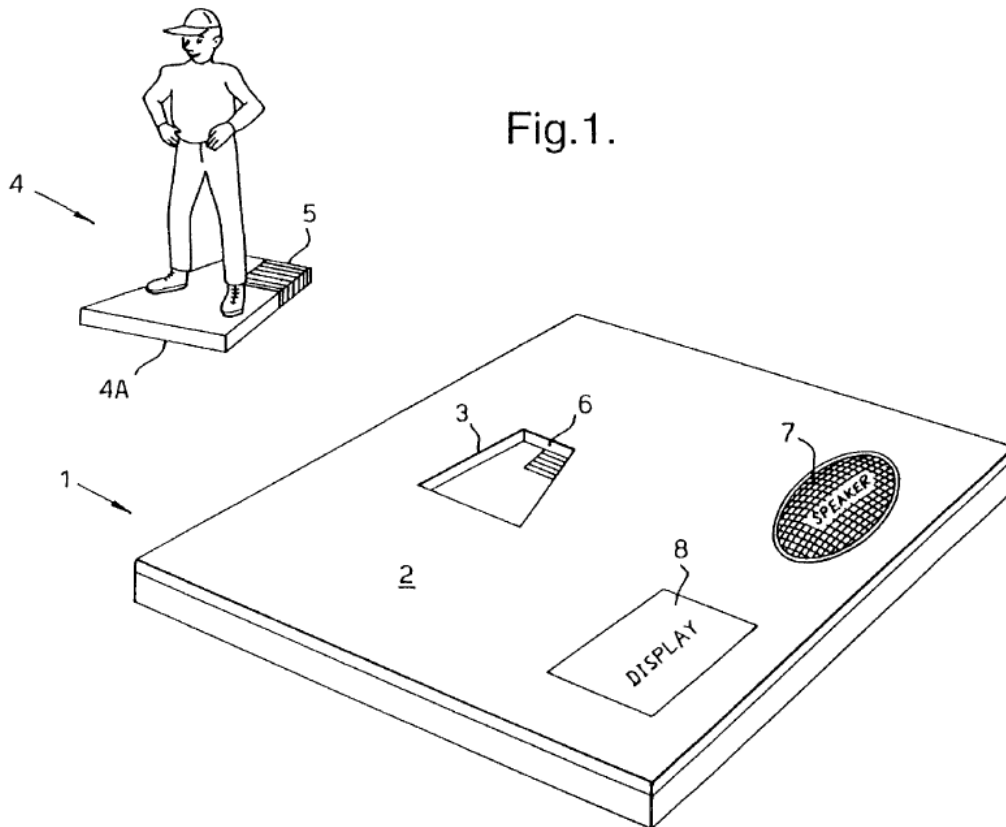


Figure 1 is a perspective view of a toy. *Id.* at 3:39–40. The toy includes base unit 1 with recessed portion 3 that receives base 4a of a piece in the form of character 4. *Id.* at 3:59–64.

Base portion 4a has tag 5 that includes information about the character. *Id.* at 4:1, 4:15–16. Tag 5 can be activated remotely, and “when activated, transmits information contained in its memory.” *Id.* at 4:3–5.

In use, character 4 is placed in recess portion 3 so that tag 5 is adjacent reader 6. *Id.* at 4:13–15. Reader 6 has microprocessor 20 that can be connected to display 8, speaker 7, mechanical actuator 22, and I/O interface 23. *Id.* at 4:27–32. Base unit 2 includes Tag reader 6 in recessed portion 3. *Id.* at 4:6–9, Fig. 2.

D. Challenge Based on Levy

Petitioner contends that claim 9 is unpatentable over Levy (Pet. 14, 19–24) and states that this challenge “is based upon a construction of claim 9 in which a token and action figure are not considered to be part of the claimed gaming machine structure.” *Id.* at 15; *see also id.* at 14 (“The grounds and analysis below are based on both a construction in which a token is not part of the claimed gaming machine and a construction in which a token is part of the claimed gaming machine.”).

Petitioner argues that Levy teaches or suggests all the limitations of claim 9, except for “wherein an action figure is attached to the token with built-in IC chip in a detachable manner.” *Id.* at 15–18 (summarizing the asserted teachings of Levy (citing Ex. 1003, 2:50–54, 3:23–29, 3:42–54, 4:9–14, 4:20–28, 6:17–28, Figs. 1–3, 6)), 20–24 (citing, in a claim chart, Ex. 1003, 1:44–50, 2:8–14, 2:45–55, 3:42–52, 4:9–14, 4:20–28, 4:44–46, 6:17–28, Figs. 1, 3, 6). In its arguments that Levy would have rendered obvious claim 9, Petitioner asserts that “Levy discloses the claimed ‘information reader’ having an upward facing recess 40 provided on a support, *i.e.*, game board 12.” *Id.* at 19.

Relevant to this challenge, in its responsive arguments for the challenge based on Levy and Lee, Patent Owner argues that Levy does not teach or suggest “an information reader . . . ‘wherein the information reader comprises an upward-facing recess’” PO Resp. 37–38 (citing Pet. 22–23, 35–36; Ex. 1003, 4:9–25, Fig. 3). In particular, Patent Owner argues that Levy expressly teaches that “reader 38 is seated in the game board 12 **adjacent to** a slot 40.” *Id.* at 38 (quoting Ex. 1003, 4:20–21) (emphasis by Patent Owner); PO Sur-Reply 12 (arguing that “[w]hile an ‘information

reader’ may comprise various components or structures, the slot in the game board of Levy cannot fairly be characterized as part of an ‘information reader’” and that slot 40 “is a feature of the disclosed game board”).

In reply to this particular argument, Petitioner argues that Patent Owner ignores game board 12, which includes both reader 38 and slot 40. Pet. Reply 21–22 (citing Pet. 20–21, 33; PO Resp. 38; Ex. 1003, 4:9–11, 4:20–21, Fig. 3). Petitioner also argues that the ’276 patent describes a similar structural arrangement. *Id.* at 22 (citing Ex. 1001, 12:62–13:1, Figs. 1, 4B).

We agree with Patent Owner that Levy teaches that “reader 38 is seated in the game board 12 adjacent to a slot 40.” Ex. 1003, 4:20–21. Petitioner relies on reader 38 for teaching the information reader of claim 9 (Pet. 20–21 (citing Ex. 1003, 4:9–14, 4:44–46, Fig. 3)) and on slot 4 for teaching the upward-facing recess of claim 9 (*id.* at 22–23 (citing Ex. 1003, 4:9–14, 4:20–23, Figs. 1, 3)).

The relied-upon portions of Levy teach (1) that “within the game board 12 is at least one card reader 38” that “includes a set of capacitive plates (not shown) for capacitively coupling with the plates 32 of FIG. 2 to permit data stored in the memory 30 of FIG. 2 to be read therefrom” (Ex. 1003, 4:9–14), (2) “the reader 38 is seated in the game board 12 *adjacent to* the slot 40, which, as seen FIG. 1, is situated on the opposite side of the baseball diamond 22 from the slots 27” (*id.* at 4:20–23) (emphasis added), (3) “[e]ach game piece 14 is ‘read’ by the reader 38 when the piece is placed in the slot 40 for a short time (e.g., a few seconds) so that data stored in the memory 30 can be transferred to the circuitry (see FIG. 5) in the console 16 of FIG. 1” (*id.* at 4:24–28), and (4) “reader 38 functions to

read the data stored in the memory device 30 of FIG. 2 of the game piece 14 of FIG. 1” (*id.* at 4:44–46). Figure 1 of Levy shows slot 40, and Figure 3 of Levy shows reader 38 adjacent to slot 40. The relied-upon portions of Levy do not teach or suggest that reader 38 comprises an upward-facing recess.

Petitioner does not direct us to declarant testimony addressing the recitation “an information reader . . . wherein the information reader comprises an upward-facing recess.” See Pet. 19–23. Petitioner’s declarant also does not provide additional evidence regarding this recitation of claim 9. See Ex. 1002 ¶¶ 44–55, 81–95. For this recitation, the Petition and declarant testimony are largely similar to each other. *Compare* Pet. 15–23, with Ex. 1002 ¶¶ 44–55, 81–95. Based on the portions of Levy quoted above, Levy does not support the testimony that “Levy discloses that the information reader has an upward-facing recess—slot 40—such that the token is fitted into the recess” in view of the earlier testimony that the “card reader constitutes the claimed ‘information reader’ that reads data from the game pieces 14.” Ex. 1002 ¶¶ 86, 89. For the recitation “wherein the upward-facing recess is provided on a support disposed next to a display device which shows progress of a game,” Petitioner’s declarant states that “Levy discloses that the *upward-facing recess is provided on a game board* coupled to a display device which shows progress of the game.” *Id.* ¶ 92 (emphasis added). Petitioner’s declarant, thus, indicates that the asserted upward-facing recess is part of game board 12.

Regarding Petitioner’s argument that, by including reader 38 and slot 40, game board 12 teaches or suggests “an information reader . . . wherein the information reader comprises an upward-facing recess,” the Petition and declarant testimony both indicate that game board 12 teaches

the recited support, not an information reader comprising an upward-facing recess. See Pet. 19 (“As set forth in the claim chart below, Levy discloses the claimed ‘information reader’ having an upward facing recess 40 provided on a support, *i.e.*, game board 12.”); Ex. 1002 ¶ 92 (“Levy discloses that the upward-facing recess is provided on a game board coupled to a display device which shows progress of the game.”). The argument that game board 12 teaches reader 38 comprising slot 40 also relies on an implicit, broader interpretation of “information reader” that neither party has proposed. Further, under our determination that “token” does not include an “action figure,” Petitioner’s arguments do not sufficiently show that a token is fitted into the upward-facing recess, as required by claim 9.

Because the record insufficiently supports Petitioner’s argument that Levy’s reader 38 and slot 40 teach or suggest “an information reader . . . wherein the information reader comprises an upward-facing recess,” Petitioner does not show by a preponderance of the evidence that claim 9 is unpatentable over Levy.

E. Challenge Based on Levy and Lee

Petitioner contends that “[i]n the event that the Board finds that, under the broadest reasonable construction, the token with built-in IC chip and action figure are part of the claimed structure of the gaming machine, the combination of Levy and Lee renders claim 9 obvious.” Pet. 24–25. In particular, Petitioner argues that either Levy, Lee, or both teach the limitations of claim 9. Pet. 31–38 (contending where Levy and Lee teach the limitations of claim 9 in a claim chart) (citing Ex. 1002 ¶¶ 100, 114–116; Ex. 1003, 1:44–50, 2:8–14, 2:45–55, 3:42–52, 4:9–14, 4:20–28, 4:44–46, 6:17–28, Figs. 1, 3, 6; Ex. 1004, 2:41–45, 6:31–36, 6:44–51, 6:57–59,

Figs. 1, 2); *see also id.* at 15–18, 25–27 (asserting what Levy teaches), 27–30 (asserting what Lee teaches).

Petitioner also argues that “[i]t would have been obvious . . . to provide the integrated circuit chip of Levy in a token that is attachable and detachable from the action figure, as done in Lee,” that Lee provides motivation for its proposed combination, and that the proposed combination is “the use of a known technique (provision of a game figure with a detachable token as in Lee) to improve a similar device (a game figure with an integral chip as in Levy) in the same way.” *Id.* at 30–31 (citing Ex. 1002 ¶¶ 107, 108, 115, 116; Ex. 1004, 6:46–51).

Patent Owner responds, *inter alia*, that Levy and Lee do not teach or suggest “an information reader . . . wherein the information reader comprises an upward-facing recess.” PO Resp. 37–38 (citing Pet. 22–23, 35–36; Ex. 1003, 4:9–25, Fig. 3). Patent Owner also argues that Lee does not cure this deficiency of Levy. *Id.* at 38–39. In reply to this particular argument, Petitioner argues that Patent Owner ignores Levy’s game board 12, which includes both reader 38 and slot 40 and that the ’276 patent describes a similar structural arrangement. Pet. Reply 21–23 (citing Pet. 20–21, 33; PO Resp. 38; Ex. 1001, 12:62–13:1, Figs. 1, 4B; Ex. 1003, 4:9–11, 4:20–21, Fig. 3).

For the reasons given above for the challenge based on Levy alone, we agree with Patent Owner that Levy does not teach or suggest the information reader comprising an upward-facing recess as required by claim 9. For this recitation, Petitioner relies on the same portions of Levy in its challenge based on the proposed combination of Levy and Lee as it does for the challenge based on Levy alone. *Compare* Pet. 20–21 (citing

Ex. 1003, 4:9–14, 4:44–46, Fig. 3), 22–23 (citing Ex. 1003, 4:9–14, 4:20–28, Figs. 1, 3), *with id.* at 33 (citing Ex. 1003, 4:9–14), 35–36 (citing Ex. 1003, 4:9–14, 4:20–28, Figs. 1, 3).

As discussed above for the challenge based on Levy alone, the relied-upon portions of Levy do not teach or suggest that reader 38 comprises an upward-facing recess. *See* Ex. 1003, 4:9–14, 4:20–28, Figs. 1, 3. Petitioner also does not rely on Lee to teach or suggest an information reader comprising an upward-facing recess. *See* Pet. 33, 35–36. Lee does not teach or suggest an information reader, as recited by claim 9. Petitioner’s proposed modification of Levy in view of Lee does not address the asserted upward-facing recess of Levy. *See id.* at 30–31.

Petitioner does not direct us to declarant testimony addressing the recitation “an information reader . . . wherein the information reader comprises an upward-facing recess.” *See* Pet. 24–38 (citing Ex. 1002 ¶¶ 60–63, 100, 107–108, 114–116 for the recited token and reasons for modifying Levy in view of Lee). For this recitation, the Petition and declarant testimony are largely similar. *Compare* Pet. 24–38, *with* Ex. 1002 ¶¶ 96–116. Based on the portions of Levy quoted above, Levy does not support the testimony that “Levy discloses that the information reader has an upward-facing recess—slot 40—such that the token is fitted into the recess” in view of the earlier testimony that “Levy discloses an information reader, as shown below in FIG. 3,” referring to reader 38. Ex. 1002 ¶¶ 101, 102, 104. For the recitation “wherein the upward-facing recess is provided on a support disposed next to a display device which shows progress of a game,” Petitioner’s declarant states that “Levy discloses that the upward-facing recess is provided on a game board coupled to a display device which shows

progress of the game” and that “Lee discloses an upward-facing recess which is provided on a play board coupled to a display device.” *Id.* ¶¶ 109, 112. Petitioner’s declarant, thus, indicates that game board 12 of Levy or the play board of Lee teaches the recited support of claim 9, not its information reader.

Regarding Petitioner’s argument that, by including reader 38 and slot 40, game board 12 teaches or suggests “an information reader . . . wherein the information reader comprises an upward-facing recess,” the Petition and declarant testimony both indicate that game board 12 teaches the recited support, not the information reader comprising an upward-facing recess. *See* Pet. 19 (“As set forth in the claim chart below, Levy discloses the claimed ‘information reader’ having an upward facing recess 40 provided on a support, *i.e.*, game board 12.”); Ex. 1002 ¶ 109 (“Levy discloses that the upward-facing recess is provided on a game board coupled to a display device which shows progress of the game.”). Neither party has proposed an interpretation of “information reader” that would include game board 12 in its scope.

Because the record insufficiently supports Petitioner’s argument that Levy and Lee teach or suggest “an information reader . . . wherein the information reader comprises an upward-facing recess,” Petitioner does not show by a preponderance of the evidence that claim 9 is unpatentable over Levy and Lee.

F. Challenge Based on Mawle

Petitioner contends that Mawle teaches all the limitations of claim 9 except for a transmitter. Pet. 44–52 (including claim chart to show where Mawle teaches the limitations of the claim); *see also id.* at 38–44 (asserting

what Mawle teaches). For the recitation “wherein an action figure is attached to the token with built-in IC chip in a detachable manner,” Petitioner states that the “action figure and token with IC chip are not part of the claimed gaming machine.” *Id.* at 52 (referring to Petitioner’s claim construction arguments at Pet. 11–14).

Petitioner argues that “it would have been obvious (if not inherent) that a transmitter would be present in view of the presence of connector 335 and connection to another game device.” *Id.* at 44 (citing Ex. 1002 ¶¶ 122–126; Ex. 1005, 12:11–18). Petitioner also argues that it would have been obvious to place a connector next to a display. *Id.* at 44–45 (citing Ex. 1002 ¶¶ 129–131).

Relevant to our analysis, for the recitation “an information reader . . . wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess,” Petitioner relies on controller 2100 for teaching the information reader (Pet. 45–47 (citing Ex. 1005, 4:14–23, 12:30–55, 13:44–58, 14:1–34, Figs. 3, 4, 21–25)) and connector 505 for teaching an upward-facing recess (*id.* at 50–51 (citing Ex. 1005, 3:62–67, 4:17–20, 4:35–52, Figs. 3, 5, 6)). *See also id.* at 39–42 (citing Ex. 1005, 4:17–20, 4:35–51, 11:67–12:3, 12:11–15, 12:30–39, Figs. 3, 5, 6, 20) (arguing how toy figure 100 of Mawle mates with a gaming machine or gaming device 300).

In its responsive arguments for the challenge based on Mawle and Lee, but also relevant to the challenge based on Mawle alone, Patent Owner argues that Mawle does not teach or suggest “an information reader . . . wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess.” PO Resp. 43–44

(citing Pet. 60; Ex. 1005, 4:35–51, Figs. 5, 6). Specifically, Patent Owner argues that Mawle does not teach or suggest that toy figure 100 fits into one of the female receptacles of mating post 505. *Id.* Patent Owner contends that Mawle teaches a mating post with openings for coupling electrical contacts. *Id.* (citing Ex. 1005, 4:35–51, Figs. 5, 6). For this particular argument, Petitioner replies that “Patent Owner argues against the physical structure of Mawle with respect to the recess” and that “Mawle clearly discloses a recess into which the toy figure with IC memory 110 is inserted (Petition at 54, 60).” Pet. Reply 23–24.

We agree with Patent Owner. According to Petitioner, toy figure 100 with built-in IC chip 110 fits into an upward-facing recess of connector 505 because contact 510 of toy figure 100 is received into an opening of connector 505. Pet. 38–40 (citing Ex. 1005, 1:12–13, 1:17–18, 1:26–27, 3:31–33, 3:58–60, 4:35–51, Figs. 1, 5, 6), 45 (citing Ex. 1005, 3:28–60), 50–51 (citing Ex. 1005, 3:62–67, 4:17–20, 4:35–52, Figs. 3, 5, 6). The relied-upon portions of Mawle describe toy figure 100 (Ex. 1005, 1:12–13, 1:17–18, 1:26–27, 3:31–33), its integrated circuit 110 (*id.* at 3:28–60), and how it mates with an electronic game system (*id.* at 3:62–67, 4:17–20, 4:35–51). Figures 1 and 3 show toy figure 100 and electronic game system 300, and Figures 5 and 6 show connector 115 of toy figure 100 and connector 505 of game system 300. *Id.* at 2:60–66, 4:35–39.

Also, for the recitation “wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess,” Petitioner does not rely on declarant testimony. See Pet. 38–40, 45, 50–51. Petitioner’s declarant testimony does not provide any additional, supporting evidence for this recitation beyond what is presented in the

Petition. *See* Ex. 1002 ¶¶ 117–132. Moreover, neither party proposes an interpretation for “wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess” such that only a part of a token fitting into a recess would satisfy the requirement.

Because the record insufficiently supports Petitioner’s argument that Mawle teaches or suggests “an information reader . . . wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess,” Petitioner does not show by a preponderance of the evidence that claim 9 is unpatentable over Mawle.

G. Challenge Based on Mawle and Lee

Petitioner contends that claim 9 is unpatentable over Mawle and Lee. Pet. 14, 52–62. Petitioner states that this ground addresses claim 9 “[i]f the Board concludes that the token with built-in IC chip is a structural claim limitation.” *Id.* at 52. Patent Owner responds that the proposed combination of Mawle and Lee does not teach certain limitations and that one of ordinary skill in the art would not have combined the references. PO Resp. 40–46, 55–57.

According to Petitioner, Mawle does not teach a memory that is detachable from its figure, but Lee teaches a detachable token with identifying information. Pet. 52; *see also id.* at 53–62 (asserting in a claim chart that Mawle alone or Mawle and Lee teach the limitations of the claim). Petitioner also argues that it would have been obvious “to provide Mawle’s integrated circuit 110 in a detachable token, in view of Lee” for the “benefit of being able to detach a token such that various action figures can be used with the token to play a game.” *Id.* at 52–53. Petitioner further argues that

Lee provides explicit motivation. *Id.* at 53 (citing Ex. 1002 ¶ 136; Ex. 1004, 6:46–51). Petitioner additionally argues that the asserted combination is the “use of a known technique (provision of a game figure with a detachable token as in Lee) to improve a similar device (a game figure with an integral chip as in Mawle) in the same way.” *Id.* (citing Ex. 1002 ¶ 136).

Patent Owner responds, *inter alia*, that Mawle does not teach an upward-facing recess into which a token or toy figure 100 would fit. PO Resp. 43. Patent Owner argues that Petitioner relies on a mating post with openings for electrical contacts but that the asserted opening is not a recess and merely allows electrical contacts to pass, not a token to fit into a recess. *Id.* at 43–44 (citing Pet. 60; Ex. 1005, 4:35–51, Figs. 5, 6). Patent Owner also argues that Lee does not teach any transducer that fits into an upward-facing recess. *Id.* at 44 (citing Ex. 1004, 6:15–61).

For the reasons given above for the challenge based on Mawle alone, we agree with Patent Owner that Mawle does not teach or suggest the information reader comprising an upward-facing recess as required by claim 9. For this recitation, Petitioner relies on the same portions of Mawle in its challenge based on combination of Mawle and Lee as it does for the challenge based on Mawle alone. *Compare* Pet. 38–40 (citing Ex. 1005, 1:12–13, 1:17–18, 1:26–27, 3:31–33, 3:58–60, 4:35–51, Figs. 1, 5, 6), 45 (citing Ex. 1005, 3:28–60, Fig. 1), 50–51 (citing Ex. 1005, 3:62–67, 4:17–20, 4:35–52, Figs. 3, 5, 6), *with id.* at 53–54 (Ex. 1005, 3:28–60, Fig. 1), 60 (citing Ex. 1005, 3:62–67, 4:17–20, 4:35–52, Figs. 5, 6).

Petitioner, however, does not sufficiently show that the opening of connector 505 teaches “an upward-facing recess such that the token with built-in IC chip is fitted into the recess.” Petitioner relies on contact 510

being received into an opening of connector 505 that aligns contact 510 with contact 520 to make an electrical connection. *See* Pet. 39–40, 50–51. The record does not show adequately that Petitioner’s asserted token, even under its proposed interpretation, toy figure 100, is “fitted into the recess.” Mawle, instead, states that “toy figure connector 115 may be a D-shaped receptacle” and that “game system connector 505 may be a D-shaped mating post made of a durable plastic material.” Ex. 1005, 4:39–42. Mawle, thus, indicates that Petitioner’s asserted token with built-in IC chip, toy figure 100, is fitted over a post. Contact 510 is not a “token with built-in IC chip,” even under Petitioner’s proposed interpretation of “token.” *See* Pet. 13. Thus, the relied-upon portions of Mawle do not teach or suggest that Petitioner’s asserted token under its proposed interpretation, toy figure 100, is “fitted into the recess.” Ex. 1005, 3:62–67, 4:17–20, 4:35–51.

Also, under our partial interpretation of “token” as not including an “action figure,” we find that Mawle does not teach or suggest a “token” that fits into the opening of connector 505, and instead Mawle teaches contact 510 fitting into an opening of connector 505. Ex. 1005, 4:35–52.

Petitioner also does not rely on Lee to teach or suggest an information reader comprising an upward-facing recess. *See* Pet. 52–57, 60. We also find that Lee does not teach or suggest an information reader, as recited by claim 9. Further, Petitioner’s proposed modification of Mawle in view of Lee does not address the upward-facing recess of claim 9 so as to address the deficiency of Mawle discussed above. *See id.* at 52–53.

Because the record insufficiently supports Petitioner’s argument that Mawle teaches or suggests “an information reader . . . wherein the information reader comprises an upward-facing recess such that the token

with built-in IC chip is fitted into the recess,” Petitioner does not show by a preponderance of the evidence that claim 9 is unpatentable over Mawle and Lee.

H. Challenge Based on White and Lee

Petitioner contends that claim 9 is unpatentable over White and Lee. Pet. 14, 65–71. Patent Owner responds that the proposed combination of White and Lee does not teach certain limitations and that one of ordinary skill in the art would not have combined the references. PO Resp. 46–52, 55–57.

1. *“A gaming machine utilizing a token with built-in IC chip”*

Petitioner contends White teaches “a gaming machine utilizing a game piece with built-in IC chip.” Pet. 66–67 (citing Ex. 1006, 1:5–9, 4:1–5, Fig. 1); *see also id.* at 62–65 (asserting what White teaches).

We find that the relied-upon portions of White teach “a data communication apparatus of the kind comprising a master unit and at least one physically separate, passive slave unit” (Ex. 1006, 1:5–7), that White “is concerned particularly, but not exclusively, with toys and games” (*id.* at 1:7–9),” that “[i]nside the base portion 4a of character 4 is a Tag 5 including a slave unit defined by an electronic circuit” (*id.* at 4:1–2), and that “Tag 5 . . . when activated, transmits information contained in its memory” (*id.* at 4:3–5). We also find that Figure 1 shows “a first example of the toy.” *Id.* at 3:39–40.

Because White is “concerned particularly . . . with . . . games,” we find that one of ordinary skill in the art would have understood that its teachings are not limited to the example toy of Figure 1 and would have understood that White’s teachings extended to games. *See, e.g.,* Ex. 1006,

3:35–36 (describing “[t]wo examples of toys incorporating a data communication apparatus”), 6:59–61 (stating that “[i]n a further application, the game could involve a ball and goal, a slave unit incorporated in the ball and a master unit in or adjacent to the goal”).

Also, the teachings of White related to tag 5 in base portion 4a of character 4 used in the toy of Figure 1 support Petitioner’s argument that character 4 teaches a “game piece with built-in IC chip.”

Thus, we determine that White teaches or suggests a gaming machine that uses character 4 with base portion 4a having tag 5 that can transmit information contained in its memory.

2. *“an information reader, which reads game data from the token with built-in IC chip”*

Petitioner contends that White teaches “an information reader in FIG. 2 that reads game data from the IC chip.” Pet. 68–69 (citing Ex. 1006, 4:6–9, 4:15–19, Fig. 2); *see also id.* at 62–65 (asserting what White teaches). Petitioner also contends that Lee teaches “a token with a transducer.” *Id.* at 67–68 (citing Ex. 1002 ¶ 142; Ex. 1004, 6:31–36, 6:44–51, Fig. 2).

We find that the relied-upon portions of White teach that “[m]ounted inside the base unit 2 is a master unit” (Ex. 1006, 4:6), that the “master unit includes a Tag reader, part of which is shown at 6 in one corner of the recessed portion 3” (*id.* at 4:7–9), that “Tag 5 contains information about the character” (*id.* at 4:15–16), and that, in use, tag 5 will be “adjacent the part 6 of the reader 6” so that “information is then displayed visually on display 8 and/or speech is transmitted through speaker 7” (*id.* at 4:15–19).

Patent Owner responds that character 4 or tag 5 of White is not “a disk-like shaped item required to begin play of a game,” and Petitioner does

not argue that White's character 4 or tag 5 would be viewed as a token. PO Resp. 47–48 (citing Pet. 62–71). This argument, however, is based on an interpretation of “token” that, for the reasons stated above, we do not accept.

Patent Owner also argues that Petitioner's assertion that it would have been obvious to provide White's integrated circuit chip in a detachable token acknowledges that White's character is not a token and that White's integrated circuit is not a token. PO Resp. 48 (citing Pet. 65). We understand Petitioner to be proposing to modify White so that its tag 5 would be attachable to its character 4 in the same way Lee's transducer 64 is attached to its figure, so that the proposed modification would result in a “token with built-in IC chip.”

Patent Owner further argues that character 4 and tag 5 are not required to begin play of a game because Petitioner relies on a toy, not a game. PO Resp. 48 (citing Ex. 1006, 3:59). Patent Owner asserts that White does not teach that any information stored on the tag of its character is required for commencing a game. *Id.* at 51. According to Patent Owner, White does not teach any game, does not teach how any data is used with a game, and does not explain how the information stored in character 4 might be used to play a game. *Id.* (citing Ex. 1006, 6:29–45). Patent Owner, thus, contends that White does not teach “game data” or “an information reader, which reads game data from the token with built-in IC chip.” *Id.* at 51–52.

As discussed above, we determine that one of ordinary skill in the art would have understood that White's teachings are not limited to the example toy of Figure 1 and would have understood that White's teachings extended to games. *See* Ex. 1002 ¶ 138; Ex. 1006, 3:35–36, 6:59–61. Therefore, in a

game suggested by White, its tag 5 would contain information about the character 4 usable in a game. *See* Ex. 1006, 4:15–19.

Based on the full record, a preponderance of the evidence persuades us that White teaches or suggests “an information reader, which reads game data from” tag 5 of character 4 of White.

Turning to Lee, we find that the relied-upon portions of Lee teach that the “technology for use of transducers in game pieces that enable the game piece to be identified electronically has been embodied into multiple electronic chess games, produced by different manufacturers” (Ex. 1004, 6:31–35), that “[a]ny such transducer identification technology can be adapted for use by the present invention” (*id.* at 6:35–36), and that, in the embodiment shown in Figure 2, “transducer 64 can be attached to a preexisting wrestling figure” so that “a child who has a collection of various action figures can use those figures as part of the activity center” (*id.* at 6:44–51). Figure 2 shows transducer 64 near a recessed portion in the base of a figure. *See id.* at Fig. 2.

Patent Owner responds that neither character 4 of White nor transducer 64 of Lee teaches a “token with built-in IC chip.” PO Resp. 46 (citing Pet. 53–61); *see also* PO Sur-Reply 19 (arguing that Lee does not teach or suggest a token with built-in IC chip with an action figure attached in a detachable manner). Patent Owner argues that Lee’s transducer is not a “token” under either party’s proposed interpretation for the term. PO Resp. 47 (citing Pet. 67, 70; Ex. 1004, 6:25–61).

Patent Owner also argues that, even if Lee’s transducer were viewed as a “token,” it does not include a “built-in IC chip.” *Id.* Patent Owner contends that Lee does not describe the components of any transducer and

Petitioner's unsupported declarant testimony does not change the fact that Lee does not teach a transducer or token with built-in IC chip. *Id.* (citing Ex. 1004, 6:25–56).

Further, Patent Owner contends that Lee merely teaches “a transducer that is used to determine the location and orientation of a play figure on an interface” but does not teach that the transducer stores “game data” or that an information reader reads any information from the transducer. *Id.* at 52 (citing Ex. 1004, 6:25–61).

As discussed below in connection with the asserted reason to combine the references, we understand Petitioner to be proposing to modify tag 5 of White to be detachable from character 4 in a manner similar to Lee's transducer 64. *See* Pet. 65–66; Dec. to Inst. 23. Based on our understanding of Petitioner's proposed modification—that we explained in our Decision to Institute—Petitioner does not rely on Lee expressly teaching that its transducer 64 is a token, that its transducer 64 includes a “built-in IC chip,” or that its transducer stores game data. *See* Dec. to Inst. 23; Pet. 65–66; Pet. Reply 24. We determine that Petitioner's relied-upon portions of Lee would have suggested to one of ordinary skill in the art that tag 5 of White could be attached to character 4 in the same manner that transducer 64 of Lee is attached to its wrestling figure.

Based on the full record, a preponderance of the evidence persuades us that Lee would have suggested attaching an IC chip to an action figure. Based on our findings from White and Lee along with our determinations regarding the reason to combine, we determine that White and Lee teach or suggest “an information reader, which reads game data from the token with built-in IC chip.”

3. *“a data transmitter comprising an interface circuit, which transmits the game data read by the information reading device”*

Petitioner contends that White teaches “a data transmitter comprising an interface circuit, which transmits the game data read by the information reading device.” Pet. 69 (citing Ex. 1006, 4:15–19, 4:29–32); *see also id.* at 62–65 (asserting what White teaches).

We find that the relied-upon portions of White teach that “Tag 5 contains information about the character” (Ex. 1006, 4:15–16) and that, in use, tag 5 will be “adjacent the part 6 of the reader 6” so that “information is then displayed visually on display 8 and/or speech is transmitted through speaker 7” (*id.* at 4:15–19). We also find that White teaches that “microprocessor 20 is connected to the display 8 and the speaker 7 and, although not shown in FIG. 1, may also be connected to a mechanical actuator 22 and an I/O interface 23 for connection to a remote computer (not shown).” *Id.* at 4:29–32. For the challenge based on White and Lee, Patent Owner does not present arguments specifically for this limitation. *See generally* PO Resp.

Because White teaches that information from tag 5 can be displayed on display 8 or transmitted through speaker 7 and can be further communicated to a remote computer via I/O interface 23, we determine that White teaches “a data transmitter comprising an interface circuit, which transmits the game data read by the information reading device.”

4. *“wherein the information reader comprises an upward-facing recess such that the token with built-in IC chip is fitted into the recess”*

Petitioner contends that White teaches “an upward-facing recess such that the figure with built-in IC chip is fitted into the recess.” Pet. 69–70 (citing Ex. 1006, 3:59–64, Fig. 1); *see also id.* at 62–65 (asserting what White teaches).

The relied-upon portions of White teach “base unit 1 in the form of a rectangular housing,” and that “[o]n the upper surface 2 is a recessed portion 3 trapezoidal in shape to receive a corresponding trapezoidal base 4a of a piece in the form of a character 4.” Ex. 1006, 3:59–64.

Patent Owner responds that White teaches a recessed portion shaped to fit the base of character 4 but does not teach a recess in which a token is fitted. PO Resp. 49 (citing Pet. 69). Patent Owner argues that claim 9 requires an upward-facing recess in which a token fits, not a recess that fits a figure. *Id.* Patent Owner also argues that claim 9 requires a separate token and figure. *Id.* at 49–50. Patent Owner further argues that Lee does not teach any transducer that fits into an upward-facing recess and does not teach any information reader in its game board. *Id.* at 50 (citing Ex. 1004, 6:15–61).

Because we understand Petitioner is proposing to modify White so that tag 5 is detachable and results in a “token with built-in IC chip,” the modified White character 4 would have base 4a with detachable tag 5 received in recessed portion 3. *See* Pet. 65–66; Dec. to Inst. 23; Pet. Reply 24. Thus, we determine that White as modified by Lee teaches or suggests an “information reader compris[ing] an upward-facing recess such that the token with built-in IC chip is fitted into the recess.”

5. “wherein the upward-facing recess is provided on a support disposed next to a display device which shows progress of a game”

Petitioner contends White teaches that “the upward-facing recess is provided on a support disposed next to a display device 8, which shows progress of the game by displaying information about the character.” Pet. 70 (citing Ex. 1006, 4:15–19, 6:20–41, Fig. 1); *see also id.* at 62–65 (asserting what White teaches).

Patent Owner responds that White does not teach any game and does not teach any display device that shows progress of a game. PO Resp. 50 (addressing Pet. 70; Ex. 1006, 4:15–9). Patent Owner, thus, argues that White and Lee do not teach that an “upward facing recess is provided on a support device next to a display device which shows progress of a game.” *Id.* at 50–51.

Petitioner replies that “White is directed to ‘toys and games’ and information is displayed on display 8.” Pet. Reply 24 (citing Pet. 66, 70). Petitioner also argues that the “simplest game is merely one of placing characters in the recess, which causes display of information about each character” and the “game progresses and the display changes as each new character is placed.” *Id.* Patent Owner replies that White and Lee fail to teach or suggest the upward-facing recess and display of claim 9. PO Sur-Reply 19–20 (referencing PO Resp. 46–52).

As discussed above, we determine that White teaches or suggests an upward-facing recess. The portions of White relied upon by Petitioner for an upward-facing recess that “is provided on a support disposed next to a display device which shows progress of a game” teach that, in use, tag 5 will be “adjacent the part 6 of the reader 6” so that “information is then displayed

visually on display 8 and/or speech is transmitted through speaker 7.”

Ex. 1006, 4:15–19. They also teach that microprocessor 20 carries out a stored program, generates an audio message, and creates “suitable control signals . . . which are then applied to the display 8 which typically comprises a monitor.” *Id.* at 6:20–41. These teachings, taken together with the fact that White also relates to games, persuade us that White would have suggested to one of ordinary skill in the art that display 8 can show progress of a game.

Thus, based on the full record, a preponderance of the evidence persuades us that White teaches or suggests an “upward-facing recess is provided on a support disposed next to a display device which shows progress of a game.”

6. *“wherein an action figure is attached to the token with built-in IC chip in a detachable manner”*

Petitioner contends that Lee teaches a “token with built-in IC chip is attachable to and detachable from a figure.” Pet. 70–71 (citing Ex. 1002 ¶¶ 149–150; Ex. 1004, 6:44–51, Fig. 2).

We find that the relied-upon portions of Lee teach that, in the embodiment shown in Figure 2, “transducer 64 can be attached to a preexisting wrestling figure” so that “a child who has a collection of various action figures can use those figures as part of the activity center.” Ex. 1004, 6:44–51. Figure 2 shows transducer 64 near a recessed portion in the base of a figure. *Id.* at Fig. 2.

Patent Owner responds that Petitioner relies only on Lee for teaching an action figure “attached to the token with built-in IC chip in a detachable manner,” but that Lee does not teach a token. PO Resp. 48 (citing Pet. 70–

71). As discussed above, we understand Petitioner to be proposing to modify tag 5 of White to be detachable from character 4 in a manner similar to Lee's transducer 64 so as to result in a "token with built-in IC chip." See Pet. 65–66.

Patent Owner also argues that Lee does not teach any component attached to an action figure in a detachable manner. PO Resp. 48–49; see *also* PO Sur-Reply 19 (asserting same argument). We agree that Lee does not teach explicitly that transducer 64 is attached to its figure in a detachable manner; however, Lee suggests such an attachment "so the token can be used with preexisting figures." Pet. 66. Petitioner's declarant also testifies that Lee's transducer is attachable and detachable or "it would have been obvious to make it such, as it would have been attached by friction in the space indicated, or by some sort of adhesive that would not need to be permanent." Ex. 1002 ¶ 63; see *also* Pet. 65–66 (arguing that it would have been obvious "to provide the integrated circuit chip of White in a token that is attachable to and detachable from the action figure in view of Lee" so that "various action figures can be used with it"). We credit that testimony because the full record indicates that forming an attachment that is detachable is within the level of ordinary skill in the art. We, thus, determine that one of ordinary skill in the art would have made the proposed modification "so the token can be used with preexisting figures."

Even under Patent Owner's proposed interpretation of "attached . . . in a detachable manner" to mean "configured to be non-permanently connected to and readily separated from" (PO Resp. 27–28), we would determine that White as modified by Lee would have resulted in an attachment that is "configured to be non-permanently connected to and readily separated from"

because Petitioner’s declarant states it could have been formed by “some sort of adhesive that would not need to be permanent” (Ex. 1002 ¶ 63).

Thus, based on the full record, a preponderance of the evidence persuades us that White and Lee teach or suggest “an action figure [that] is attached to the token with built-in IC chip in a detachable manner.”

7. Reason to Combine White and Lee

Petitioner contends that it would have been obvious “to provide the integrated circuit chip of White in a token that is attachable to and detachable from the action figure in view of Lee” so that “various action figures can be used with it.” Pet. 65–66 (citing Ex. 1002 ¶ 150). Petitioner also contends that Lee provides explicit motivation for the combination and the proposed combination represents “the use of a known technique (provision of a game figure with a detachable token as in Lee) to improve a similar device (a game figure with an integral chip as in White) in the same way.” *Id.* at 66 (citing Ex. 1002 ¶ 150; Ex. 1004, 6:46–51).

Patent Owner responds that Petitioner’s reason for its proposed combination “is based on an incorrect premise—namely, that “‘provision of a game figure with a detachable token’ was a ‘known technique.’” PO Resp. 56 (citing Pet. 31, 53, 66). According to Patent Owner, there is insufficient evidence that providing a game figure with a detachable token was a known technique because Lee teaches only a transducer. *Id.* Patent Owner also argues that Petitioner has not explained sufficiently how its proposed combinations would work, and thus, one of ordinary skill in the art “would not have had a reason to combine the disparate disclosure of the various references in the manner claimed by the Challenged Claim[.]” *Id.* at 56–57.

Petitioner replies that it provides a “motivation to combine Levy, Mawle, or White, with Lee to obtain the benefit of providing identification information separate from an action figure.” Pet. Reply 25 (citing Pet. 30–31, 52–53, 65–66; PO Resp. 55–57). Petitioner also argues that requiring an explanation as to how its proposed combination would work is “a variation of Patent Owner’s improper approach of requiring a physical combination of the references.” *Id.* Patent Owner replies that Petitioner does not address its argument that there is no factual support for the asserted known technique. PO Sur-Reply 16.

As discussed above, we find that Lee teaches that, in the embodiment shown in its Figure 2, “transducer 64 can be attached to a preexisting wrestling figure” so that “a child who has a collection of various action figures can use those figures as part of the activity center.” Ex. 1006, 6:44–51. Lee, thus, supports Petitioner’s declarant testimony that one of ordinary skill in the art would have modified White so that its tag 5 is detachable in the same manner as Lee so that “various action figures can be used with the token.” Ex. 1002 ¶ 150 (citing Ex. 1006, 6:46–51). We also find that modifying White as proposed by Petitioner is within ordinary skill. *See, e.g.*, Ex. 1002 ¶ 63. Thus, Petitioner demonstrates that one of ordinary skill in the art would have had a reasonable expectation of success in making the proposed modification.

For the reasons above, we determine that Petitioner shows by a preponderance of the evidence that one of ordinary skill in the art would have modified White in view of Lee to arrive at the subject matter of claim 9.

I. Objective Evidence of Nonobviousness

The parties do not direct us to any objective evidence of nonobviousness. *See generally* Pet.; PO Resp.; Tr. 72:19–22 (Patent Owner’s counsel stating it did not submit objective evidence of non-obviousness).

J. Weighing the Graham Factors

“Once all relevant facts are found, the ultimate legal determination [of obviousness] involves weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.”

Arctic Cat Inc. v. Bombardier Recreational Prods. Inc., 876 F.3d 1350, 1361 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

Above, based on full record before us, we provide our factual findings regarding (1) the level of ordinary skill in the art, (2) the scope and content of the prior art, (3) any differences between the claimed subject matter and the prior art, and (4) objective evidence of nonobviousness.

In particular, we find that (1) Patent Owner’s proposed level of ordinary skill in the art is consistent with the prior art of record, (2) White and Lee teach all the limitations of claim 9, (3) one of ordinary skill in the art would have had a reason to modify White in view of Lee with a reasonable expectation of success, and (4) there is no objective evidence of nonobviousness in the record. Weighing these underlying factual determinations, a preponderance of the evidence persuades us that claim 9 of the ’276 patent is unpatentable over White and Lee.

III. CONCLUSION²

In summary:

Reference(s)	Basis	Claim	Claim Shown Unpatentable	Claim Not Shown Unpatentable
Levy	§ 103(a)	9		9
Levy and Lee	§ 103(a)	9		9
Mawle	§ 103(a)	9		9
Mawle and Lee	§ 103(a)	9		9
White and Lee	§ 103(a)	9	9	
Overall Outcome			9	

IV. ORDER

Accordingly, it is:

ORDERED that claim 9 of U.S. Patent No. 7,001,276 B2 has been shown, by a preponderance of the evidence, to be unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

² Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

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