

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Prime Time Toys LLC, Prime Time Toys Ltd.
and Easebon Services Ltd.,
Petitioners,

v.

Spin Master, Inc.,
Patent Owner.

Case IPR2023-01348

PATENT NO. 8,371,282

PETITIONERS' NOTICE OF APPEAL

Pursuant to 35 U.S.C. §§ 141(c), 142, and 319, and 37 C.F.R §§ 90.2(a) and 90.3(a), Petitioners hereby appeal to the United States Court of Appeals for the Federal Circuit from the Patent Trial and Appeal Board's Final Written Decision entered on October 10, 2025, in IPR2023-01348 (Paper 47) concerning U.S. Patent No. 8,371,282 ("the '282 Patent"), and from all underlying findings, determinations, orders, decisions, rulings, and opinions that are adverse to Petitioners. A copy of the Final Written Decision is attached to this Notice.

In accordance with 37 C.F.R § 90.2(a)(3)(ii), Petitioners further indicate that the issues on appeal include, but are not limited to: the Board's determination that Petitioners did not show by a preponderance of the evidence that any one of the challenged, non-disclaimed claims of the '282 Patent (claims 2, 3, 5-15, 17, and 19-21) is unpatentable; any findings or conclusions by the Board supporting or related to the determination; and all other issues decided adversely to Petitioners including, without limitation, the Board's interpretation of the prior art, the Board's consideration of expert evidence and testimony, and the Board's application of the law.

The Board issued its Final Written Decision on October 10, 2025. This Notice of Appeal is therefore timely filed within sixty-three (63) days of the Board's decision, as prescribed by 35 U.S.C. § 142 and 37 C.F.R. § 90.3(a)(1).

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice of Appeal is being filed with the Director of the United States Patent and Trademark Office, the Patent Trial and Appeal Board, and the Clerk's Office of the United States Court of Appeals for the Federal Circuit. Pursuant to Fed. Cir. R. 15(a), Federal Circuit Form 5 and the required docketing fee are also being filed with the Clerk's Office of the Federal Circuit.

Petitioners do not believe that any fees are due to the United States Patent and Trademark Office with this Notice of Appeal. However, if any such fees are due, the Director is authorized to charge the fees to Deposit Account No. 01-1785.

Respectfully submitted,

AMSTER, ROTHSTEIN & EBENSTEIN
LLP
Attorneys for Petitioners
405 Lexington Avenue
New York, NY 10174
(212) 336-8090

Dated: December 9, 2025
New York, New York

By: /Kenneth P. George/
Kenneth P. George
Registration No.: 30,259

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I hereby certify that on this 9th day of December, 2025, a true copy of the foregoing PETITIONERS' NOTICE OF APPEAL was served via email on the Patent Owner at the following correspondence address of record.

Kenneth W. Darby
Jeffrey Shneidman
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402

Jennifer C. Bailey
ERISE, IP, P.A.
7015 College Boulevard, Suite 700
Overland Park, Kansas 66212

Email:
IPR50745-0003IP1@fr.com
PTABInbound@fr.com
Jennifer.bailey@eriseip.com
PTAB@eriseip.com

Pursuant to 37 C.F.R. § 90.2(a)(1), I hereby certify that on this 9th day of December, 2025, in addition to being filed electronically with the P-TACTS System of the Patent Trial and Appeal Board, a true copy of the foregoing PETITIONERS' NOTICE OF APPEAL is being provided to the Director of the

United States Patent and Trademark Office by sending it to the following email address.

efileSO@uspto.gov

Office of the General Counsel
United States Patent and Trademark Office
Madison Building East, Room 10B20
600 Dulany Street, Alexandria, VA 22314

Pursuant to Fed. Cir. R. 15(a)(1), I hereby certify that on this 9th day of December, 2025, a true copy of the foregoing PETITIONERS' NOTICE OF APPEAL is being electronically filed with the Clerk's Office of the United States Court of Appeals for the Federal Circuit via CM/ECF with Federal Circuit Form 5 and the required fee.

United States Court of Appeals for the Federal Circuit
717 Madison Place, N.W.
Washington, DC 20439

Dated: December 9, 2025
New York, New York

By: /Kenneth P. George/
Kenneth P. George
Registration No.: 30,259
AMSTER, ROTHSTEIN &
EBENSTEIN LLP
405 Lexington Avenue
New York, NY 10174
(212) 336-8090

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PRIME TIME TOYS LLC, PRIME TIME TOYS LTD., and
EASEBON SERVICES LTD,
Petitioner,

v.

SPIN MASTER, INC.,
Patent Owner.

IPR2023-01348
Patent 8,371,282 B2

Before HYUN J. JUNG, NEIL T. POWELL, and BRENT M. DOUGAL,
Administrative Patent Judges.

POWELL, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. BACKGROUND

Prime Time Toys LLC, Prime Time Toys Ltd., and Easebon Services Ltd. (collectively, “Petitioner”) filed a Petition for *inter partes* review of claims 1–15, 17, and 19–21 of U.S. Patent No. 8,371,282 B2 (Ex. 1001, “the ’282 patent”). Paper 2 (“Pet.”). Spin Master, Inc. (“Patent Owner”) filed a Preliminary Response.¹ Paper 6 (“Prelim. Resp.”). With Board authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 7), and Patent Owner filed a Preliminary Sur-reply (Paper 8).

After the Petition was filed, Patent Owner disclaimed independent claim 1 and dependent claim 4 of the ’282 patent. Prelim. Resp. 26; Ex. 2013. Accordingly, we need not reach Petitioner’s challenges to claims 1 and 4. *E.g.*, 37 C.F.R. § 42.107(e). Thus, the remaining challenged claims are claims 2, 3, 5–15, 17, and 19–21.

On August 15, 2024, we instituted an *inter partes* review. Paper 14. During trial, Patent Owner filed a Response to the Petition (Papers 19, 20²

¹ In Patent Owner’s Mandatory Notices, it is averred that “Hasbro, Inc. and Spin Master, Inc. are the real parties-in-interest.” Paper 4, 2. It is also explained that “Spin Master and Hasbro agree that Hasbro will actively control the defense of the ’282 Patent in this proceeding. Accordingly, Hasbro will submit all filings, make all arguments, and take all discovery.” *Id.*

² Paper 19 is a confidential version, and Paper 20 is a public, redacted version. Within this Decision, we cite to the public, redacted version, as we do not rely on any of the confidential information under seal.

“PO Resp.”), Petitioner filed a Reply (Papers 24, 25³ “Reply”), and Patent Owner filed a Sur-reply (Paper 33, “Sur-reply”).

We held an oral hearing in this proceeding on May 16, 2025 and a copy of the transcript is entered into the record.⁴ Paper 42 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6 (2024). This Decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of the claims on which we instituted trial. Petitioner has the burden of proving unpatentability of a claim by a preponderance of the evidence. 35 U.S.C. § 316(e).

Based on the complete record, Petitioner has not shown, by a preponderance of the evidence, that any of claims 2, 3, 5–15, 17, and 19–21 of the ’282 patent are unpatentable.

B. RELATED PROCEEDINGS

The ’282 patent is involved in an ITC matter: *In the Matter of Certain Soft Projectile Launching Devices, Components Thereof, Ammunition, and Products Containing Same*, Investigation No. 337-TA-1325 (“ITC proceeding”). Pet. 7; Paper 4, 2; Prelim. Resp. 2–7. The ’282 patent was also involved in *Gel Blaster, Inc. v. Hasbro, Inc.*, Case No. 1:22-cv-00828 (W.D. Tex.), which was dismissed with prejudice. Pet. 8; Paper 4, 2; Prelim. Resp. 8. The ’282 patent was also the subject of IPR2023-00301 and IPR2023-00772; both of which were resolved by settlement. *Id.* The parties

³ Paper 24 is a confidential version, and Paper 25 is a public, redacted version. Within this Decision, we cite to the public, redacted version, as we do not rely on any of the confidential information under seal.

⁴ The hearing was a combined oral hearing with IPR2023-01339 and IPR2023-01461.

also note that the '282 patent is related to certain other U.S. patents that were challenged in IPR2023-00302 (terminated), IPR2023-00772 (terminated), and IPR2023-01461 (pending). Pet. 8; Paper 4, 2–3.

C. THE '282 PATENT

The '282 patent “relates to soft-projectile launching devices, such as projectile toys.” Ex. 1001, 1:5–6. More specifically, the '282 patent “discloses and teaches projectile launching devices, such as toys, amateur guns and weaponry that use projectiles formed from a super absorbent polymer (SAP).” *Id.* at 3:45–48. The '282 patent explains that SAPs can absorb large quantities of liquid, such as water, and swell. *Id.* at 3:41–42, 3:65–4:6. According to the '282 patent, hydrated SAP projectiles provide several benefits over other types of projectiles. *Id.* at 3:49–61. For example, “[t]he ability of SAP projectiles to maintain their shape allows them to be projected with a reasonable force and velocity” (*id.* at 3:54–56), whereas

light, foam-based projectiles “rapidly slow after initial firing and easily curve off line” (*id.* at 1:54–55).

The '282 patent discloses an exemplary combination of a projectile launching device and SAP projectiles in connection with Figure 1, which is reproduced below.

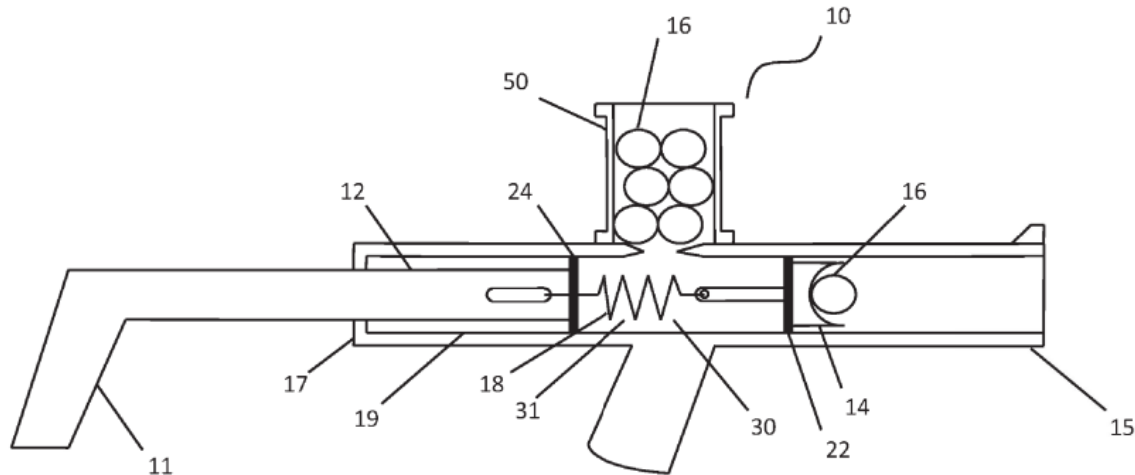


FIG. 1

“[Figure] 1 illustrates a cross section of one embodiment of a projectile launching toy designed for use with a plurality of projectiles made from a super absorbent polymer.” *Id.* at 3:17–19.

Specifically, Figure 1 shows projection device 10 with soft-projectile 16 made of a super-absorbent polymer. *Id.* at 4:60–64. In the embodiment of Figure 1, projection device 10 has “the general form of a gun.” *Id.* at 4:64–65.

Projection device 10 includes barrel 15 and soft-projectile holder 14. *Id.* at 5:50–56. Soft-projectile holder 14 is retained inside barrel 15.

Id. at 5:54–55. Soft-projectile holder 14 carries soft-projectile 16.

Id. at 5:65–66.

Projection device 10 also includes plunger cylinder 19 and plunger 12.

Id. at 5:38–39. Spring 18 is connected to plunger 12. *Id.* at 5:37–39.

Spring 18 retains soft-projectile holder 14 in barrel 15. *Id.* at 5:54–59.

A user starts the firing process by drawing handle 11 back, thereby pulling plunger 12 from plunger cylinder 19's aft end 17. *Id.* at 5:36–39.

This readies projection device 10 for firing:

As the spring 18 is stretched, air is sucked into an air compression chamber 31 located between plunger seal 24 and air seal 22. Air seal 22 abuts against a stop (not shown) just behind the firing position 30 to prevent air seal 22 from following the plunger 12 past a certain point as it is drawn back.

Id. at 5:40–45. To fire projection device 10, the user lets go of handle 12:

When the user releases the handle 12, the spring 18 quickly pulls the plunger 12 back inside the plunger cylinder 19. This creates a rapid increase in air pressure in the air compression chamber 31 between plunger seal 24 and air seal 22. Consequently, air seal 22 is propelled rapidly through barrel 15 towards the distal end of barrel 15 and simultaneously accelerates the holder for a soft-projectile 14 and the soft-projectile 16.

Id. at 5:45–52.

D. ILLUSTRATIVE CLAIMS

Independent claim 1 recites “[a]mmunition configured for use with a projectile launcher.” Ex. 1001, 9:29–30. Each of the challenged claims adds limitations to claim 1's limitations. For example, each of claims 2, 3, and 5–7 depends, directly or indirectly from claim 1. *Id.* at 9:29–30, 9:34, 9:36, 9:41, 9:43, 9:46. Claim 8 recites “[a] projectile launcher including the ammunition of claim 1.” *Id.* at 9:50–51. Each of claims 9–15, 17, and

19–21 depends from claim 8. *Id.* at 10:3, 10:5, 10:7, 10:9, 10:11, 10:15, 10:18, 10:23, 10:31, 10:38, 10:46. Claims 1, 2, and 8 are reproduced below.

1. Ammunition configured for use with a projectile launcher comprising: a plurality of soft-projectiles having the same shape, each soft projectile being formed from hydrated super absorbent polymer.

Ex. 1001, 9:29–33.

2. The ammunition of claim 1, wherein the ammunition is disposed within a feed chamber of the projectile launcher.

Id. at 9:34–35.

8. A projectile launcher including the ammunition of claim 1 disposed within a feed chamber of the projectile launcher, and wherein the projectile launcher is adapted to load a soft-projectile from the feed chamber to a firing position.

Id. at 9:50–10:2.

E. ASSERTED GROUND OF UNPATENTABILITY

Claims 2, 3, 5–15, 17, and 19–21 are challenged on the following ground:⁵

Claims Challenged	35 U.S.C. § ⁶	References
2, 3, 5–15, 17, 19–21	103(a)	Spitballs ⁷ , Peev ⁸

In support of its challenges, Petitioner also relies on the Declarations of Joel Delman (Ex. 1016), Dr. Maureen T. F. Reitman, Sc.D., F.S.P.E., P.E. (Ex. 1017), and Amy Courtney, Ph.D., CAISS (Ex. 1037). Patent Owner relies on the Declaration of Barry Matthew Kudrowitz, Ph.D (Ex. 2015).

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL IN THE ART

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention (POSA). *Graham v. John Deere Co.*, 383 U.S. 1, 13, 17 (1966). In assessing the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art

⁵ The Petition also challenged claims 1 and 4 as allegedly anticipated and obvious, but Patent Owner’s disclaimer of claims 1 and 4 obviated these challenges. Pet. 15; Prelim. Resp. 26; Ex. 2013.

⁶ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), revised 35 U.S.C. § 103, effective March 16, 2013. Because the application for the ’282 patent was filed before this date, the pre-AIA version of § 103 applies. See Ex. 1001, code (22).

⁷ Publication Declaration of Nathaniel E. Frank-White and ThinkGeek Spitballs Internet Archive Webpage (Ex. 1002, “Spitballs”).

⁸ Peev et al., Bulgarian Patent Application Publication No. 110343, published July 31, 2009 (Ex. 1003, “Peev”).

solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962–63 (Fed. Cir. 1986)).

In this proceeding, neither Petitioner nor Patent Owner expressly specifies the level of ordinary skill in the art that we should apply. The Petition notes that, in the ITC proceeding, Petitioner proposed that an ordinarily skilled artisan for the ’282 patent would be “(i) an individual with a Bachelor's degree in Industrial Design or Mechanical Engineering or (ii) a toy designer with at least five years' experience designing toys (including launchers), with both of (i) and (ii) having access to a chemist knowledgeable regarding super absorbent polymers.” Pet. 19 (citing Ex. 1015, 8). The Petition also notes that, in the ITC proceeding, Patent Owner proposed that an ordinarily skilled artisan for the ’282 patent would have

a bachelor’s degree in mechanical engineering, industrial design, or equivalent, with at least one year of relevant experience designing projectile launching systems but would also be a member of a team, which would include a[] person with a bachelor’s in materials science, chemistry, or equivalent (e.g., chemical engineering), or has at least one year experience working with materials for use in consumer products.

Id. (citing Ex. 1015, 7–8). The Petition further notes that, in the ITC proceeding, Patent Owner also stated that “equivalent work experience may substitute for educational experience, and vice versa.” *Id.* Additionally, the Petition notes that another definition of the level of ordinary skill in the art was advanced by the Commission Investigative Staff in the ITC proceeding.

Id. at 19–20 (citing Ex. 1015, 8). Patent Owner’s Response does not expressly discuss the level of ordinary skill in the art. *See generally* PO Resp.

Characterizing the definitions of the level of ordinary skill in the art that were proposed in the ITC proceeding as “similar” and noting the ITC ALJ’s determination that “all of the proposals are appropriate,” Petitioner does not argue for the application of any particular level of skill in the art in this proceeding. Pet. 20 (citing Ex. 1015, 8). We too find the definitions advanced in the ITC proceeding similar. Indeed, any differences between the definitions do not rise to a level that would affect our analysis of whether the Petition and associated evidence are sufficiently persuasive for purposes of institution.

In our view, the foregoing level of ordinary skill in the art proposed by Patent Owner in the ITC proceeding best fits the legal requirements. Accordingly, we adopt and apply that level of ordinary skill in the art in our analysis of the merits.

B. CLAIM INTERPRETATION

We apply the same claim construction standard used in district courts, namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2022). In applying that standard, claim terms generally are given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13.

With respect to claim construction, the Petition notes the constructions of certain claim terms adopted by the ALJ in the ITC proceeding.

Pet. 20–21 (citing Ex. 1015, 12, 14, 19, 23). The Petition does not propose a construction of any claim language for this proceeding. *Id.* Nor does Patent Owner’s Response propose a construction of any claim language for this proceeding. *See generally*, PO Resp.

The parties’ arguments and evidence do not raise any issues that necessitate an express claim construction in order to determine whether Petitioner has demonstrated by a preponderance of the evidence the unpatentability of at least one of the challenged claims. Accordingly, we need not and do not expressly construe any claim language. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. ALLEGED OBVIOUSNESS OVER SPITBALLS AND PEEV

1. *Overview of Spitballs*

Spitballs is a reproduction of webpages from the thinkgeek.com website as archived by the Internet Archive. Ex. 1002. Spitballs discusses and shows a product called “Spitballs,” explaining that “Spitballs start out as tiny balls and expand 200 times when stuck in water.” *Id.* at 21. On page 5, Spitballs includes an image of the product, which is reproduced below. Ex. 1002, 5.



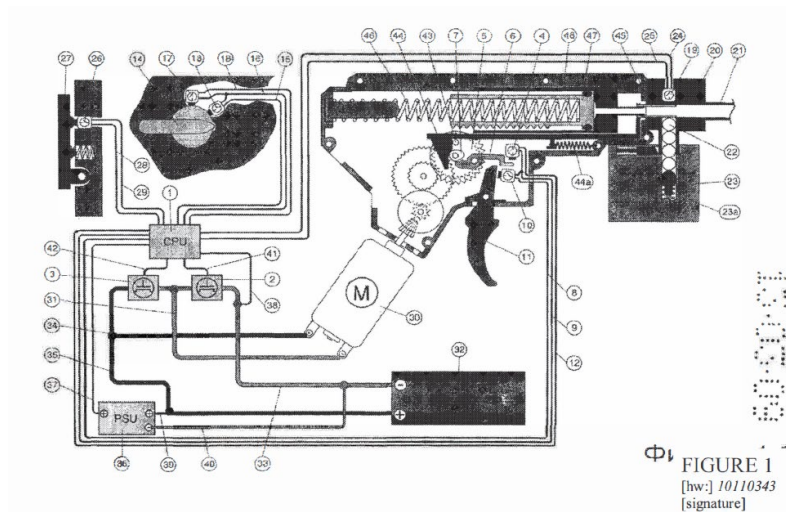
The image on page 5 of Spitballs shows numerous small pellets inside a package, along with a few larger balls, which apparently are the product after it has swollen by absorbing liquid. *Id.* The product package says “Grows 200x Their Size!” *Id.* The product package also says “They Slip, Slide, Bounce & Explode!” and “Fun to Throw!” *Id.*

2. Overview of Peev

Peev is a Bulgarian Patent Application titled “Electric Airsoft Rifle,” Application No. 110343, published on July 31, 2009.⁹ Ex. 1003, 22, codes (21, 41), 23. Peev discloses an electric airsoft gun “used for military simulations or training.” *Id.* at code (57).

⁹ An English-language translation is included with Peev. Ex. 1003, 22–41. We cite to the English-language translation, using the page numbers at the bottom of each page.

An object of Peev is to “ensure that the operation and handling of the electric airsoft gun is as close as possible to the operation and handling of the real firearm.” *Id.* at 27. Peev describes electric airsoft guns as similar to real firearms, except they use compressed air to fire “polymer balls with a diameter of 6 mm,” “instead of cartridges.” *Id.* at 23. Peev explains that electric airsoft guns include a barrel and a magazine. *Id.* To compress the air for launching balls, Peev discloses a mechanism with a piston and cylinder, a spring behind the piston, a reduction gear below the cylinder, and a sector gear in contact with a gear rack on the piston’s outer surface. *Id.* Peev shows such a configuration in Figures 1 and 2, which are reproduced below.



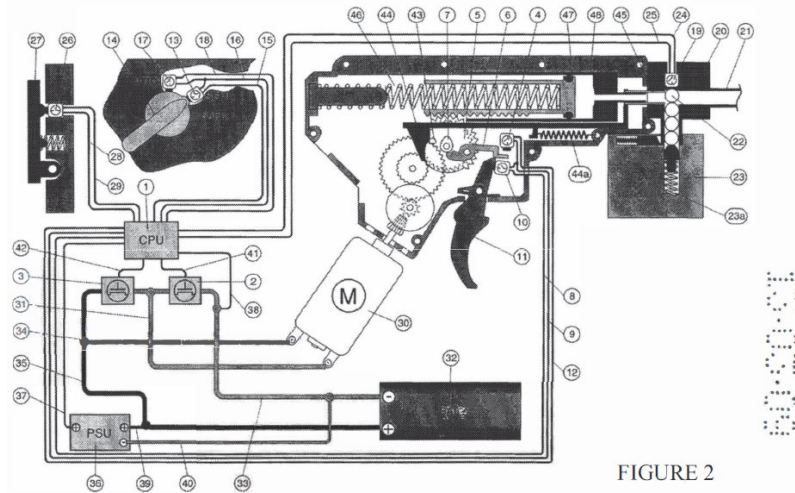


FIGURE 2

Each of Figures 1 and 2 is “a longitudinal section of a portion of an electric airsoft gun.” *Id.* at 29. Figures 1 and 2 show the airsoft gun in different operational states. *Id.*

The airsoft gun in Figures 1 and 2 includes, among other components, sector wheel 5, trigger 11, switching lever 14, chamber 20, barrel 21, ball 22, magazine 23, electric motor 30, connecting plate 44, nozzle 45, spring 46, piston 47, and cylinder 48. *Id.* at 31–32. The firing process begins with actuation of trigger 11. *Id.* at 31. When fire mode switching lever 14 is not in its “SAFE” position and a user presses trigger 11, electric motor 30 is activated. *Id.* at 31. Sector wheel 5 retracts piston 47 and tightens spring 46. *Id.* Nozzle 45 retracts through connecting plate 44. *Id.* This permits ball 22 to enter chamber 20 of barrel 21. *Id.* at 31–32. Nozzle 45 pushes ball 22 into barrel 21. *Id.* at 32. After ball 22 enters barrel 21, firing occurs as follows:

At the moment when the last tooth of the sector wheel 5 wears the last tooth of the piston 47, the latter, under the pressure of the spring 46, accelerates forward and compresses the air in the cylinder 48, inserting it through the nozzle into the barrel 21 and firing the ball 22.

Id.

Peev's gun operates in different ways, depending on the position of switching lever 14. *Id.* at 31–33. When switching lever 14 “is in the ‘SEMI’ (single firing) position,” the user must press and release trigger 11 each time he or she wishes to fire a projectile. *Id.* at 31. Peev explains that “[t]o carry out firing in automatic mode, the fire mode selector lever 14 must be placed in the ‘AUTO’ (automatic fire) position” and that “firing continues in automatic mode until the trigger 11 is released.” *Id.* at 32–33.

3. *Analysis*

a) *Overview*

Petitioner argues that it would have been obvious to use SAP ammunition, as taught by Spitballs, in an airsoft gun, as taught by Peev. Pet. 2–4, 33–39. According to Petitioner, the combination meets all of the limitations of claims 2, 3, 5–15, 17, and 19–21. *Id.* at 2, 39–56.

“Specifically, all the projectile launcher limitations of the claims are disclosed in Peev, and all the ammunition limitations are disclosed in Spitballs,” Petitioner argues. *Id.* at 2.

Patent Owner counters that “Petitioner’s hindsight-laden attempt to prove obviousness fails.” PO Resp. 2. Among other things, Patent Owner argues that Petitioner has not shown sufficiently that it would have been obvious to use Spitballs’s ammunition in Peev’s gun. *E.g., id.* at 1–2, 11–39.

Having reviewed all of the record arguments and evidence, we determine that Petitioner has not shown obviousness of the challenged claims by a preponderance of the evidence. In particular, for at least the reasons outlined below, Petitioner does not provide sufficiently persuasive support for factual assertions underpinning its conclusion of obviousness.

b) Finite Number of Identified, Predictable Solutions

As the basis for its obviousness conclusion, Petitioner relies on the following rationale:

When there is a design need or market pressure to ***solve a problem*** and there are a ***finite number of identified, predictable solutions***, a person of ordinary skill has good reason to ***pursue the known options within his or her technical grasp***. If this leads to the anticipated success, it is likely the product not of innovation but of ***ordinary skill and common sense***.

Pet. 33 (quoting *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007)).

Petitioner explains that “our whole presentation has been based on this portion from *KSR*, what some people call the problem-solution approach.”

Tr. 6:3–5. Petitioner suggests that there was a known problem of airsoft guns like Peev’s injuring young people, and that replacing Peev’s ammunition with hydrated SAP ammunition was among a finite number of identified, predictable solutions. Pet. 33–39.

Petitioner does not persuade us that the facts here satisfy all aspects of the so-called problem-solution approach of *KSR*, on which Petitioner’s obviousness contentions rest. For example, to the extent Petitioner shows recognition of a problem in the art, Petitioner does not persuade us that using SAP ammunition in an airsoft gun like Peev’s was one of “a finite number of identified, predictable solutions.”

For example, Petitioner does not persuade us that it was an identified, predictable solution to use SAP ammunition in Peev’s magazine-fed, auto firing electric airsoft gun. Pet. 37; PO Resp. 13–27; Reply 9–14, 17; Sur-reply 11–16. Petitioner cites Mr. Delman’s testimony that “[t]here was a finite number of ammunition options that a [person of ordinary skill in the art] could have considered that would have a reasonable expectation of

success in an airsoft gun such as Peev, including rubber, cork, foam, and soft plastics, such as SAPs.” Ex. 1016 ¶ 78; Pet. 37. For multiple reasons, this testimony fails to support Petitioner’s suggestion that using SAP ammunition in Peev’s airsoft gun was among a finite number of identified, predictable solutions. For example, because Mr. Delman does not support this testimony with objective supporting evidence, it is not entitled to persuasive weight in Petitioner’s favor. Ex. 1016 ¶ 78; 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). Additionally, even if Mr. Delman substantiated his view that an ordinarily skilled artisan “could have considered” SAPs as airsoft ammunition, that would not persuade us that SAPs were *identified, predictable* solutions for airsoft ammunition.

Petitioner also argues that Spitballs teaches launching SAPs from a tube. Pet. 27–29. That argument does not persuade us that an ordinarily skilled artisan would have leaped from using SAP in a blow gun to considering SAP an identified, predictable solution for Peev’s magazine-fed, auto firing electric airsoft gun. As both parties note, ASTM standards describe airsoft ammunition as “spherical, commonly 6 mm (.24 cal), non-metallic and non-liquid filled.” Ex. 2028, 1; Ex. 2029, 2; PO Resp. 8–9; Reply 15–16. We agree with Patent Owner that the standard shows that “the airsoft industry had turned away from liquid-filled projectiles like the Spitballs polymers.” PO Resp. 21. As pointed out by Patent Owner, Petitioner turns to a declarant that is not a chemist, and, thus, we give little weight to the opinion of Dr. Courtney on whether Spitballs would have been considered liquid filled by one of ordinary skill in the art. Pet. Reply 16;

Sur-reply 18; Ex. 1037 ¶ 55; Ex. 2121, 61:12–13; *see also* PO Sur-reply 14–15 (arguing that Dr. Courtney does not meet the adopted level of ordinary skill in the art).

Moreover, consistent with Patent Owner’s arguments, blowing a hydrated SAP sphere from a tube is significantly different from and simpler than using SAP ammunition in Peev’s magazine-fed, automatic firing electric airsoft gun. PO Resp. 9–10, 21–24. Petitioner does not cite persuasive evidence that an ordinarily skilled artisan would have thought one could simply load Spitballs’s ammunition in Peev’s gun and fire. Although Petitioner and Mr. Delman advance that it would have been within the skill in the art to modify Spitballs’s ammunition and/or Peev’s gun to work together, that does not show that such an approach was an identified, predictable solution. *E.g.*, Pet. 37–38, 45, 49–50; Ex. 1016 ¶¶ 78–79, 97–98, 111–112.

Petitioner also argues that “[a]s to *KSR*’s question of whether there were ‘a finite number of identified, predictable solutions to [the alleged injury problem], Dr. Kudrowitz admitted that prior to 2010, a POSITA knew that one way to make a hard projectile less likely to cause injury would be to make it softer.” Pet. 36. To the extent an ordinarily skilled artisan would have known that using softer ammunition is one way to reduce injury risk, that alone does not make SAP ammunition an identified, predictable solution for airsoft ammunition. On the whole, Petitioner does not support sufficiently its assertion that using SAP ammunition in a magazine-fed, auto firing electric airsoft gun like Peev’s was an identified, predictable solution.

Moreover, even if that was an identified, predictable solution, Petitioner does not provide viable evidence for the argument that it was

among a finite number of such solutions. Pet. 37. The cornerstone of this argument is Mr. Delman’s testimony that “[t]here was a finite number of ammunition options that a POSITA could have considered that would have a reasonable expectation of success in an airsoft gun such as Peev, including rubber, cork, foam, and soft plastics, such as SAPs.” Ex. 1016 ¶ 78; Pet. 37. We note again that this conclusory testimony has no persuasive weight in Petitioner’s favor. 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Furthermore, even if Mr. Delman had substantiated his view that an ordinarily skilled artisan knew to pick airsoft ammunition solutions from “rubber, cork, foam, and soft plastics, such as SAPs,” it strains credibility to characterize these categories as limited to a “finite number” of solutions. For example, it is difficult to fathom that the category of “soft plastics” by itself is limited to a finite number of identified, predictable solutions. As Patent Owner notes, SAPs alone “are a large class” including a “large number of different base polymer compositions,” as explained by Petitioner’s witness, Dr. Reitman. Ex. 1017 ¶¶ 21, 28; PO Resp. 34–35. Moreover, Patent Owner notes that Dr. Reitman and documentary evidence recognize the existence of “a wide range of natural and synthetic polymers” and “many different polymeric materials.” Ex. 1017 ¶ 8; Ex. 2120, 73; PO Resp. 26–27. To the extent some materials in the category of “soft plastics” were identified airsoft ammunition solutions, Petitioner does not provide persuasive evidence that those were finite in number. *See, e.g.*, Pet. 33–39; Reply 17. In addition, Petitioner does not provide viable evidence that, within the categories of rubber, cork, and foam, there would have been finite

options. *See, e.g.*, Pet. 33–39; Reply 17. In sum, to the extent that the categories “rubber, cork, foam, and soft plastics, such as SAPs,” may include identified, predictable airsoft ammunition solutions, Petitioner’s evidence does not show that they are finite in number.

c) Motivation to Combine

Petitioner contends that “there was motivation to use [Spitballs’s] prior art soft spherical ammunition with the airsoft guns described in Peev.” Pet. 2–3. Petitioner contends that children were suffering injuries from hard airsoft ammunition and Spitballs were a known safer ammunition. *Id.* at 3, 33–39; Reply 9–14. Petitioner also argues that an ordinarily skilled artisan would have been motivated to use SAP ammunition in Peev’s airsoft gun because an ASTM standard requires “resilient” projectiles for toys that fire with energy above 0.08 J. Reply 14–16.

Patent Owner persuades us that Petitioner’s alleged motivation to use SAP ammunition for Peev’s airsoft gun rests on oversimplification of the relevant considerations. For example, Petitioner does not marshal a preponderance of the evidence for its contention that “a [person of ordinary skill in the art] would have known that SAP ammunition (Spitballs) was a safer ammunition than hard plastic airsoft ammunition and was less likely to cause injury.” Pet. Reply 14. In support of this position, Petitioner contends that SAP was known to be softer than conventional airsoft ammunition. *E.g., id.* at 9–14. Based on Spitballs’s disclosure that its hydrated SAP “[w]ill bounce and/or explode into mushy parts on impact” and other evidence, Petitioner and its witnesses explain that an ordinarily skilled artisan would have known an SAP projectile’s mechanical properties would help it dissipate and spread its kinetic energy on impact, helping to reduce its

damage potential. Reply 9–14. Petitioner persuades us that an ordinarily skilled artisan would have viewed softness and frangibility as factors generally tending to diminish a projectile’s propensity to injure. *Id.*

As Patent Owner argues, however, it was known that other factors also affect a projectile’s propensity to injure. PO Resp. 14–18. For example, Petitioner’s witness, Dr. Courtney, testifies that “[f]actors that affect the damage potential of a projectile impacting a surface include its mass, velocity, size, contact area, and deformability.” Ex. 1037 ¶ 33. Consistent with Dr. Courtney’s observation that mass, velocity, and size affect damage potential, Dr. Kudrowitz testifies that (1) mass and velocity determine kinetic energy and (2) “[c]ontemporaneous literature confirms that a kinetic energy analysis was a conventional approach for evaluating safety of projectile launching devices of all sorts.” Ex. 2015 ¶¶ 55–56 (citing Ex. 1019, 9). As an example of how mass affects damage potential, Dr. Kudrowitz notes that, due to their higher mass, paintballs “hit harder in almost all cases” than airsoft ammunition. *Id.* ¶ 57 (citing Ex. 2016, 9). Dr. Kudrowitz further testifies that Spitballs’s SAP projectile would have fourteen times as much mass and kinetic energy as a conventional airsoft projectile. *Id.* ¶ 59 (citing Ex. 1017 ¶ 70; Ex. 1002, 21; Ex. 2016, 11). Dr. Kudrowitz determined this using the mass that Petitioner’s witness, Dr. Reitman, calculated for Spitballs’s SAP projectile. *Id.*; Ex. 1017 ¶ 70.

In view of this, Dr. Kudrowitz “disagree[s] that a [person of ordinary skill in the art] would have jumped to Mr. Delman’s conclusion” that it would have been safer to use SAP projectiles in Peev’s airsoft gun. Ex. 2015 ¶ 42. Dr. Kudrowitz reasons that “[i]t was well-known . . . that the kinetic energy possessed by a projectile plays a prominent role in its

capacity to injure someone,” which comports with Dr. Courtney’s testimony. Ex. 2015 ¶ 54; Ex. 1037 ¶ 33. Dr. Kudrowitz also cites paintballs as an example of ammunition that is softer, yet heavier and generally more injurious than airsoft ammunition. Ex. 2015 ¶¶ 46–52.

Petitioner does not dispute Dr. Kudrowitz’s testimony that it was understood in the art that softer but heavier ammunition could prove generally more injurious. *See generally* Reply. Rather, Petitioner faults Dr. Kudrowitz for basing his testimony on the mass of Spitballs’s 15.24 mm hydrated SAP projectile, rather than a hydrated SAP projectile with the 6 mm diameter of Peev’s ammunition. Reply 13–14. This argument rings hollow because Dr. Kudrowitz relied on the only SAP projectile mass that Petitioner’s witness calculated. Ex. 2015 ¶ 59; Ex. 1017 ¶ 70. Petitioner’s argument also improperly attempts to shift the burden to Patent Owner to show an ordinarily skilled artisan would not have thought using SAP projectiles with Peev’s airsoft gun would have increased safety. Rather than merely criticizing Dr. Kudrowitz for not comparing a 6 mm SAP projectile’s mass to that of conventional airsoft ammunition, Petitioner seemingly could have done so itself in its Reply.

Instead, Petitioner argues that Dr. Kudrowitz found SAP ammunition to have fourteen times the mass of airsoft ammunition based on an SAP projectile “*more than twice as large*” as Peev’s 6 mm airsoft ammunition. Reply 13–14. In addition to improperly dodging Petitioner’s burden, this argument is mathematically unpersuasive. If a 15.24 mm SAP projectile has fourteen times the mass of Peev’s airsoft ammunition, a 6 mm SAP projectile with less than half the size of a 15.24 mm SAP projectile could still have much more mass than Peev’s airsoft ammunition. Petitioner’s

argument tends to show that an ordinarily skilled artisan would have viewed a 6 mm SAP projectile as generally less injurious than Spitballs's 15.24 mm SAP projectile, but it does not show that an ordinarily skilled artisan would have considered a 6 mm SAP projectile less injurious than Peev's airsoft ammunition. Without more persuasive evidence about how SAP ammunition would have compared to airsoft ammunition on mass and the other recognized factors affecting injury potential, Petitioner's evidence that SAP projectiles would have been softer and more frangible than airsoft ammunition does not demonstrate by a preponderance of the evidence that an ordinarily skilled artisan would have thought that using SAP ammunition in Peev's gun would have increased safety.

We also find unavailing Petitioner's argument that ASTM F963-07 requires a "resilient" projectile for firing at an energy level greater than 0.08 J and would have motivated a skilled artisan to use hydrated SAP ammunition in Peev's airsoft gun. Reply 14–16. ASTM F963-07 serves "to establish nationally recognized safety requirements for *toys*." Ex. 2119, 1 (emphasis added). For a "projectile . . . suitable for use in the sport commonly called *airsoft*," ASTM has a different standard: F2679-07. Ex. 2028, 1 (emphasis added). Given this, Petitioner does not persuade us that an ordinarily skilled artisan would have looked to the ASTM standard for toys when selecting ammunition to use with Peev's "electric airsoft gun." Reply 14–16. We recognize Petitioner and Mr. Delman cite Peev's discussion that its airsoft gun may be "used . . . for *fun* when conducting airsoft games" and "increases the number of shots that can be *played*." Pet. 21–22; Ex. 1016 ¶ 53. But those disclosures do not show that an ordinarily skilled artisan would have considered Peev's airsoft gun a toy or looked to

ASTM F963-07 for guidance regarding ammunition for Peev's gun. Moreover, for the reasons explained above, Petitioner does not persuade us that an ordinarily skilled artisan blindly would have considered every soft or resilient ammunition safe without considering the other factors affecting injury potential.

In reaching the foregoing determinations, we have factored in Petitioner's assertions that Kim and the Vat19 video show simultaneous invention and support a conclusion of obviousness. Pet. 57–60. As Patent Owner argues, neither of these disclosures actually shows simultaneous invention because neither teaches all features of the challenged claims. PO Resp. 61–62. Kim does not teach the SAP ammunition required by the challenged claims. *Id.* at 61–62. And Petitioner does not allege that Vat19 teaches the limitations of the challenged claims, such as claim 2's requirement to have that “the ammunition is disposed within a feed chamber of the projectile launcher.” Ex. 1001, 9:34–35.

We also have factored in Petitioner's arguments and evidence that a person of ordinary skill in the art would have had a reasonable expectation of successfully using soft SAP ammunition with Peev's airsoft gun. *E.g.* Pet. 37–38; Reply 17–21. Although Petitioner's evidence may show that a person of ordinary skill in the art could have done so, that does not persuade us that a person of ordinary skill in the art would have had reason to do so.

III. CONCLUSION

For the foregoing reasons, we are not persuaded that Petitioner has shown unpatentability of any of claims 2, 3, 5–15, 17, and 19–21 of the '282 patent by a preponderance of the evidence.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
2, 3, 5–15, 17, 19–21	103(a)	Spitballs, Peev		2, 3, 5–15, 17, 19–21
Overall Outcome				2, 3, 5–15, 17, 19–21

IV. ORDER

For the reasons given, it is:

ORDERED that claims 2, 3, 5–15, 17, and 19–21 have not been shown to be unpatentable; and

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

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PETITIONER:

Kenneth P. George
Brian A. Comack
AMSTER, ROTHSTEIN & EBENSTEIN LLP
kgeorge@arelaw.com
bcomack@arelaw.com

PATENT OWNER:

Kenneth W. Darby
Linghong Zhang
Ethan Rubin
FISH & RICHARDSON P.C.
kdarby@fr.com
lwzhang@fr.com
rubin@fr.com

Jennifer C. Bailey
ERISE IP, P.A.
jennifer.bailey@eriseip.com