

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RTG PARTS, LLC,
Petitioner,

v.

SCHMEISSER GMBH,
Patent Owner.

IPR2022-00083
Patent 10,866,045 B2

Before ANNETTE R. REIMERS, JAMES A. TARTAL, and
FREDERICK C. LANEY, *Administrative Patent Judges*.

LANEY, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background and Summary

RTG Parts, LLC (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–7, 9, and 11–19 (the “challenged claims”) of U.S. Patent No. 10,866,045 B2 (Ex. 1001, “the ’045 patent”). Schmeisser GmbH, (“Patent Owner”) filed a Preliminary Response (Paper 5, “Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 314. Under § 314, an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). The Board determines whether to institute a trial on behalf of the Director. 37 C.F.R. § 42.4(a). A decision to institute is “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition.” *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018).

For the reasons set forth below, we determine that Petitioner has not demonstrated that there is a reasonable likelihood that at least one of the challenged claims is unpatentable. Accordingly, we do not institute an *inter partes* review of the challenged claims in the Petition.

B. Real Parties-in-Interest

Petitioner identifies RTG Parts, LLC and AC-Unity, d.o.o. as the real parties-in-interest. Pet. 115. And Patent Owner identifies itself as the sole real party-in-interest. Paper 4, 2.

C. Related Matters

Petitioner and Patent Owner both identify *Schmeisser GmbH v. AC-Unity d.o.o et al.*, No. 0:21-cv-0024 (D. Wy), which is patent infringement

litigation filed by Patent Owner against Petitioner, as the sole related matter. Pet. 115; Paper 4, 2.

D. The '045 Patent

The '045 patent discloses a housing for a stack-type magazine for a firearm. Ex. 1001, 1:18–20. The '045 patent is a continuation of application No. PCT/EP2018/000558, filed Dec. 13, 2018. *Id.* at code (63).

The '045 patent discloses a housing that forms an interior space having first and second regions divided by a transition region. *Id.* at 2:62–67. The first region accommodates four stacks of cartridges directly adjoining one another, and the second region accommodates two stacks of cartridges directly adjoining one another. *Id.* at 3:22–27. The cartridges are directly adjoining because they directly touch each other. *Id.* at 3:34–36. This arrangement of the cartridges is disclosed as improving the accuracy of the movement of the cartridges. *Id.* at 3:59–66. An inside surface of the front wall of the housing has a first protrusion, and an inside surface of the rear wall has a second protrusion, which improve how the individual cartridges are ordered and integrated as they are fed through the housing. *Id.* at 5:33–50. Figure 4 from the '045 patent is reproduced below.

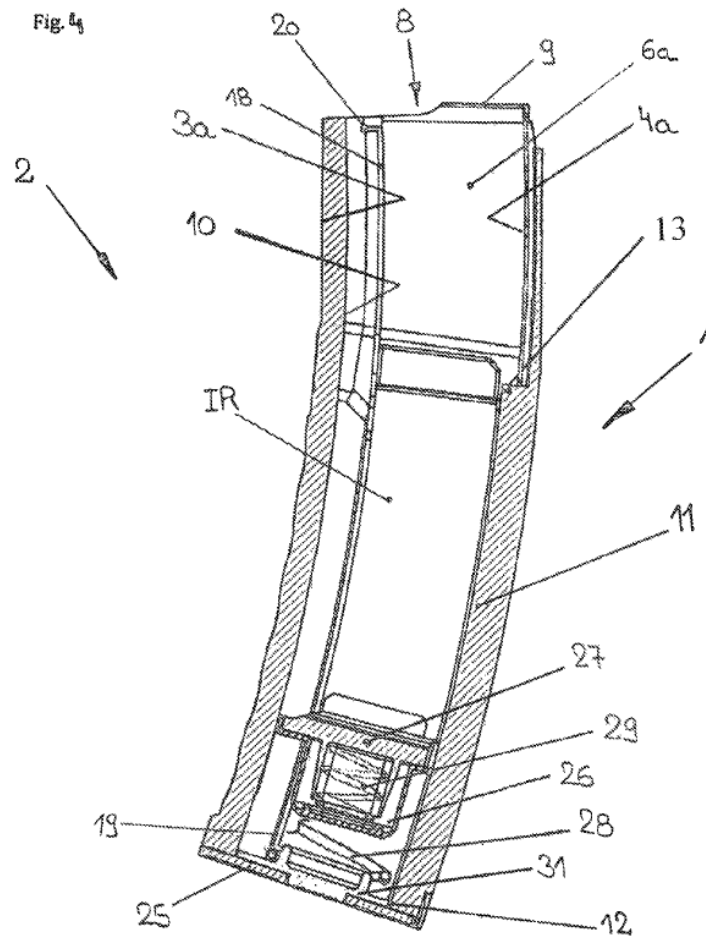


Figure 4 illustrates a sectioned side view of a cartridge magazine with housing. Ex. 1001, 8:55–57. As shown in Figure 4, cartridge magazine 2 includes front wall 3 having inside 3a and rear wall 4 having inside 4a of housing 1. *Id.* at 9:10–12.

Inside 3a of front wall 3 extends along a first circular path K1, and inside 4a of rear wall 4 extends along a second circular path K2. Ex. 1001, 9:19–25; *see also* Fig. 1. The housing also includes housing top side 8 and bottom cover 25 fixed to the bottom side of housing 1. *Id.* at 9:12–13, 9:30–31. Housing top side 8 includes magazine lips 9 that support a top cartridge P, when the cartridge is loaded into interior space IR. *Id.* at 9:31–33. The cartridges are fed through the housing using a cartridge feeder that includes

second feeder 27, which is pressed against the force of second spring 29 into the space of first feeder 26, which in turn is pressed into the inside space of the first region I (discussed below) against the force of first spring 28, which is arranged between first feeder 26 and bottom plate 25. *Id.* at 10:41–45. Interior space IR of housing 1 is further depicted in Figure 6, reproduced below.

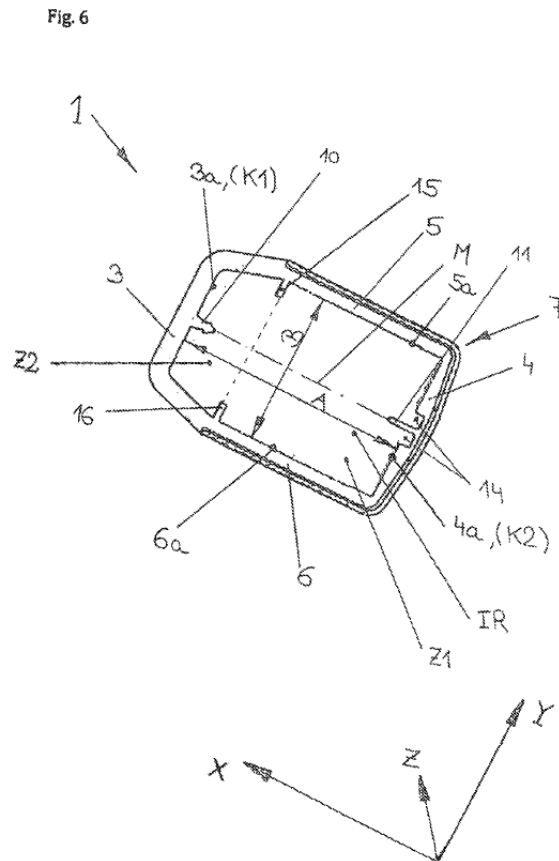


Figure 6 is a view of the housing cross section in region I of Figure 5.
Ex. 1001, 8: 61–62.

Figure 6 shows that inside surface 3a of front wall 3 has a first protrusion 10 which protrudes in the X-axis direction into inside space IR of housing 1, and extends along the Z-axis from transitional region III at least partially into first region I and at least also partially into second region II.

Id. at 10:23–28. Inside surface 4a of rear wall 4 has a second protrusion 11, which protrudes in the X-axis direction, and which extends along the Z-axis from housing bottom side 7 to transitional region III. *Id.* at 10:28–34. The '045 patent explains that by using this protrusion arrangement, the cartridge feeder or feeders are guided laterally to reduce the risk of misalignment of a cartridge or the cartridge feeder, which reduces malfunction of the cartridge magazine, while increasing the rigidity and stability of the housing. *Id.* at 7:22–27. The cartridge arrangement inside the housing is depicted in Figure 5, reproduce below.

Fig. 5

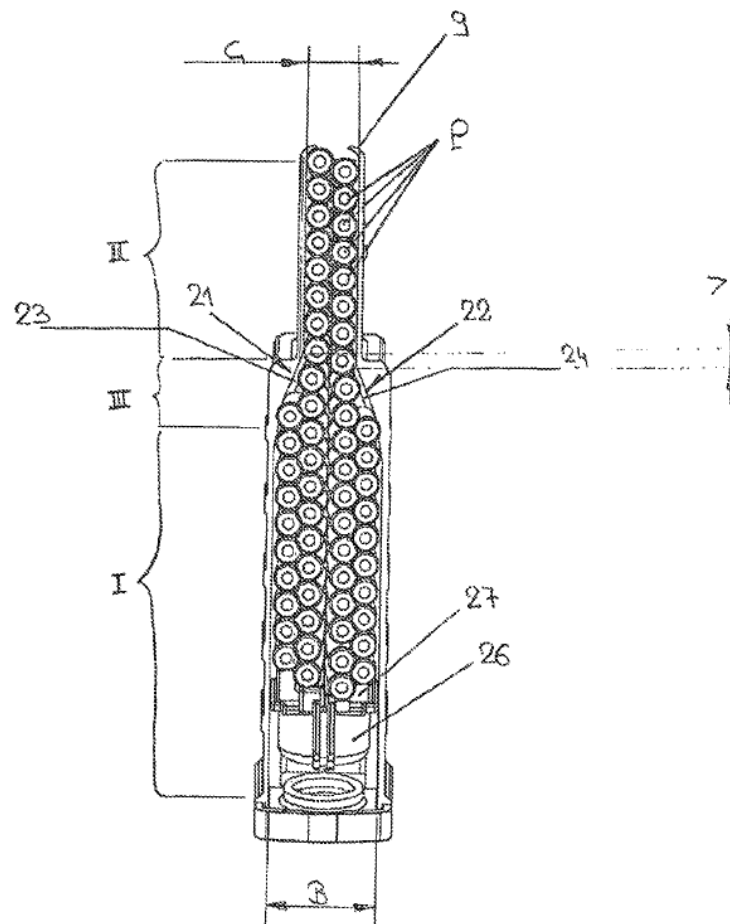


Figure 5 is a rear view of the cartridge magazine in a sectional view partially filled with cartridges. Ex. 1001, 8:59–60.

Figure 5 shows cartridge magazine 2 partially loaded with cartridges P, and having first region I that accommodates four stacks of cartridges P, which are arranged directly adjacent to one another and offset relative to one another in the Z-direction. *Id.* at 10:49–54. Magazine 2 also has second region II that accommodates two stacks of cartridges P, which are arranged directly adjacent to one another and offset relative to one another in the Z-direction. *Id.* at 10:55–58. A transitional region III connects region I and region II to each other. *Id.* at 9:47–49.

E. Illustrative Claim

The '045 patent has 19 claims, with claims 1 and 19 being the only independent claims. Ex. 1001, 12:66–16:19. Independent claim 1 is directed to a housing for a cartridge magazine for a firearm. *Id.* at 12:66–13:45. Claims 2–18 depend, directly or indirectly, from claim 1. *Id.* at 13:46–14:55. Independent claim 19 is directed to a cartridge magazine for a firearm that includes all of the limitations of claim 1, as well as a few additional limitations directed to a bottom cover; a spring associated with a first feeder; and a spring associated with a second feeder. *Id.* at 14:56–16:19.

Independent claim 1 is illustrative and is reproduced below with bracketed labels employed by Petitioner to facilitate analysis and discussion.

1. [1.0] A housing for a cartridge magazine for a firearm, which extends along an X-axis, a Y-axis and a Z-axis, comprising:
 - [1.1] a front wall; [1.2] a rear wall;
 - [1.3] a first side wall; and,

[1.4] a second side wall, inside surfaces of the front wall, the rear wall, the first side wall and the second side wall forming an interior space consisting of a first region and a second region, between the first region and the second region a transitional region is formed which connects the first region and the second region with one another;

[1.5] wherein the interior space is limited by the inside surfaces of the front wall, the rear wall, the first side wall and the second side wall;

[1.6] wherein the inside surface of the front wall extends in the direction of the Z-axis in at least one of the regions along a first circular path;

[1.7] wherein the inside surface of the rear wall extends in at least one of the regions in the direction of the Z-axis along a second circular path;

[1.8] wherein the inside surfaces of the front wall and the rear wall in at least one of the regions are located at a first distance (A) from one another;

[1.9.0] wherein the housing has a housing bottom side and a housing top side, magazine lips are formed on the housing topside, and the housing bottom side is designed to be at least partially open,

[1.9.1] the first region being configured for accommodating four stacks of cartridges arranged directly adjoining one other and being offset in the Z-direction relative to one another, the second region being configured for accommodating two stacks of cartridges arranged directly adjoining one another and being offset in the Z-direction relative to one another,

[1.10.1] wherein the inside surface of the front wall has a first protrusion which protrudes in direction of the X-axis into the interior space of the housing and extends along the Z-axis originating from the transitional region at least partially into the first region and also at least partially into the second region, and

[1.10.2] the inside surface of the rear wall has a second protrusion which protrudes in direction of the X-axis into the interior space of the housing and which along the Z-axis features a start in the first region and an end in the transitional region or in the second region.

Ex. 1001, 12:66–13:45; *see* Pet. 32–61 (bracketed numbers added by Petitioner).

F. Prior Art and Asserted Grounds

Petitioner asserts that one or more of the challenged claims would have been obvious on the following three grounds:

Claim(s) Challenged	35 U.S.C. §¹	Reference(s)/Basis
1–7, 9, 11–15, 18, 19	103(a)	Gromov, ² Musgrave ³
16, 17	103(a)	Gromov, Musgrave, Sullivan ⁴
19	103(a)	Gromov, Musgrave, Sullivan

II. ANALYSIS

A. Legal Standards

Petitioner has the burden of proof. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.”).

Section 103(a) forbids issuance of a patent when “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

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011), took effect on September 16, 2011. The changes to 35 U.S.C. §§ 102 and 103 in the AIA do not apply to any patent application filed before March 16, 2013. Because the application for the patent at issue in this proceeding has an effective filing date after March 16, 2013, we refer to the AIA version of the statute.

² Russian Patent No. RU 2 588 558, pub. June 27, 2016 (Ex. 1005, “Gromov”). We refer to the Certified English translation (Ex. 1006).

³ US 3,226,869, iss. Jan. 4, 1966 (Ex. 1007, “Musgrave”).

⁴ US 8,739,446 B2, iss. June 3, 2014 (Ex. 1009, “Sullivan”).

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) when available, evidence such as commercial success, long felt but unsolved needs, and failure of others.⁵ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”). The Court in *Graham* explained that these factual inquiries promote “uniformity and definiteness,” for “[w]hat is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context.” 383 U.S. at 18.

The Supreme Court made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To support this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention “would have selected and combined those prior art elements in the normal course of

⁵ Patent Owner does not direct us to any objective evidence of non-obviousness in its Preliminary Response.

research and development to yield the claimed invention.” *Id.*; *see also Orexo AB v. Actavis Elizabeth LLC*, 903 F.3d 1265, 1273 (Fed. Cir. 2018) (“The question is not whether the various references separately taught components of the ’330 Patent formulation, but whether the prior art suggested the selection and combination achieved by the ’330 inventors.”).

In determining whether there would have been a motivation to combine prior art references to arrive at the claimed invention, it is insufficient to simply conclude the combination would have been obvious without identifying any reason *why* a person of skill in the art would have made the combination. *Metalcraft of Mayville, Inc. v. Toro Co.*, 848 F.3d 1358, 1366 (Fed. Cir. 2017). As a factfinder, we also must be aware “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR*, 550 U.S. at 421.

Applying these general principles, we consider the evidence and arguments of the parties.

B. Level of Ordinary Skill in the Art

The level of skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). “This reference point prevents . . . factfinders from using their own insight or, worse yet, hindsight, to gauge obviousness.” *Id.*

Factors pertinent to a determination of the level of ordinary skill in the art include: (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of workers active in the field. *Env’t Designs, Ltd. v.*

Union Oil Co., 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). In determining a level of ordinary skill, we also may look to the prior art, which may reflect an appropriate skill level. *Okajima*, 261 F.3d at 1355.

Petitioner asserts that a person of ordinary skill in the art at the relevant times would have had “a bachelor’s degree in mechanical engineering, or an equivalent, and two years of professional experience relating to firearms and munitions.” Pet. 19–20 (citing Ex. 1003 ¶ 21). Petitioner also states that “[l]ack of professional experience can be remedied by additional education, and vice versa.” *Id.* at 20. Patent Owner does not dispute Petitioner’s proposed level of ordinary skill. Prelim. Resp. 13.

For purposes of this Decision, we accept Petitioner’s contention, which we find to be consistent with the scope and content of the ’045 patent and the asserted prior art.

C. Claim Construction

We construe each claim “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b).” 37 C.F.R. § 42.100(b) (2019). Under this standard, claim terms are generally 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 v. AWH*

Corp., 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc) (“We have frequently stated that the words of a claim ‘are generally given their ordinary and customary meaning.’” (citations omitted)).

Petitioner “submits that for purposes of this proceeding all terms have their ordinary meaning.” Pet. 20. “Patent Owner agrees that all claim terms of the ’045 patent should have their ordinary and customary meaning.” Prelim Resp. 13.

Claims are construed only to the extent necessary to resolve a dispute. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999). As explained below, we find the issue of whether the asserted references teach or suggest “four stacks of cartridges arranged directly adjoining one [an]other” to be dispositive. To the extent the parties dispute the meaning of this claim language, we address those arguments below in our analysis of whether the limitation is taught or suggested as asserted by Petitioner.

D. Differences Between the Claimed Invention and the Prior Art

As noted above, the challenged claims include two independent claims (claims 1 and 19), which Petitioner contends are unpatentable under 35 U.S.C. § 103(a) in view of Gromov and Musgrave (Ground 1). Pet. 21–60, 89–96. Additionally, for claim 19, Petitioner contends that, “[t]o the extent that Patent Owner argues the combination of Gromov and Musgrave do not disclose limitations 19.8-19.12.1, Petitioner establishes that the combination of Gromov, Musgrave, and Sullivan renders claim 19 obvious” (Ground 3). *Id.* at 101. Petitioner’s contentions, however, rely *only* on Gromov to disclose “the first region . . . accommodating four stacks of cartridges arranged directly adjoining one [another],” which both

independent claims recite (i.e., limitations 1.9.1 and 19.12.2, as identified by Petitioner in the Petition). *See id.* at 49–51, 96, 107.

Patent Owner argues that, because Gromov does not disclose “four stacks of cartridges arranged directly adjoining one another,” the Petition is deficient and should be dismissed. Prelim. Resp. 39–40.

Having studied the evidence and arguments presented by both parties, we find the issue of whether Gromov discloses “four stacks of cartridges arranged directly adjoining one another” to be dispositive. As a result, our discussion below is focused on this issue. First, we provide a brief overview of Gromov. Second, we evaluate whether Petitioner establishes sufficiently for this stage of the proceeding that Gromov discloses “four stacks of cartridges arranged directly adjoining one another.” For the following reasons, we find Petitioner has failed to do so.

1. Gromov (Ex. 1006)

Gromov relates to multiple-row high-capacity box magazines to be used in automatic or semi-automatic firearms. Ex. 1006, 3. Figure 2, reproduced below, is an illustrative example of the magazine Gromov discloses.

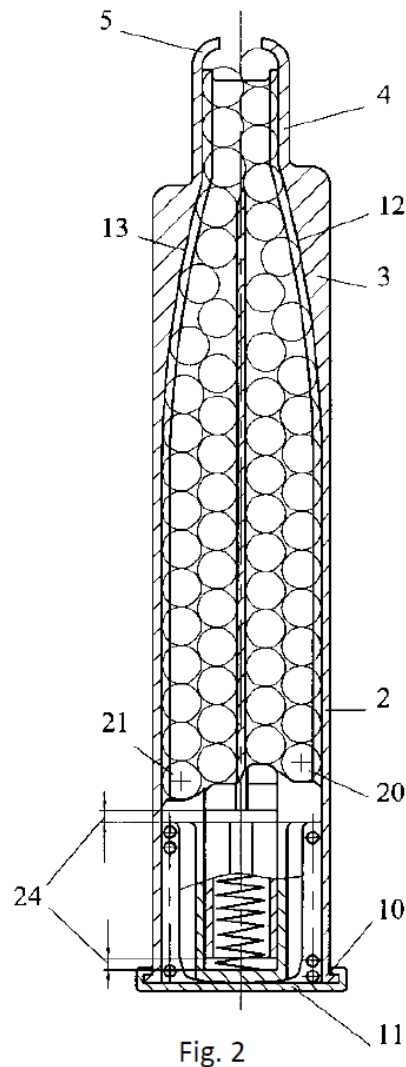


Figure 2 “is a longitudinal cross section of a full multiple-row magazine with variable number of rows, seen from the rear.” Ex. 1006, 5. According to Gromov’s disclosure, the point of novelty is the transition (i.e., 12 and 13) between the wide portion of the magazine housing and the narrow portion of the magazine housing. *Id.* at 4.

Gromov discloses that rearranging the outer layers of cartridges of the two-row streams from the wide portion of the housing of the magazine to its narrow portion, allows the cartridges to enter the rearrangement zone with minimal increase in resistance and friction, which minimizes the length of

the rearrangement zone. Ex. 1006, 4. According to Gromov's disclosure, as the cartridges move into the rearrangement zone, they are directed by partitions 8 and 9, and by helical surfaces 12 and 13, alternately into right and left channels of the housing, arranging in zig zag fashion. *Id.* at 6. Gromov's design thus rearranges two double-row streams with a staggered arrangement into two streams with a zig zag arrangement that exits from the rearrangement zone into a double-row stream with a staggered arrangement. *Id.* This design allows an increase in the capacity of the magazine, without an increase in size, while also increasing operational reliability of the magazine. *Id.*

2. *Petitioner Has Not Shown Sufficiently That Gromov Discloses Four Stacks of Cartridges Arranged Directly Adjoining One Another*

Citing Figure 2 in Gromov, Petitioner contends that it "depicts the wide portion (*first region*) having *four stacks of cartridges* and throat 4 (*second region*) having *two stacks of cartridges* that are *arranged directly adjoining one [an]other*." Pet. 49 (citing Ex. 1003 ¶ 103⁶). Petitioner provides no other basis to support a finding that the prior art discloses "the first region . . . accommodating four stacks of cartridges arranged directly adjoining one [an]other," which both independent claims recite (i.e., limitations 1.9.1 and 19.12.2, as identified by Petitioner in the Petition). *See id.* at 49–51, 96, 107.

⁶ Paragraph 103 of the Declaration of Stephen Batzer, Ph.D., cited by Petitioner adds no additional evidentiary support because it simply repeats what is stated in the Petition without any further explanation. We note that Dr. Batzer provides no basis for the cited conclusory statement. In particular, Dr. Batzer completely fails to address the description Gromov provides in the specification about what Figure 2 illustrates and how that description supports (or can even be squared with) the conclusion reached.

Patent Owner counters that Petitioner's reliance on Figure 2 in Gromov to show four stacks of cartridges directly adjoining one another is misplaced because "Gromov specifically states that the four stacks of cartridges in the quad stack region are arranged in two double stacks of cartridges." Prelim. Resp. 40. Patent Owner is correct.

Gromov states,

On the rear internal surface of the wide portion of the housing 1 and the rearrangement zone 3 there is a separating partition 8, which forms together with the walls of the housing 1 and a detachable separating partition 9 two double-row channels, with the cartridges arranged in staggered fashion in the wide portion of the housing of the magazine and in zig zag fashion in the rearrangement zone.

Ex. 1006, 5. Gromov explains that in the rearrangement zone 3, the cartridges are rearranged "from two double-row streams into a single double-row stream." *Id.* Thus, when Figure 2 is viewed in light of the description Gromov provides, it is clear that Figure 2 shows "two double-row channels" that are separated by a partition, rather than "four stacks of cartridges arranged directly adjoining one [an]other."

Consistent with the plain and customary meaning of "directly adjoining," the '045 patent makes clear that a skilled artisan would have understood that the "four stacks of cartridges arranged directly adjoining one another" limitation requires the four stacks of cartridges to be arranged to "directly touch each other, at least in partial areas of their shell surfaces."

Ex. 1001, 3:34–36. The '045 patent also makes clear that directly adjoining the four stacks of cartridges is an important part of the claimed invention because a partition wall will impair the process for directing the cartridges through the magazine to present a single cartridge to magazine lips (e.g., 5 in

Figure 2 above). *Id.* at 3:36–54. The '045 patent states, “[a] cartridge magazine that includes a partition wall does not provide suitable repetitive accuracy of a movement process for the cartridges contained therein in their movement in the direction of the magazine lips.” *Id.* at 3:54–57.

Petitioner fails to provide a basis to determine the four stacks of cartridges in the first region of Gromov’s magazine are “directly adjoining one [an]other.” Petitioner offers no evidence or explanation for why a skilled artisan would have considered the cartridges in the separate channels to be directly adjoining; nor does Petitioner suggest it would have been obvious for a skilled artisan to modify Gromov’s configuration to have all four of the stacked cartridges in the first region to be directly adjoining. Therefore, the Petition is deficient because it has not shown that the prior art discloses or suggests each and every limitation of either independent claim 1 or 19.

Accordingly, we determine Petitioner has not established a reasonable likelihood of prevailing in establishing that any of the challenged claims would have been obvious.

III. CONCLUSION

Our review of the Petition under 35 U.S.C. § 314 is not to determine whether an individual asserted fact is indisputable or whether a preponderance of the evidence supports Petitioner. Our review is to determine whether the totality of the information presented in the Petition and Preliminary Response shows that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims in the Petition.

For the above reasons, we determine Petitioner has not established a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim of the '045 patent. Therefore, we deny institution of review on the merits. *See* 35 U.S.C. § 314(a).

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), institution of *inter partes* review of the '045 patent is denied.

IPR2022-00083
Patent 10,866,045 B2

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