UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NESPRESSO USA, INC.
Petitioner

v.

K-FEE SYSTEM GMBH
Patent Owner

IPR2024-00257

U.S. Patent No. 11,548,722

REPLY DECLARATION OF MICHAEL JOBIN

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I. INTRODUCTION

1. I previously submitted a declaration in this proceeding on behalf of Nespresso. (Ex. 1003). I understand that Patent Owner, K-fee System GmbH ("K-fee"), submitted a declaration from Dov Glucksman in response to my previous declaration. (Ex. 2020). I stand by the opinions set forth in my previous declaration, all of which explain why the claims of U.S. Patent No. 11,548,722 (the "'722 patent") would have been obvious in view of the prior art references and state of the art described therein. I submit this limited rebuttal declaration to address certain opinions Mr. Glucksman provided in his declaration.

II. K-FEE & MR. GLUCKSMAN PROPOSE A NEW LEVEL OF ORDINARY SKILL IN THE ART THAT IS CONTRARY TO THE LEVEL K-FEE PREVIOUSLY PROPOSED IN OTHER RELATED PROCEEDINGS

2. This proceeding is but one of a number of proceedings challenging the patentability of various United States patents in the '722 patent family. In previous proceedings, K-fee consistently offered the same level of ordinary skill in the art, which included a bachelor's-level engineering degree plus five years of relevant experience in designing mechanical beverage systems or similar products:

> A person having ordinary skill in the art ("POSITA") . . . would have a bachelor's degree in engineering plus five years of experience in design of mechanical beverage systems, or similar products, as well as experience with

> sensors for recognizing an identifier. Additional education might substitute for some of the experience, and substantial experience might substitute for some of the educational background.

(IPR2022-01574, Paper 17 at 9; IPR2023-00502, Paper 6 at 13; IPR2023-00485, Paper 6 at 18). I understand that the Patent Trial and Appeal Board ("Board") previously rejected the last sentence of K-fee's proposed level of ordinary skill as "too vague." (IPR2022-01574, Final Written Decision, Paper 29 at 19).

3. K-fee has abandoned its previous level of ordinary skill in the art and now proposes the following:

> The level of skill should be at least 5 years of technical experience, with at least 1 year of experience in designing, testing, and/or evaluating single-serve coffee/ beverage makers, with working knowledge of identifying means such as barcodes, sensors, etc.

(PO Response, Paper 16 at 4 (citing Ex. 2020 at ¶¶ 43-48). This new proposed level modifies K-fee's previous level of ordinary skill in three notable ways: (1) it removes K-fee's proposed bachelor's degree in engineering and, in fact, does not require any particular educational level whatsoever; (2) it no longer requires 5 years of experience in designing mechanical beverage systems (and similar products), just 5

years of some type of undefined "technical experience;" and (3) it adds in a new requirement of at least 1 year of experience specific to single-serve coffee/beverage makers. I disagree that K-fee's new level of ordinary skill in the art is appropriate.

4. I understand from counsel that several factors may be relevant to determining the level of ordinary skill in the art, including (1) the educational level of the inventor, (2) the types of problems encountered in the art, (3) prior art solutions to those problems, (4) rapidity with which innovations are made, (5) the sophistication of the technology, and (6) the educational level of active workers in the field. I further understand from counsel that these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.

5. K-fee relies on Mr. Glucksman to support its level of ordinary skill in the art. I disagree with Mr. Glucksman with respect to each of the reasons he sets forth.

6. Mr. Glucksman first suggests that Marc Krüger, the named inventor of the '722 patent, "held no engineering degree at the time of his invention and had less than a year of traditional working experience in design of mechanical beverage systems or similar products." (Ex. 2020 at ¶ 44). Mr. Glucksman therefore concludes that no educational level is required in assessing the level of skill in the art. I disagree. Although Mr. Glucksman does not provide evidence of Mr. Krüger's background, he explains that Mr. Krüger has no engineering degree and less than a year experience working with mechanical beverage systems or similar products. (*Id*.

(citing Ex. 2025 at 19:18-20, 24:5-7). Even if one were to assume that Mr. Krüger was allegedly able to conceive of the combination ultimately claimed in the ’722 patent, he would have needed to rely on others with engineering degrees and relevant experience to actually make and carry out the invention. It is typical for these types of high-level concepts to be developed by product engineering groups, who in turn create and implement the design and manufacture in a manner that creates end-use products that are safe for consumers.

7. Moreover, in my opinion, a person lacking an engineering degree and having less than 5 years of experience with beverage systems or similar products would not understand or appreciate the types of problems encountered in the art, prior art solutions to those problems, the rapidity with which innovations are made in the art, or the relative sophistication of the technology. Accordingly, Mr. Glucksman has elevated Krüger’s education level above many of the other factors that weigh against the lower level of ordinary skill K-fee now proposes.

8. Mr. Glucksman next contends that “the two most accomplished developers of single-serve coffee makers in my company had no engineering degrees.” (Ex. 2020 at ¶ 45). But Mr. Glucksman does not identify either of these individuals and fails to explain their role in the context of the larger product design group. The notion that a company would design a single-serve beverage system without significant input from a mechanical engineer or designer is not typical in my experience. Indeed, I

note that Mr. Glucksman himself has a dual bachelor's degree in mechanical and nuclear engineering and a master's degree in aeronautical engineering and refers to his own "team" when describing who developed his company's products. (*Id*. at ¶ 7).

9. Finally, Mr. Glucksman suggests that developers who have "a passion for coffee" have "professional background and experiences [that] vary[.]" (*Id*. at ¶ 45). But again, Mr. Glucksman does not identify who any of those developers are or explain how or why those various professional backgrounds and experiences counsel against requiring the level of skill in the art adopted by the Board in its institution decision. In my opinion, a person's "passion for coffee" does not inform the level of ordinary skill in the art. One may be passionate about coffee with no working knowledge about how to design a coffee maker; such a person would not qualify as a person of ordinary skill in the art.

10. I also disagree with Mr. Glucksman's requirement that a person of ordinary skill in the art must have at least 1 year of experience with single-serve coffee or beverage makers. Many standard features of beverage makers are relevant to the design of single-serve coffee/beverage makers and capsules. For example, pumps, pump controls, heaters, temperature controls, valves, electronics, wiring, fluid reservoirs, and consumer safety features used in beverage machines—to name a few—are also relevant to the design of single-serve beverage machines.

Additionally, the identifiers disclosed in the ’722 patent were already known in the prior art separate and apart from single-serve coffee capsules.

11. Accordingly, I disagree with Mr. Glucksman and K-fee’s proposed level of ordinary skill in the art. I have seen nothing presented by K-fee or Mr. Glucksman in this proceeding that justifies the level of ordinary skill they now propose or a departure from the level of ordinary skill in the art the Board adopted in its institution decision.

12. Notwithstanding anything above, I have considered the prior art cited and opinions provided in my original declaration (Ex. 1003) in view of K-fee’s new proposed level of ordinary skill in the art, and, like Mr. Glucksman, my opinions would not change and would apply equally should the Board adopt this new proposed level of skill. (Ex. 2020 at ¶ 47). Additionally, I would qualify as a person of ordinary skill in the art under K-fee’s new proposal because I have the relevant technical experience, including with respect to designing single-serve beverage makers (such as wine, water, beer, chilled alcohol, and frozen drink dispensing machines) and product identifiers (such as barcodes and optical sensors) and based on my extensive experience testing and evaluating single-serve coffee capsules and machines.

III. JARISCH AND JARISCH 929 BOTH ENABLE A PERSON OF ORDINARY SKILL IN THE ART TO MAKE AND USE A CAPSULE HAVING A PRINTED OPTICALLY DETECTABLE IDENTIFIER ON THE BOTTOM OF THE FLANGE

13. According to Mr. Glucksman, "Jarisch 929 would not have taught a POSITA how to make and use Patent Owner's invention without undue experimentation." (*Id*. at ¶ 114). In particular, Mr. Glucksman contends that the embodiments in Jarisch 929 describing the configuration in which the identifier is located on the bottom of the flange do not work. (Ex. 2020 at ¶¶ 113-115, 118, 127-131). I disagree.

14. I note first that Jarisch 929 teaches in detail how to construct a high-contrast code support. (Ex. 1006 at [0090]-[0110]). For example, Jarisch 929 comprehensively describes how to implement a functional code support reader in the context of the combination of Yoakim and Jarisch 929 using high-intensity mirrored/reflecting surfaces and low-intensity diffusing/absorbing surfaces. (*Id*. at [0107]-[0108]). Similar disclosures can be found in Jarisch.

15. I also note that the Patent Office granted U.S. Patent No. 10,800,600 (the "Jarisch '600 patent"), which is the patent that issued from Jarisch. Claim 1 recites a capsule comprising a container having a flange-like rim and "a code adapted for being identified or read by an external reader, the code is arranged on a bottom of the flange-like rim, which is opposed to the lid, to be read while the capsule is rotated around an axis[.]" (Ex. 1069 at claim 1). Similarly, I note that the Patent Office granted U.S. Patent No. 11,148,876 (the "Jarisch '876 patent"), which I have been

informed is a patent that issued from the Jarisch 929 family. Claim 1 recites a capsule comprising a container with "at least one support comprising a section on which a plurality of sequences of symbols is represented so that each symbol is sequentially readable, by a reading arrangement of an external device, while the capsule is rotated along an axis of rotation" wherein the container comprises "a cup-shaped body having a flange-like rim and a lid connected to the body, wherein the support is present on a bottom of the rim, and the bottom of the rim is opposed to the lid." (Ex. 1073 at claim 1). I understand that before the Patent Office grants a patent, it has made a determination that the specification sufficiently explains to a person of ordinary skill in the art how to make and use the claimed invention without undue experimentation. Accordingly, by granting the Jarisch '600 and Jarisch '876 patents, the Patent Office has already determined that the disclosure in Jarisch and Jarisch 929 are sufficient to teach a person of ordinary skill in the art how to make and use a capsule with an identifier located on the bottom of the flange that can be identified or read by an external reader. I agree with the Patent Office's assessment on that point.

16. Additionally, the disclosure in Jarisch 929 is much more detailed than the '722 patent on this point. Indeed, the '722 patent lacks any meaningful description of how to implement a system in which the capsule identifier is provided on the bottom of the flange other than noting that the detector may be placed in the media chute. (Ex.

1001 at 8:64-66). In my opinion, this confirms that at the time of the ’722 patent, a person of ordinary skill in the art, particularly in view of the detailed teachings of Jarisch and Jarisch 929, would have known how to make and use the claimed capsules.

17. Mr. Glucksman’s sole basis for arguing that a person of ordinary skill in the art could not make and use the claimed capsules without undue experimentation is a statement set forth in unrelated U.S. Patent No. 10,294,020 (the “’020 patent”), which describes Jarisch 929 as follows:

> Such invention enables to make a large volume of coded information available, such as about 100 bits of redundant or non-redundant information, without using barcode readers having moving parts like a scanning element which may raise severe concerns in terms of reliability. Another advantage is also to be able to read the code support by rotating the capsule while the capsule is in place, in a ready to brew position in the rotary capsule holder. However, one disadvantage lies in that those reading conditions remain specifically difficult for different reasons, such as because the incoming and outgoing rays of light must traverse the capsule holder

> when the capsule is held by the capsule holder, causing the loss of a great part of energy and/or because the light rays may incur significant angular deviations due to particular mechanical constraints born by the rotating assembly of the machine and possibly coming from different origins (e.g., vibrations, wearing, unbalanced mass distribution, etc.). Furthermore, it is not suitable to compensate the loss of reflectivity by improving the performance of the light emitting and sensing devices of the machine as it would make the beverage preparation machine too expensive.

(Ex. 2021 at 2:26-47). Mr. Glucksman misreads this statement to conclude that Jarisch 929 does not enable a person of ordinary skill in the art to make and use the capsules claimed in the ’722 patent without undue experimentation such that there is no reasonable expectation of success in combining Yoakim and Jarisch 929.

18. As the ’020 patent expressly states, an “advantage” of the Jarisch 929 system is that it is “able to read the code support by rotating the capsule while the capsule is in place, in a ready to brew position in the rotary capsule holder.” (Ex. 2021 at 2:31-33). It further explains that a “disadvantage” in this configuration is that the energy of the incoming and outgoing light rays is reduced because the light’s pathway must traverse the capsule holder. (*Id*. at 2:33-43). Importantly, this

statement does not convey to a person of ordinary skill in the art that Jarisch 929 does not work. It merely confirms a physical attribute of the Jarisch 929 system that a person of ordinary skill in the art would have understood: that some portion of light-signal may be lost as it is transmitted through a medium. But even so, a person of ordinary skill in the art, based on the teachings of Jarisch and Jarisch 929, would have been able to compensate for any such lost signal. This is confirmed by the fact that the Patent Office granted the Jarisch ’600 and Jarisch ’876 patents, which claim a machine-readable capsule having a product identifier located on the bottom of the flange.

19. Finally, none of the “problems” Mr. Glucksman identifies to allege that there was no reasonable expectation of success in combining the Yoakim and Jarisch 929 references—namely, vibrations, mass balancing of the centrifugation system, distinguishing between light-reflecting and light-absorbing signals, mirroring and index-of-refraction matching, complexity of an optics assembly (Ex. 2020 at ¶¶ 128-131)—are addressed in the ’722 patent. This is not surprising because all of these “problems” were well understood by a person of ordinary skill in the art by the time of the ’722 patent, as were the solutions on how to address them.

20. Accordingly, I disagree that a person of ordinary skill in the art would not have had a reasonable expectation of success of arriving at the capsules claimed in the ’722 patent based on the combination of Yoakim and Jarisch 929. Jarisch 929

provides significantly more disclosure than the ’722 patent on how to make and use a capsule having an identifier code on the bottom of the flange that is machine-readable when rotated within the confines of the brewing machine.

IV. SUPPLEMENTATION

21. This declaration is based on my present assessment of material and information currently available to me.

22. I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true. Further, these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent.

Dated: December 23, 2024

Michael Jobin