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UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

DECENT ESPRESSO INTERNATIONAL LTD.,
Petitioner,

v.

DUVALL ESPRESSO IP ENFORCEMENT, LLC,
Patent Owner

Case IPR2025-00747

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT 11,957,271
CHALLENGING CLAIMS 1-10**

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NOTE REGARDING CITATIONS: Exhibits and page numbers are cited herein in the form Ex[number]-[page(s)] or Ex[number], for example, Ex1001-9-11 means Exhibit 1001 pages 9-11. and Ex1008 means Exhibit 1008.

I. Introduction

Decent Espresso International Ltd. (“Decent” or “Petitioner”) respectfully requests *inter partes* review of claims 1-10 of U.S. Patent No. 11,957,271 (the “271 patent”) (Ex1001) pursuant to 35 U.S.C. §§ 311-319 and 37 C.F.R. § 42.1 *et seq.*

This is the third petition for review of a patent in this patent family. Other patents in the same family are at issue in IPR2024-01483 and IPR2024-01492.

All of the concepts claimed in the 271 patent were well-known and included in a large variety of prior art, including both numerous machines that were sold into the market (not available as prior art in IPRs) and numerous patents and publications before the Effective Filing Date. Expert witness Tinkler worked for Keurig and collaborated with numerous coffee machine companies during the period from 2005-2015, surrounding the filing dates of the 271 patent’s earliest provisional and non-provisional applications, in 2012 and 2013. Ex1002-6-7. During that time, expert Tinkler designed and directed the design of over 60 coffee machines and collaborated on many others. *Id.*

Expert Tinkler confirms that numerous control systems of the type claimed in the 271 patent were known by August 2012. Ex1002-33.

The undersigned notes that at least five different primary prior art publications and patents, along with several actual machines, that anticipate and/or render obvious various claims of the 271 patent were located, but due to the prohibition against using machines as prior art along with the word count limitations for petitions, Petitioner provides fewer primary references in this petition – each and all of which clearly evidence unpatentability.

The 271 patent exists in a crowded technology field, and the submitted prior art patents and publications provide compelling evidence of unpatentability.

II. Certification of Grounds for Standing

Petitioner certifies pursuant to Rule 42.104(a) that the patent for which review is sought is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

III. Overview of Challenge and Relief Requested

Pursuant to Rules 42.22(a)(1) and 42.104(b)(1)-(2), Petitioner challenges claims 1-10 of the ‘271 Patent.

A. Prior Art Patents and Printed Publications

The application for the ‘271 patent claims priority to a provisional application that was filed before the America Invents Act (“AIA”) and a non-provisional application that was filed after the AIA. As discussed further, below §VIII.A, the ‘271 patent contains a priority claim to a patent application in which at least one claim was not entitled to claim priority to the pre-AIA filing; thus, AIA §3(n)(1) mandates treatment of all claims of the ‘271 patent under the AIA first-to-file rules, regardless of whether those claims are entitled to the priority date of the pre-AIA provisional application.

The following references are pertinent to the grounds of unpatentability:

1. U.S. Patent No. 8,973,487 B2 (Ex1003) (collectively with Ex1004, “Startz”), filed May 21, 2012, issued March 10, 2015, is prior art under at least 35 U.S.C. §102(a) (and 35 U.S.C. §102(e) (pre-AIA)).

2. U.S. Patent Application Publication No. 2012/0291634A1 (Ex1004) (collectively with Ex1003, “Startz”), filed May 21, 2012, published Nov. 22, 2012, is prior art under at least 35 U.S.C. §102(a) (and 35 U.S.C. §102(e) (pre-AIA)).

3. U.S. Patent Application Publication No. 2011/0097454A1 (“Coccia”) (Ex1006), published Apr. 28, 2011, filed Oct. 21, 2010, is prior art under at least 35 U.S.C. §102(a).

4. European Patent Publication EP 2612577A1 (“Buttiker”) (Ex1009,

Ex1010 (translation)), published July 10, 2013, filed January 6, 2012, is prior art under at least 35 U.S.C. §102(a). The translation of this publication, Ex1010, has been certified by sworn declaration, Ex1007.

5. International Publication No. WO1991/007898A1 (Ex1005) (“Giuliano”), published June 13, 1991, is prior art under at least 35 U.S.C. §102(a) (and 35 U.S.C. §102(a) or (b) (pre-AIA)).

6. International Publication No. WO2011/151703A2 (Ex1008) (“Majer”), published Dec. 8, 2011, is prior art under at least 35 U.S.C. §102(a) (and 35 U.S.C. §102(a) or (b) (pre-AIA)).

7. International Publication No. WO2011/158131 (Ex1011) (“Porzio”), published Dec. 22, 2011, is prior art under at least 35 U.S.C. §102(a) (and 35 U.S.C. §102(a) or (b) (pre-AIA)).

B. Grounds for Challenge

Petitioner requests cancellation of claims 1-10 of the '271 patent as unpatentable under 35 U.S.C. §102 and §103. This Petition, supported by the Declaration of Ian Tinkler (Ex1002), demonstrates a reasonable likelihood that Petitioner will prevail with respect to cancellation of at least one challenged claim and that each challenged claim is not patentable. See 35 U.S.C. §314(a).

The grounds for challenge are:

<u>Ground #</u>	<u>References for Grounds</u>	<u>Challenged Claims</u>	<u>Statute</u>
1.	Startz	1-4	35 U.S.C. §102
2.	Startz in view one or more of the knowledge of a POSA, Majer, and/or Porzio	1-4	35 U.S.C. §103
3.	Startz in view one or more of the knowledge of a POSA, Majer, Porzio, and/or Buttiker	5-6	35 U.S.C. §103
4.	Coccia	1, 7	35 U.S.C. §102
5.	Coccia in view one or more of the knowledge of a POSA, Majer, and/or Porzio	1, 7	35 U.S.C. §103
6.	Coccia in view one or more of the knowledge of a POSA, Majer, Porzio, Giuliano, and/or Buttiker	8	35 U.S.C. §103
7.	Coccia in view of one or more of the knowledge of a POSA, Giuliano, Buttiker, Majer and/or Porzio	9-10	35 U.S.C. §103

IV. Discretion

The factors set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) weigh heavily against discretionarily denying institution in favor of parallel district court litigation.

Fintiv Factor 1: The district court stayed the parallel district court proceedings pending a decision by the Board in IPR2024-01483 and IPR2024-01492. IPR2024-01483 and IPR2024-01492 involve two other patents in the same family as the 271 patent.

Fintiv Factor 2: No trial date is currently set in the district court litigation, because the case is stayed pending decisions in the related IPR proceedings identified above.

Fintiv Factor 3: The district court proceedings are in the early stages, since the case was stayed early on. The plaintiff in those proceedings sought to amend the complaint to add the 271 patent shortly before the proceedings were stayed. Thus, very little investment has been made in the district court proceedings.

Fintiv Factor 4: Pursuant to *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020), the Board established that entering a stipulation limiting the invalidity grounds the petitioner could pursue in district court would weigh strongly against denial of institution. Petitioner is filing a *Sotera* stipulation concurrently with the present IPR Petition.

Fintiv Factor 5: While the parties are the same or similar between this proceeding and the parallel litigation, this factor is neutral, because the district court proceedings are currently stayed.

Fintiv Factor 6: The prior art provides compelling evidence of unpatentability of the 271 patent claims. Many of the claims are anticipated by prior art and all claims are clearly obvious in view of prior art as understood by a POSA. Thus, the Board should grant review.

V. Overview: ‘271 Patent

A. Brief Technology Description

The ‘271 patent relates to brewing coffee in an electro-mechanical device.

B. The Alleged Goals and Problems

The ’271 patent acknowledges well-known problems/goals:

- a. “[L]ack of independent variable control makes the optimization and modification of infused beverages difficult.”
- b. “There is an apparent need for a brewing system that affords independent modulation of infusion pressure and flow rate...”
- c. “[V]arying exiting flow rate disadvantageously creates inconsistent beverage output, which is costly for many retailers of beverages. The inconsistencies also are problematic for retailers and consumers, alike, as both the taste of the beverage and the amount of the beverage may change at each brewing cycle.”
- d. It is “highly difficult to duplicate the flavor of an extraction even if the same brew formula of infusion pressure and temperature with respect to time are used.”
- e. “Therefore, a beverage brewing system that affords precise, accurate and dynamic temperature control would enable optimization of beverage flavor and is needed.”

- f. “As previously explained, there is an acute need for a brewing system that affords the brewer independent, dynamic variation of brewing variables of temperature, pressure and flow rate during the production of infused beverages.”
- g. “Furthermore, there is a need for a brewing system that mitigates and/or eliminates the impact of external factors such as solute particle size variations and solute compaction on the beverage flavor.”

The claims of the ‘271 patent are directed to one or more of the goals of precise, accurate and dynamic temperature control; independent modulation of flow rate; and consistent exiting flow rate, based on the limitations set forth in the claims. Ex1002-15-16. As expert Mr. Tinkler confirms, these problems were well-known in the art, with numerous devices on the market seeking to solve them. Ex1002-33.

C. The 271 Patent

The 271 patent claims a device and system for brewing infused beverages. Various beverages, including teas and coffees, may be infused by passing a solvent (heated water) over a solute (tea or coffee). The word “coffee” does not appear in the 271 Patent. However, the technology and terminology used in the patent (e.g., pressure, flow, temperature, steam for frothing, etc.), the infringement allegations

regarding espresso machines, and FIG. 4 (similar to an espresso machine group head) demonstrate that at least one object of 271 Patent is to describe coffee-making devices. Ex1002-13.

The specification describes a system, illustrated in FIG. 2, in which two solvents (201, 202) are pumped through two conduits by two pumps (211, 212) through at least one thermal modulator (221, 222). The conduits are joined to form a resulting conduit (203) for mixing the solvents. The mixed solvents are pumped into a brewing chamber (230) where they encounter a solute (ground coffee) to create a solution (espresso coffee) that is discharged into a receptacle (250).

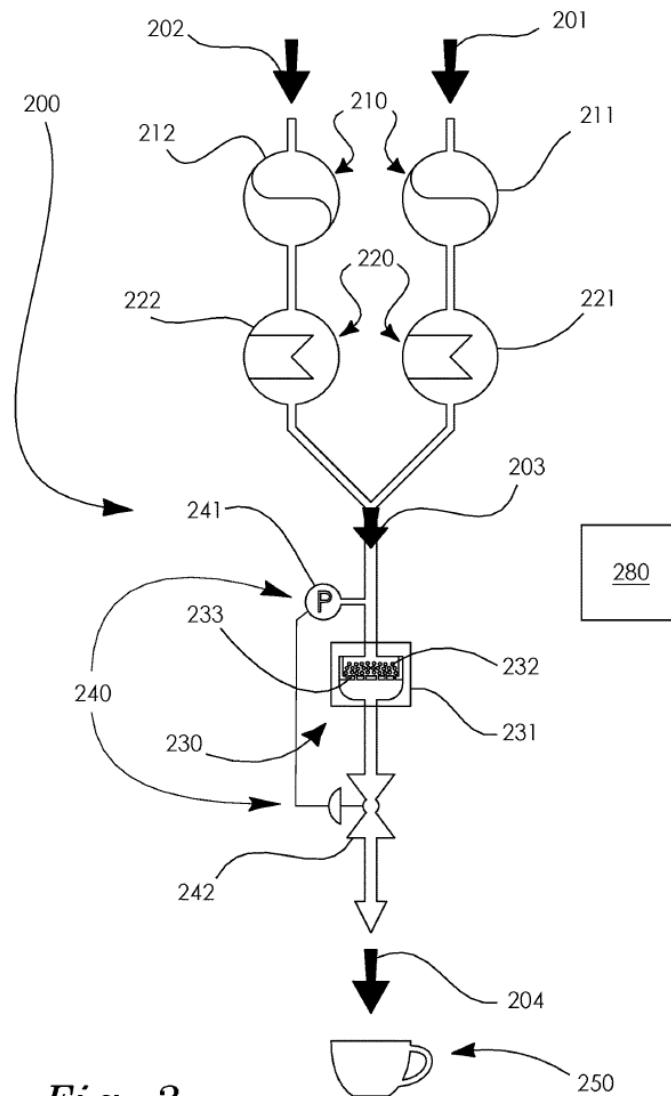


Fig. 2

Ex1001; Ex1002-13-14.

The 271 Patent uses an electronic controller (280) to modify flow rate,

temperature, and/or pressure, by receiving data from flow meters, pressure sensors, and/or temperature measuring devices, then using that data to control/modulate the pumps and/or thermal modulators to affect temperature, flow, and/or pressure.

Ex1002-15.

D. The Alleged Invention

The '271 patent claims purportedly novel concepts: (1) inducing the flow of two solvents in different conduits, where one or both are heated; (2) combining the solvents upstream of the brewing chamber; and (3) the use of two pumps and two heaters in a brewing method. Ex1001, Claims 1-10.

These claimed concepts were well-known and included in a large variety of prior art, including both numerous machines that were sold (unavailable as prior art in IPRs) and numerous patents and publications before the Effective Filing Date. Expert Tinkler worked for Keurig and collaborated with numerous coffee machine companies during the period from 2005-2015, surrounding the potential effective filing dates in 2012 and 2013. Ex1002-5-7. During that time, expert Tinkler designed and directed the design of over 60 coffee machines and collaborated on many others. *Id.*

Expert Tinkler confirms that numerous systems performing methods of the type claimed in the 271 patent were known by August 2012. Ex1002-33.

The undersigned notes that at least five different primary publications/patents and several physical machines, that anticipate or render obvious claims of the 271 patent were located, but due to the prohibition against using physical machines and the word count limitations for petitions, it was only possible to list a small set of primary references in this petition – all and each of which clearly evidence that the claims of the 271 patent are unpatentable.

The 271 patent exists in a crowded technology field, and the prior art is compelling evidence of unpatentability.

E. Summary of Prosecution History

The ‘271 patent issued from Application No. 18/109,177 (Ex1013). The original claims claimed the same subject matter as the issued claims. Ex1013-51-53. The first office action was a notice of allowance. Ex1013-90-97.

VI. Claim Construction

In an *inter partes* review, a patent claim “shall be construed using the same claim construction standard that would be used to construe the claim in a civil action...” 37 C.F.R. § 42.100(b).

A. “Conduit”

The patent applicant acted as lexicographer: “The term ‘conduit’ is defined

as any channel through which something is conveyed.” Ex1001, 7:42-43.

“Conduit” should be so construed.

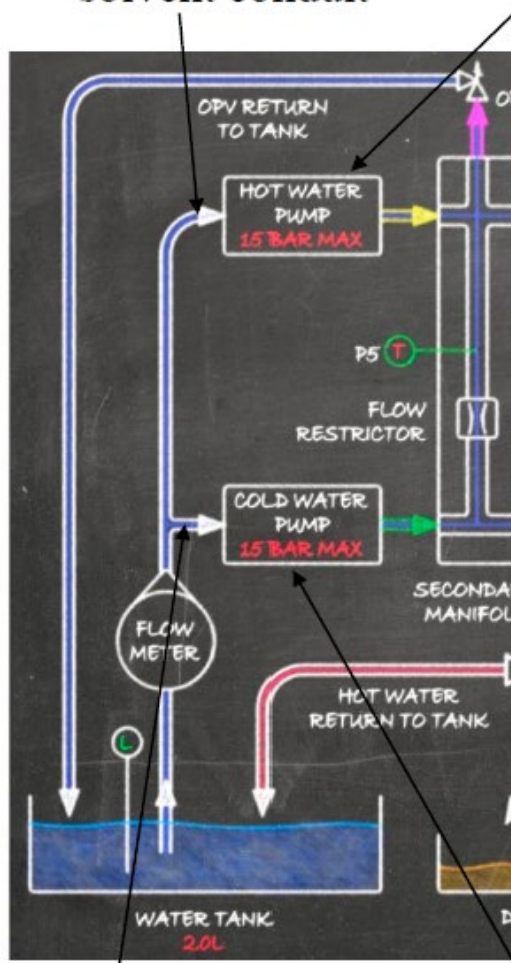
B. “Second solvent”

The claims refer to “a solvent” and “second solvent.” Patent Owner’s position asserted in the district court should be adopted, so that Patent Owner is held to consistent constructions in the district court and here.¹

Patent Owner’s infringement contentions state, “As set forth...within Exhibit C..., Plaintiff asserts claims 1-10 the 271 Patent [sic] against the infringing Accused Products.” Ex1015-2. This Exhibit C shows a branching pipe carrying water in both branches, labeled “A first solvent in a first solvent conduit at first temperature” and “A second solvent in a second solvent conduit separated from first solvent conduit.” Ex1016-1. An excerpt is reproduced below:

¹ Petitioner reserves the right to seek different claim constructions in district court, but relies upon Patent Owner’s construction for this petition.

1) A second solvent in a second solvent conduit separated from first solvent conduit



A first solvent in a first solvent conduit at first temperature Indu first cold

Ex1016-1. As demonstrated, Patent Owner necessarily construes both “a first solvent” and “a second solvent” to mean the same solvent, but in different

conduits. The image shows a single pipe drawing water from a “WATER TANK” through a “FLOW METER” before branching into two branches leading to a “HOT WATER PUMP” and a “COLD WATER PUMP”, respectively. The same liquid, water, flows through both.

The term “a second solvent” should be construed as “either a second type of solvent or the same solvent as ‘a first solvent’ but disposed in a different conduit.”

VII. Level of Ordinary Skill in the Art

A POSA at the time of the alleged invention would have had at least the following (or equivalents): a B.S. degree in mechanical engineering with at least five years of experience in product design; or an M.S. degree in mechanical engineering with at least two years of experience in product design. Ex1002-12.

VIII. Prior Art Overview

The prior art disclosed all limitations of the challenged claims before the effective Filing Date.

A. Effective Filing Date and AIA Treatment

Despite claiming priority to a pre-AIA provisional application, the challenged claims are subject to the America Invents Act (“AIA”). The application leading to the ‘271 patent claimed priority to a patent and patent application that contain at least one “claim to a claimed invention that has an effective filing date

after [March 15, 2013].” AIA §3(n)(1). Thus, the AIA applies to the ‘271 patent.

Id.

The ‘271 patent claims priority to U.S. Pat. No. 10,772,456 (the 456 patent) and application serial no. 16/383,607. Ex1001-1. Both contain claims with an effective filing date after March 15, 2013.

Claims 1-10 and 14-16 of the 456 patent are not entitled to the priority date of provisional application serial no. 61/742,688 (the 688 application) (Ex1012). These claims require a “resulting solvent valve.” Ex1014, 18:29-41, 20:41-53. Claim 8 of the ‘456 patent is not entitled to the filing date of the 688 application, because this claim requires “a recirculation conduit” and “a recirculation pump.” The 688 application neither teaches nor discloses any such valve, recirculation conduit, or recirculation pump. *See generally* Ex1012. The “resulting solvent valve”, “recirculation conduit”, and “recirculation pump” were new matter added to application serial no. 14,421,362 (the 362 application), which was filed on August 16, 2013. Ex1001-1.

Thus, ‘456 patent claims 1-10 and 14-16 are entitled to an effective filing date no earlier than August 16, 2013. *See, e.g.*, 35 U.S.C. §119(e); *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1294 (Fed. Cir. 2002) (“[T]o be afforded the priority date of the provisional application,...the written description of the provisional must adequately support the claims of the non-provisional

application...”).

Pursuant to AIA §3(n)(1), all claims of the ‘271 patent are subject to the first-to-file invalidity provisions of the AIA, because the ‘271 patent contains a priority claim to the ‘456 patent and the 362 application.

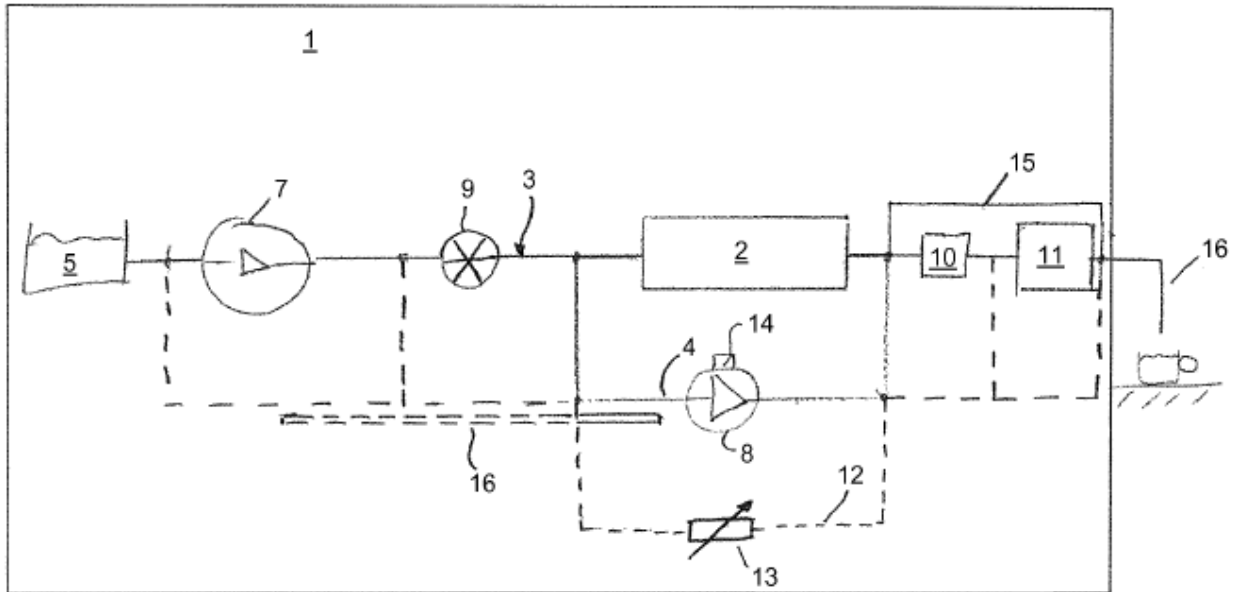
Petitioner does not herein argue as to whether the 688 application adequately supports the claims of the ‘271 patent, but merely that the claims of the ‘271 patent are not entitled to pre-AIA treatment.

B. Startz (Ex1003, Ex1004)

Startz describes “A beverage machine (1), in particular to a coffee machine...” Startz describes a system in which solvent (mixing water and admixing water) is pumped through two conduits (paths 3, 4) by two pumps (7, 8) through one or two heating devices (2, 16). The conduits are joined (return of bypass flow path between 2 and 10) to form a resulting conduit for mixing the solvent. The mixed solvent is pumped into a brewing device (11) where the mixed solvent encounters a solute (e.g., ground coffee) to create an infused beverage (e.g., coffee) that is dispensed at dispensing location (6, mislabeled as 16).

Ex1002-21.

The system is illustrated in FIG. 1:

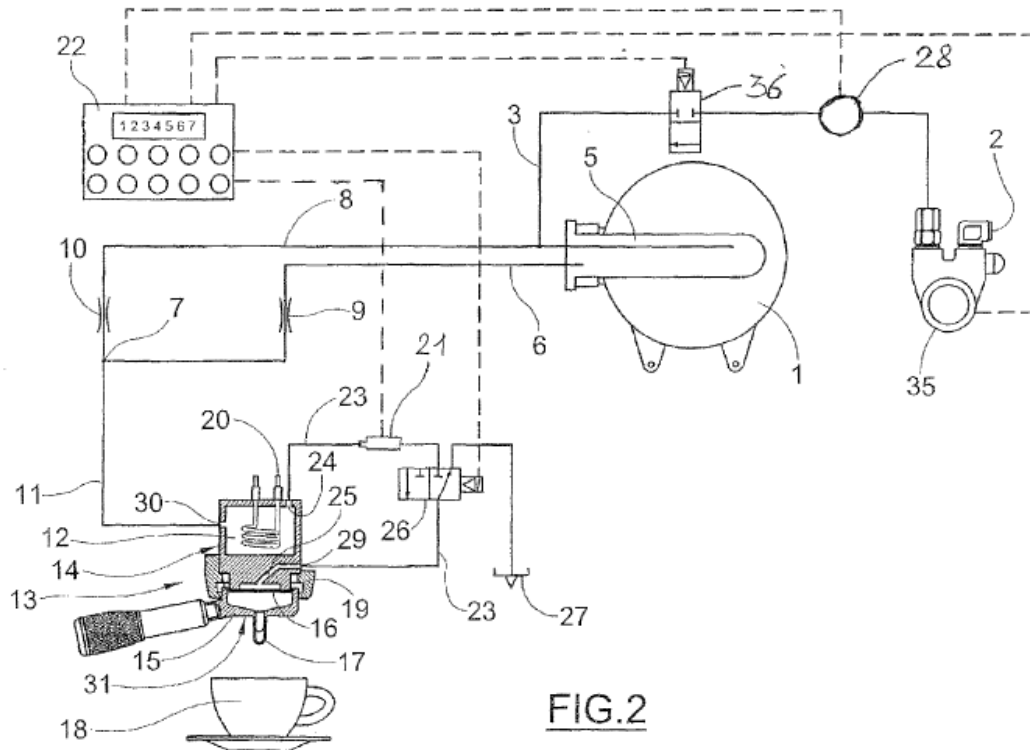


Startz uses a control device (14) to modify one or more of flow rate, temperature, and pressure, by receiving data from a flow meter (9) and/or temperature sensors (not shown), using that data to control/modulate one or more pumps and/or thermal modulators to affect temperature or flow. Ex1002-21-22.

C. Coccia (Ex1006)

Coccia describes an “infusion” beverage maker for “wetting of the coffee powder” and brewing coffee. Coccia describes a system in which solvent (cold water 2) is pumped by hydraulic pump (4, 35) through two conduits (6, 8) and a heat exchanger (5, 1). The conduits are joined (7) to form a resulting conduit (11) for mixing hot and cold solvent. The mixed solvent may be further heated by resistance 20 before traveling along conduits (23, 25) and into the brewing chamber (31, 15, 16) to create an infused beverage (e.g., coffee) that is discharged

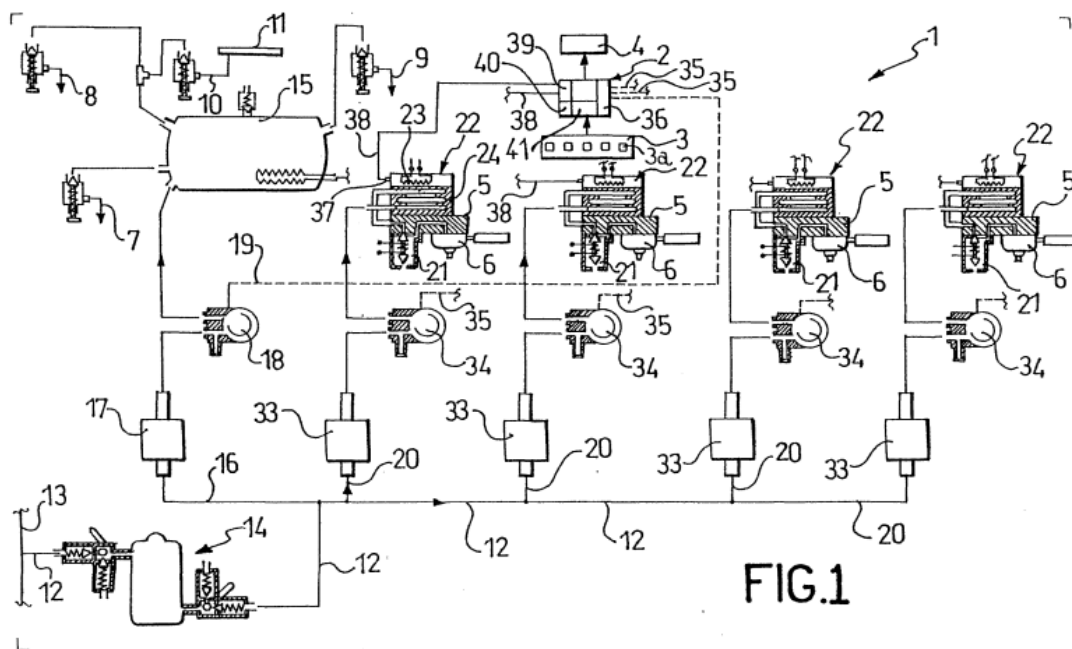
at an outlet (17). See FIG. 2:



Coccia describes electronic controller (22) using temperature sensors (not shown), pressure sensors (21), and flow rate measurements (28) to modulate the temperature of the solvent. Ex1002-19-20.

D. Giuliano (Ex1005)

Giuliano describes a professional espresso coffee maker that includes an electronic controller (2) and makes coffee by infusing a “coffee cake” with water in a brewing chamber (5). The machine (1) provides water through conduit (12, 20) to pumps (33), flow meters (34), and heaters (22). The heaters (22) have temperature sensors (37) to provide data to electronic controller (2). Ex1002-26.



Giuliano teaches that electronic controller (2) has a logic unit (41) for activating resistors (23) in heaters (22) at various stepwise power increments to accurately control the desired temperature of the water being dispensed. Ex1002-26.

E. Majer (Ex1008)

In Majer's system, two solvents (water from water source 3; milk) are pumped through two conduits (C1, C2) by two pumps (4, 4bis) through at least one heating means (5, 5bis).

Solvent (hot water) is pumped into a brewing means (2) where it encounters solute (ground coffee) to create a solution (espresso coffee) that is discharged into a beverage container (7). Ex1002-22.

See FIG. 1:

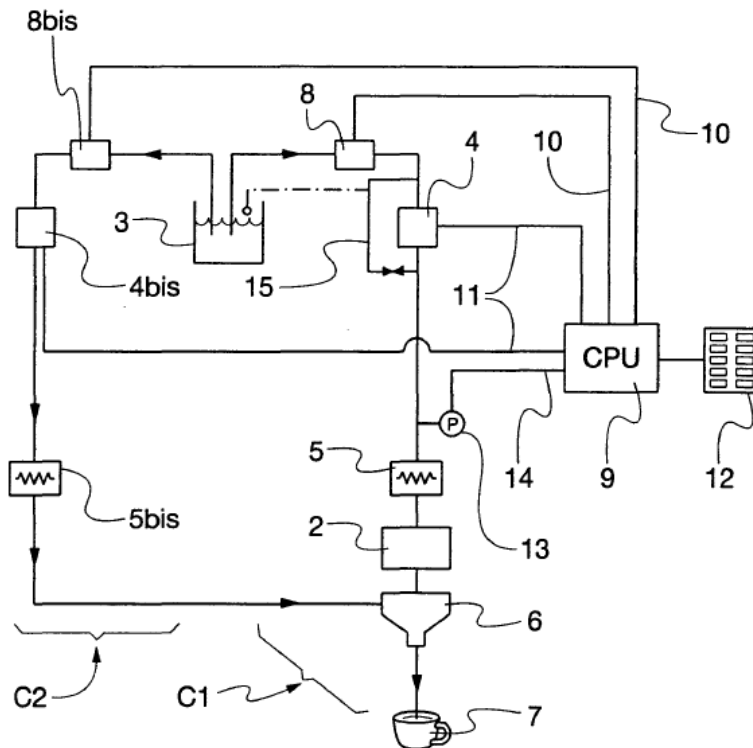


Fig. 1

Majer uses electronic controller (CPU 9) to modify one or more of flow rate, temperature, and pressure, by receiving data from flow meters (8, 8bis), pressure meter (13), and/or temperature monitors, then using that data to control/modulate one or more of the pumps and/or heating means to affect temperature, flow, and/or pressure. Ex1002-23.

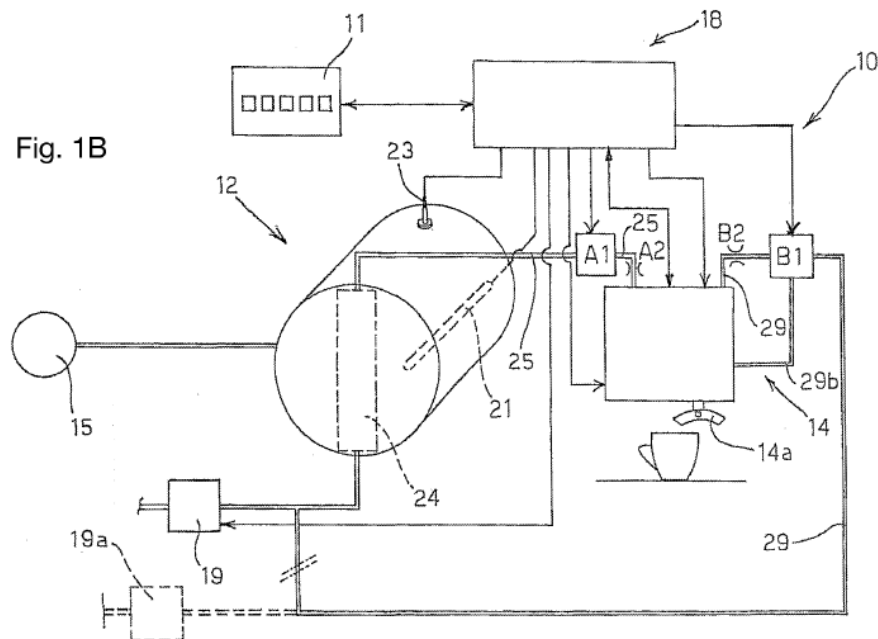
F. Porzio (Ex1011)

In Porzio's system, two solvents (water, aromatic liquid) are pumped through two conduits (25, 29) by two pumps (19, 19a) through at least one thermal modulator (heat exchanger 24). The conduits join at brew group 14 for mixing the solvents. The mixed solvents are pumped into a brewing chamber (brew group 14) where they encounter solute (ground coffee) to create a solution (espresso coffee) discharged into a

receptacle (via
spout 14a).

Porzio's valves
(A1, B1) control
flow and

temperature of the
water. Ex1002-23-
24. See FIG. 1B:



Porzio uses electronic controller (control unit 18) to modify one or more of flow rate, temperature, and pressure, by receiving data from temperature measuring devices (23), then using that data to control/modulate one or more of the pumps and/or thermal modulators to affect temperature, flow, and/or pressure. Ex1002-

24.

G. Buttiker (Ex1009, Ex1010)

In Buttiker's coffee brewing system, two pumps (31, 32) pump solvent (water from liquid container 10) along two conduits (31a, 31b, 51a, 51b, 51c, 32a, 32b, 52a, 52b, 52c) through two heaters (41, 42) and on to a brewing chamber (60).

The two conduits meet at mixing node 53 and the solvent travels through a

resulting conduit (54) before

being dispensed (outlet unit

70). Buttiker's controller

(20) receives data from flow

meters, pumps, and heaters,

and controls the pumps (31,

32) and heaters (41, 42). A

user may use user interface

15 to set parameters such as

volume and temperature.

Ex1002-25-26. See FIG. 1:

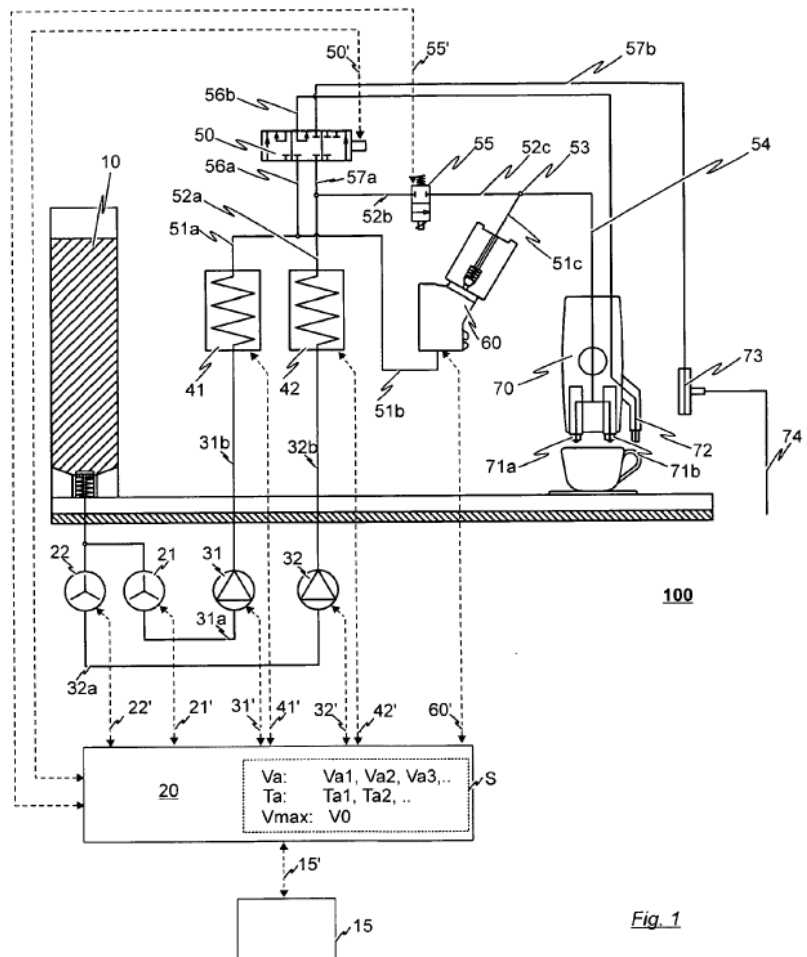


Fig. 1

H. Motivation to Combine

A POSA seeking to solve one or more of the 271 patent's problems or achieve one or more of these goals would have considered patents, publications, and knowledge related to heated beverage-making, in particular related to brewed beverages that use "solute particles" and "solute compaction." This would have led a POSA to patents and publications related to coffee and/or tea making, and possibly to related beverage making, and would have led the POSA to consider their own knowledge of technologies in the art. Ex1002-28-29.

Each of the prior patents and publications discussed in the preceding section is related to coffee and/or tea making. Ex1002-28.

A POSA seeking to achieve one of the goals or solve one of the problems set forth above, section V.B, would have considered various control systems. Such control systems would have included electronic controllers, various sensors, and various types of control mechanisms, such as controllable pumps, controllable heaters, controllable valves, etc. Numerous such controls systems and their components were known to a POSA as of August 2012, as numerous coffee (drip, espresso, etc.) machines were being sold (and that had been disclosed in patents and printed publications) that incorporated various types of control systems. Some of these coffee machines incorporated control systems that allowed higher precision, accuracy, and dynamic control, while other systems incorporated control

systems that allowed for lesser precision, accuracy, and dynamic control. During Expert Tinkler's decade at Keurig, he and the POSAs working for him designed and assisted with the design of over 60 machines or systems, many of which were publicly known before August 2012. Ex1002-28-29.

Each of Startz and Coccia discloses all or most of the subject matter claimed by multiple claims of the 271 patent. However, Startz does not explain his controller, sensors, or control mechanisms in depth. Similarly, Coccia does not provide two pumps or two heaters prior to the point at which the first and second solvents are mixed. A POSA attempting to address the goals and/or problems identified in the 271 patent (see above, §V.B) with Startz's system would have sought control systems, sensors, and components that enhanced the precision, accuracy, and dynamic temperature control of Startz's system. And, as set forth in more detail below, a POSA attempting to address the goals and/or problems identified in the 271 with Coccia's system would have sought systems with two pumps, two heaters prior to the point at which solvents were mixed, as well as electronic control of the various components. Ex1002-29-30.

As explained by Expert Tinkler (at Ex1002-30), the problems identified in the 271 patent, including any of "lack of independent variable control", "independent modulation of infusion pressure and flow rate", "varying exiting flow rate", and/or "difficult [] duplicat[ion of] the flavor of an extraction" would have

led a POSA to seek out solutions with multiple pumps, multiple heaters, and precision control that can be achieved with electronic controllers. For example, in many systems, the water supply is at an ambient temperature, whether the water is in a reservoir such as Startz's water tank 5 or piped from an external source such as Coccia's "external source of cold water 2."

Ambient water temperature can vary greatly in various environments such as piped water in hot desert regions and cold mountain regions, water in a heated building, or water at an outdoor coffee stand in winter. Even if a machine can precisely heat the solvent in one conduit to a stable, high temperature, in both Coccia's system and Startz's system, that solvent will be mixed with the solvent in a second conduit that is at a potentially widely varying ambient temperature. In such machines, drinks such as espresso coffee are made with a very small volume and flow rate. In such machines, it can be very difficult to control the brewing temperatures when the temperature of the colder conduit could be widely spaced. The variance in temperature between the hotter and colder conduit ("delta-T") can vary significantly. Ex1002-30-31.

For example, where the hotter water is close to boiling (near 100°C) and the colder water is close to freezing (e.g., close to 0°C ambient water temperature in a cold region), the delta-T is much more than in a system where the colder water is at room temperature in a heated room (e.g. near 22°C) or being sourced through pipes

in a hot desert region (sometimes near 37°C in cities such as Phoenix, AZ). And in either type of environment, the delta-T is much more significant than if the colder water is heated to a temperature only slightly below the optimal brewing temperature (e.g., heated to between 70°C and 90°C). Ex1002-31.

A POSA would have recognized that where precise temperatures and/or flow rates were desired for brewing coffee, it would be best to mix two similarly heated portions of water, rather than mixing a precisely heated portion of water with a portion that could have a greatly varying temperature. Such a POSA would have recognized the need for two separate pumps, two separate heaters, and electronic control of pumps and/or heaters. Thus, a POSA would have been motivated to combine the disclosures of one or more of Majer, Porzio, Buttiker, and/or Giuliano with the disclosures of Coccia and/or Startz to solve the problems and achieve the goals identified in the 271 patent. Ex1002-31.

As explained by Expert Tinkler (at Ex1002-31-32), faced with the goals and problems identified in the 271 patent, a POSA would have known that in some instances the goals would better be accomplished and the problems would better be solved when a machine could be built with two of the same or similar pumps, such as the pumps disclosed in Buttiker, Majer, and Porzio. For example, at times companies have designed and built their own pumps for coffee machines. In such circumstances it would have been less expensive and more reliable to design, test,

and build only one type of pump rather than two vastly different pumps. For example, failure mechanisms would only need to be designed out once and a single set of manufacturing equipment (e.g. molds) could be created and used for all pumps, rather than requiring two designs and two sets of manufacturing equipment. Ex1002-31-32.

These similar or identical pumps would have also proved to be advantageous when the temperatures of heated water in the “cold” conduit were close to the temperatures of water in the “hot” conduit. If such temperatures were close, such that delta-T was low, the hot conduit pump and cold conduit pump could have pumped at similar flow rates, which would have allowed for more precision in temperature and flow rate than would have been permitted by attempting to pump water at a relatively high rate with one pump and a relatively very low rate with the second pump, all while attempting to maintain precise temperatures in machines with very low flow rates. Thus, to achieve the goals stated or solve the problems identified in the 271 patent, a POSA would have been further motivated to combine Startz and/or Coccia with any of Buttiker, Majer, and/or Porzio to use the electronically-controlled, similar pumps depicted in those references. Ex1002-32-33.

With regard to Giuliano specifically, Coccia explicitly states, “It will be appreciated that the heat sources may be independent primary heaters, for example

of the type disclosed in WO 91/07898.” Ex1006 ¶0088. Thus, a POSA would have been motivated by this statement to combine Giuliano with Coccia. Ex1002-33.

Each identified prior patent/publication provides at least one enhancement in the form of control systems, sensors, and components for enhancing precision, accuracy, and dynamic temperature control. Many other coffee machine systems that would be within the knowledge of a POSA (in August 2012) incorporated various enhancements in the form of control systems, sensors, and components for enhancing precision, accuracy, and dynamic temperature control. Ex1002-33.

A POSA would have had motivation to combine Startz’s disclosure with one or more of the POSA’s knowledge, Porzio, Majer, and/or Buttiker. Ex1002-33. And a POSA would have had motivation to combine Coccia’s disclosure with one or more of the POSA’s knowledge, Giuliano, Buttiker, Majer, and/or Porzio. Ex1002-33.

IX. Grounds

A. Grounds I and II: Claims 1-4 are Anticipated by Startz; Claims 1-4 are Obvious Over Startz in View of One or More of the Knowledge of a POSA, Porzio, and/or Majer

1. Claim 1

- (a) **“A method of generating a desired temperature of an infused beverage within a brewing assembly comprising the steps of:”**

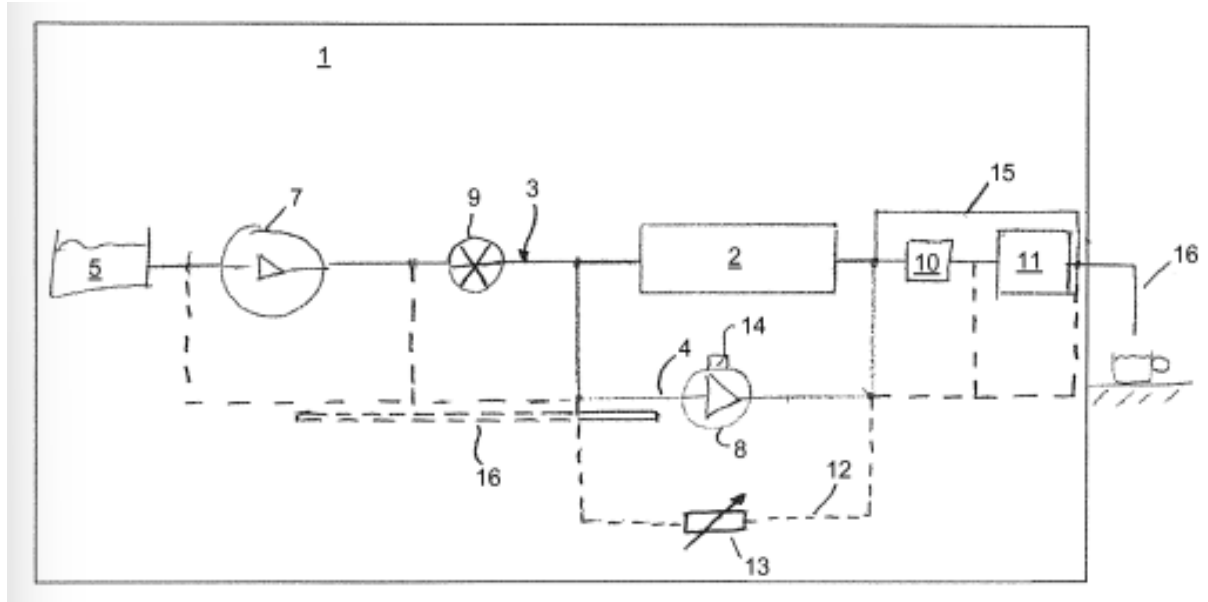
Startz discloses systems and methods for generating a desired temperature of

an infused beverage within a brewing assembly. Ex1003, 1:5-16, 1:54-58, 3:9-13, Abstract; Ex1002-34.

Startz discloses, “According to FIG. 1, a beverage machine 1 according to the invention, which can be embodied as a coffee machine,...” Ex1003, 3:9-11. It is well known that coffee is an infused beverage formed by infusing a solute (ground coffee) with a solvent (water). Startz further discloses, “The instant invention ... provides reliable setting of an accurate mixing temperature.” Ex1003, 1:54-59, 2:29-30 (“...individual mixing temperatures can be specifically generated at the dispensing location/mixing area...”), 4:1-3 (“...different mixing temperatures can furthermore be generated specifically...”), 4:18-19 (“If a cool beverage is desired...”). Ex1002-35.

(b) “inducing a flow of a first solvent within a first solvent conduit upstream of a brewing chamber in a brewing assembly, the first solvent at a first temperature;”

As FIG. 1 shows (below), Startz provides a first solvent conduit (bypass flow path 4). A first solvent (water from water tank 5 in conduit 4) is disposed within the first solvent conduit upstream of the brewing chamber (brewing device 11). Bypass flow pump 8 induces a flow of solvent (water) within the first solvent conduit (4) upstream of the brewing chamber (11). The solvent inherently is at a temperature. Ex1002-35-36.



Startz states, "...a bypass flow pump 8 is now arranged in the bypass flow path 4..." Ex1003, 3:19-21; Ex1002-36. Startz states, "By means of the active reaction of the bypass flow pump, a defined rate of flow can additionally be established quickly..." Ex1003, 2:28-30. Startz states, "...the bypass flow pump 8 can...convey exactly the quantity or a slightly higher quantity of bypass water,..." Ex1003, 4:14-16; Ex1002-36. Startz claimed, "a bypass flow path branching from the main flow path upstream of the heating device, and a bypass pump arranged in the bypass flow path..." Ex1003, claim 1; Ex1002-36.

Within the Startz embodiment shown in FIG. 1, the water flows from water tank 5 on the left to dispensing location 6 (mislabelled 16) on the right. Ex1002-36. Thus, a POSA would have understood that the portion of the first solvent conduit (4) where pump 8 induces a flow of first solvent (water) is upstream of a brewing chamber (brewing device 11). *Id.*

(c) “inducing a flow of a second solvent within a second solvent conduit, separate from the first solvent conduit, upstream of the brewing chamber, and”

As FIG. 1 demonstrates (above), Startz provides a pump (main flow pump 7) attached to a second solvent conduit (main flow path 3) that receives a second solvent (water from tank 5 in conduit 3) and induces the flow of the solvent (water) therethrough. The second solvent conduit (3) and first solvent conduit (4) are separate. Pump 7 induces a flow of solvent (water) within the second solvent conduit (3) upstream of the brewing chamber (11). Ex1002-37.

Startz states, “In the main flow path 3, a main flow pump 7 is thereby arranged between the water tank 5 and the heating device 2.” Ex1003, 3:17-19; Ex1002-37. Startz states, “A defined rate of flow can furthermore be generated via the bypass flow path 4 by means of any embodiments of the bypass flow pump 8, even when a simultaneous main flow is present at the same time in the main flow path 3.” Ex1003, 4:34-38. Startz claimed, “a main flow path having an input end connected to a water supply and an output end connected to a dispensing location, a heating device disposed along the main flow path between the input end and the output end and a main flow pump arranged between the input end and heating device.” Ex1003 claim 1; Ex1002-37.

Within the Startz embodiment shown in FIG. 1, the water flows from water

tank 5 on the left to dispensing location 6 (misabeled 16) on the right. Ex1002-37-38. Thus, a POSA would have understood that the portion of the second solvent conduit (3) where pump 7 induces a flow of second solvent (water) is upstream of a brewing chamber (brewing device 11). Ex1002-37-38.

Alternatively, the application of elements 1(b) and 1(c) to Startz can be reversed such that conduit 4 is the second conduit, pump 8 is the second pump, conduit 3 is the first conduit, and pump 7 is the first pump. Ex1002-34.

If the Board determines that the “second solvent” cannot be water when the “first solvent” is water, it would have been obvious to a POSA that a solvent other than water could (and in certain devices, would) be used in one conduit while water could and would be used in the other conduit in Startz’s device. Ex1002-38. Other prior art confirms this.

For example, Majer states, “Although it is explicitly mentioned that water is used as the brewing and additional liquid in the first and second circuits C1 and C2, other suitable liquids can be used, such as a liquid ingredient, for example milk, can be dispensed by said second circuit C2.” Ex1008, 16:19-22. Thus, Majer explicitly discloses using a different solvent in a second conduit. Ex1002-38.

And Porzio discloses, “[In] another embodiment it is provided that second

conduit 29 is for example connected to...a container of aromatic liquid such as to permit the brew group to be fed with the aromatic liquid. In the rest of the description,...the brew group is fed with water through conduits 25 and 29...”
Ex1011 8:10-20. Porzio explicitly discloses using aromatic liquid in conduit 29 and water in conduit 25. Ex1002-38.

Accordingly, if the “second solvent” cannot be the same as the “first solvent,” a POSA would have known that it would have been obvious to use two different solvents in Startz’s two different conduits. Ex1002-75.

(d) “thermally modulating the second solvent to a second temperature higher and different than the first temperature;”

As FIG. 1 shows (above), Startz provides a thermal modulator (heating device 2) for heating the second solvent (water in conduit 3) to a second temperature higher than the first temperature. Ex1002-39.

Startz teaches, “...a main flow path 3, which leads through a heating device 2,...In the main flow path 3, a main flow pump 7 is thereby arranged between the water tank and the heating device.” Ex1003, 3:9-19. Startz claims, “a heating device disposed along the main flow path between the input end and the output end...” Ex1003, claim 1; Ex1002-39. Startz discloses, “[T]he bypass flow pump 8 can,...convey exactly the quantity or a slightly higher quantity of bypass water,

which is necessary to obtain the lowest required mixing temperature. If a cool beverage is desired, the bypass flow pump 8 can thus be actuated permanently.”

Ex1003, 4:14-19. To lower the mixing temperature, it would be necessary to admix cooler solvent from pump 8 with hotter solvent from flow path 3. Ex1002-39.

Alternatively, if conduit 4 is the second conduit, Startz’s further heating device 16 could be the thermal modulator that modulates the second solvent to a higher temperature. Ex1002-40.

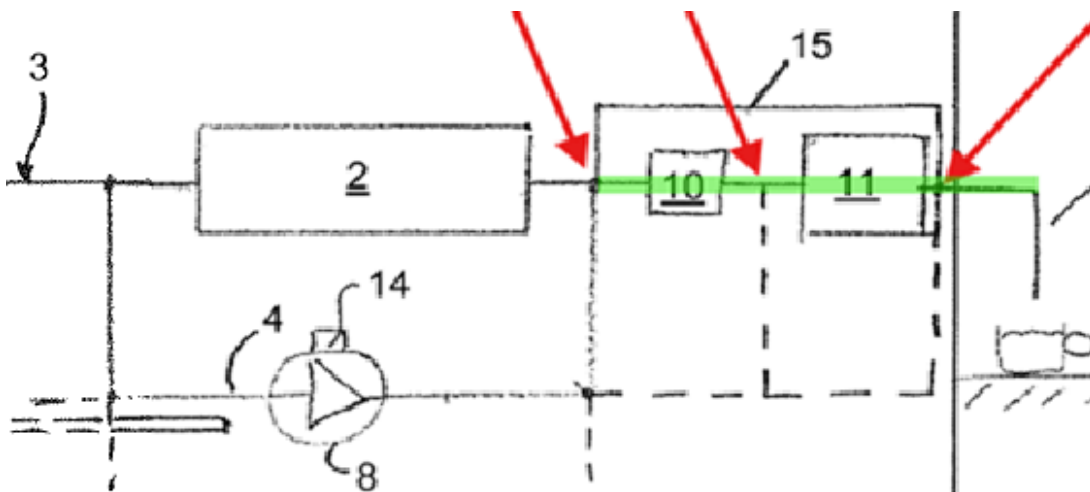
Startz discloses that the thermal modulator (2) is operably configured to thermally modulate (heat) the solvent (water) disposed in the second solvent conduit (3) to a raised temperature higher and different than the temperature of the water in the first solvent conduit (4). Ex1002-40.

Startz states, “The heating device 2 can be embodied as a common continuous-flow water heater...” Ex1003, 3:50-52. A POSA would have known that it is inherent that a “heating” device will raise the temperature of water flowing through it. Ex1002-40. The main flow path 3 leads through the heating device 2; thus, a POSA would have known that the heating device 2 is configured to heat the water in the second conduit. Ex1002-40. And a POSA would have known that it is inherent that the “raised temperature” exiting the heating device 2

will be higher than the temperature of cold water from path 4. Ex1002-40.

- (e) **“selectively combining the first and second solvents at a resulting solvent conduit upstream of the brewing chamber to form a resulting solvent at a selectively desired temperature lower than the second temperature;”**

As annotated FIG. 1 of Startz shows (below), the first (4) and second (3) solvent conduits are combined together (at a coupling point between 2 and 10, between 10 and 11, or to the right of 11, *see red arrows*) downstream of the thermal modulator (2) to form a resulting solvent conduit (green) with a resulting solvent (mixed hot and cold water) disposed therein at a selectively desired temperature (mixing temperature) lower than the temperature of the heated solvent in second solvent conduit (3). Ex1002-40-41.



Startz teaches, “A return of the bypass flow path 4 into the main flow path 3 thereby preferably takes place either between the heating device 2 and the brewing

valve 10 or downstream from the brewing device 11, whereby alternative positions for...a return into the main flow path 3 are illustrated by means of a broken line.”

Ex1003, 3:35-41. Startz teaches, “...individual mixing temperatures can be specifically generated at the dispensing location/mixing area by correspondingly changing the capacity of the bypass flow pump.” Ex1003, 2:27-32. Startz teaches, “By changing the capacity at the bypass flow pump 8 or by pulsing this bypass flow pump 8, different mixing temperatures can furthermore be generated specifically...” Ex1003, 3:67-4:5, Claim 4; Ex1002-41-42. Startz further teaches, “[T]he bypass flow pump 8 can...convey exactly the quantity or a slightly higher quantity of bypass water, which is necessary to obtain the lowest required mixing temperature. If a cool beverage is desired, the bypass flow pump 8 can thus be actuated permanently.” Ex1003, 4:14-23, Ex1002-42.

(f) “receiving the resulting solvent at the brewing chamber housing a solute at the selectively desired temperature to produce an infused beverage; and”

Startz discloses a brewing chamber (brewing device 11) that receives the resulting solvent (mixed water) and houses a solute (ground coffee). As noted in the analysis of element (e), the solute is at the selectively desired temperature for producing an infused beverage (coffee). Ex1002-42.

Startz teaches, “In the main flow path 3,...a brewing valve 10 as well as a

brewing device 11 are arranged downstream from the heating device 2.” Ex1003, 3:24-27, Claim 2; Ex1002-42. A POSA would have understood that Startz taught that his invention “can be embodied as a coffee machine” and would have recognized that a “brewing device” in a coffee machine is designed to house ground coffee and receive hot water to produce a coffee beverage. Ex1002-42-43. A POSA would have understood that Startz’s “brewing device 11” would have the same properties as the claimed “brewing chamber.” Ex1002-42-43.

(g) “discharging the infused [beverage] through an outlet on the beverage assembly.”

The only antecedent use of the term “infused” within claim 1 is in the preamble that recites “an infused beverage.” Petitioner therefore interprets “the infused” as a reference back to “an infused beverage.”

Startz discloses discharging the infused beverage (coffee) through an outlet (dispensing location 6, mislabeled as 16) on the beverage assembly. Ex1002-43

Startz teaches “a dispensing location 6 on the output side.” Ex1003, 3:16. Startz references, “a beverage temperature at the dispensing location 6.” Ex1003, 3:55-56. Startz claims “a main flow path having an input end connected to a water supply and an output end connected to a dispensing location...[with] a beverage temperature at the dispensing location...” Ex1003, claim 1; Ex1002-43.

A POSA would have recognized that label 6 is missing from the output side

of FIG. 1, and that label 16 must be the mislabeled dispensing location. Ex1003, FIG. 1; Ex1002-43. A POSA would have recognized the appearance of a crudely drawn mug below label 16 and would have understood that label 16 represented the location where coffee, tea, or other infused beverages would be discharged. Ex1002-43.

Startz anticipates claim 1 and/or renders claim 1 obvious in view of one or more of the knowledge of a POSA, Porzio, and/or Majer. Ex1002-43.

2. Claim 2

- (a) **“The method according to claim 1, further comprising: thermally modulating the first solvent in the first solvent conduit to the first temperature.”**

Startz discloses thermally modulating (heating with further heating device 16) the first solvent (water) in the first solvent conduit (4) to a first temperature. Ex1002-44.

Startz states, “Provision can be made, for example, for a further heating device 16 for heating the bypass flow path 4 at least area by area.” Ex1003, 4:11-13. Startz does not detail heating device 16, but described “a main flow path 3, which through a heating device 2...” Ex1003, 3:11-12. A POSA would have known and understood that the same type of device could (and in certain devices,

would) be used for both heating device 2 and heating device 16; it would have been obvious that heating device 16 would heat the water in conduit 4. It is inherent that water passing through an active “heating device” will be at a higher/raised temperature (first temperature) upon exiting the heating device. Ex1002-44.

Thus, Startz discloses thermal modulators for both the first solvent and the second solvent. Moreover, a POSA would have recognized that it would be obvious to include two thermal modulators and that the temperature of the solvent in each conduit would be raised by the respective thermal modulators. Ex1002-44.

Startz anticipates claim 2 and/or renders claim 2 obvious in view of one or more of the knowledge of a POSA, Porzio, and/or Majer. Ex1002-44-45.

3. Claim 3

- (a) **“The method according to claim 2, further comprising: thermally modulating the first solvent in the first solvent conduit with a first thermal modulator and thermally modulating the second solvent in the second solvent conduit with a second thermal modulator.”**

Startz discloses thermally modulating (heating) the first solvent (water) in the first solvent conduit (4) with a first thermal modulator (16) and thermally modulating (heating) the second solvent (water) in the second solvent conduit (3)

with a second thermal modulator (2). Ex1002-45.

Startz states, “The heating device 2 can be embodied as a common continuous-flow water heater...” Ex1003, 3:50-52. A POSA would have known that it is inherent that a “heating” device will raise the temperature of water flowing through it. Ex1002-45. The main flow path 3 leads through the heating device 2; thus, a POSA would have known that the heating device 2 is configured to heat the water in the second conduit. Ex1002-45.

Regarding the first thermal modulator, Startz states, “Provision can be made, for example, for a further heating device 16 for heating the bypass flow path 4 at least area by area.” Ex1003, 4:11-13. Startz does not detail heating device 16, but described “a main flow path 3, which through a heating device 2...” Ex1003, 3:11-12. A POSA would have known and understood that the same type of device could (and in certain devices, would) be used for both heating device 2 and heating device 16. Ex1002-45-46. It is inherent that water passing through an active “heating device” will be at a higher/raised temperature upon exiting the heating device. Ex1002-45-46.

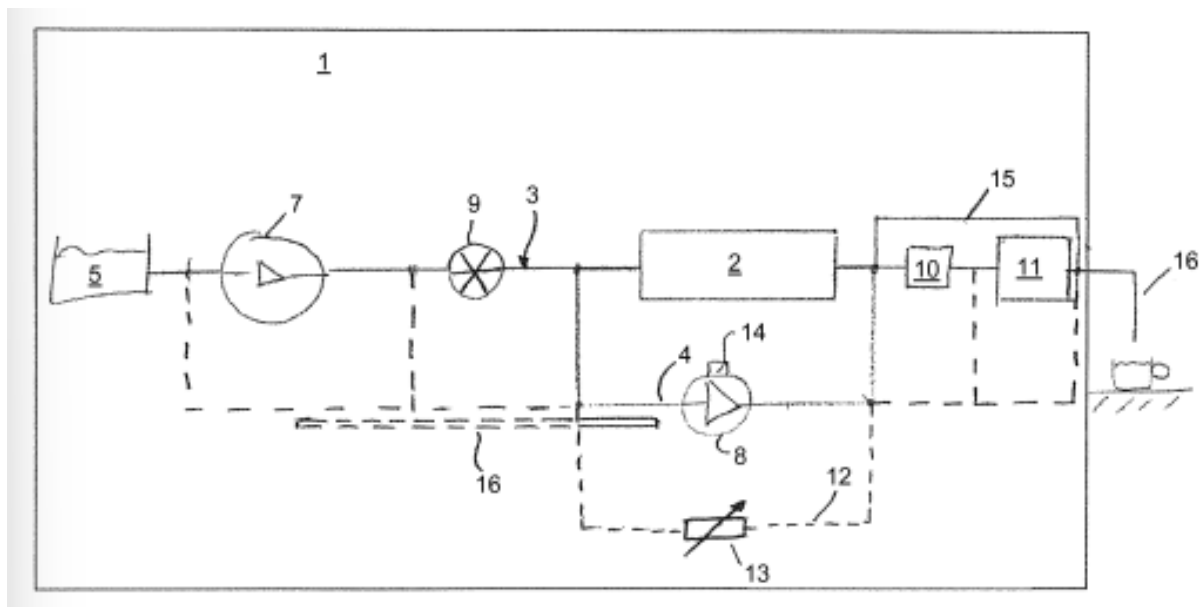
A POSA would have recognized that it would be obvious to include two thermal modulators that were each in fluid communication with one of the conduits, and that the temperature of the solvent would be raised by the thermal modulators. Ex1002-46.

Startz anticipates claim 3 and/or renders claim 3 obvious in view of one or more of the knowledge of a POSA, Porzio, and/or Majer. Ex1002-46.

4. Claim 4

- (a) **“The method according to claim 3, further comprising: inducing the flow of the first solvent within the first solvent conduit with a first pump and inducing the flow of the second solvent within the second solvent conduit with a second pump.”**

As FIG. 1 demonstrates, Startz describes inducing the flow of the first solvent (water) within the first solvent conduit (4) with a first pump (8) and inducing the flow of the second solvent (water) within the second solvent conduit (3) with a second pump (7). Ex1002-46-47.



Startz states, “In the main flow path 3, a main flow pump 7 is thereby arranged between the water tank 5 and the heating device 2.” Ex1003, 3:17-19;

Ex1002-47. Startz states, “A defined rate of flow can furthermore be generated via the bypass flow path 4 by means of any embodiments of the bypass flow pump 8, even when a simultaneous main flow is present at the same time in the main flow path 3.” Ex1003, 4:34-38. Startz claimed, “a main flow path having an input end connected to a water supply and an output end connected to a dispensing location, a heating device disposed along the main flow path between the input end and the output end and a main flow pump arranged between the input end and heating device.” Ex1003 claim 1; Ex1002-47.

Startz states, “...a bypass flow pump 8 is now arranged in the bypass flow path 4...” Ex1003, 3:19-21; Ex1002-47-48. Startz states, “By means of the active reaction of the bypass flow pump, a defined rate of flow can additionally be established quickly...” Ex1003, 2:28-30. Startz states, “...the bypass flow pump 8 can...convey exactly the quantity or a slightly higher quantity of bypass water...” Ex1003, 4:14-16; Ex1002-47-48. Startz claimed, “a bypass flow path branching from the main flow path upstream of the heating device, and a bypass pump arranged in the bypass flow path...” Ex1003, claim 1; Ex1002-48.

Alternatively, the elements can be reversed such that conduit 4 is the second conduit, pump 8 is the second pump, conduit 3 is the first conduit, and pump 7 is the first pump. Ex1002-48.

If the Board determines that the “another solvent” cannot be water when “the solvent” is water, it would have been obvious to a POSA that two different solvents could (and in certain devices, would) be used in Startz’s device. Ex1002-48. Analysis of prior art disclosing two different solvents is set forth above in the analysis of claim 1(c).

Startz anticipates claim 4 and/or renders claim 4 obvious in view of one or more of the knowledge of a POSA, Porzio, and/or Majer. Ex1002-48.

B. Ground III: Claims 5-6 are Obvious Over Startz in View of One or More of the Knowledge of a POSA, Buttiker, Porzio, and/or Majer

1. Claim 5

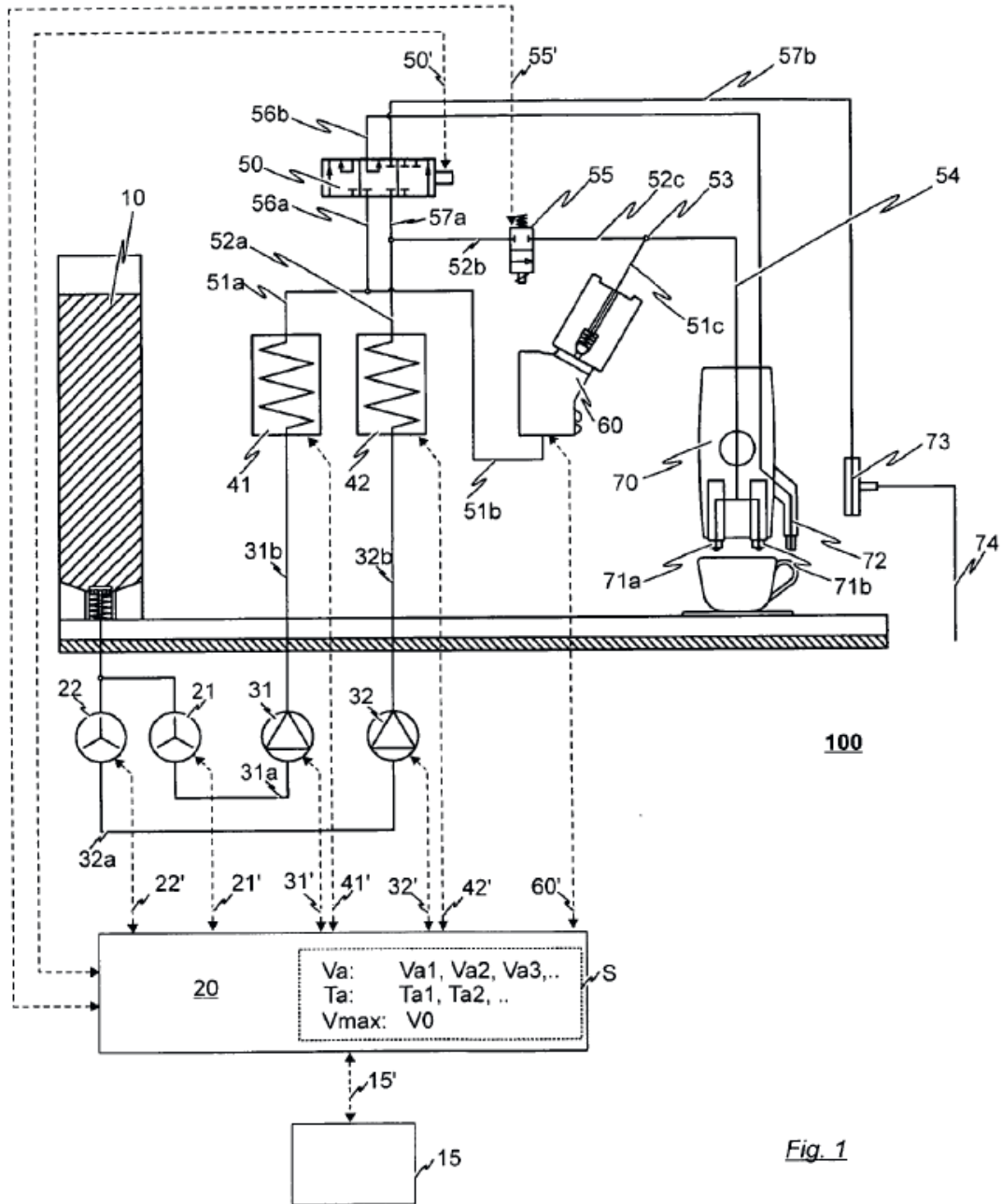
- (a) **“The method according to claim 4, further comprising: electronically controlling the first and second pumps with an electronic controller to selectively modulate the flows of the first and second solvents, respectively, to generate a desired flow rate of the resulting solvent.”**

Startz does not explicitly disclose all of the limitations of claim 5. As set forth above, section VIII.H, a POSA would have been motivated to combine Startz and Buttiker. Ex1002-49.

Buttiker discloses electronically controlling the first and second pumps (feed pumps 31 and 32) with an electronic controller (control device 20) to selectively

modulate the flows of the first and second solvents (water in conduits 31b, 51a, 51b and water in conduits 32b, 52a, 52b), respectively, to generate a desired flow rate (flow per unit of time) of the resulting solvent (mixed water). Ex1002-49.

Buttiker Fig. 1 discloses two conducts (liquid pipes 31b and 32b) that are equipped with two flow meters (21 and 22), two pumps (31 and 32), and two thermal modulators (hot water sources 41 and 42). Ex1002-49-50.



In Buttiker Fig. 1 (above), one portion of heated water is pumped through hot water source 41 into conduit 51a, then conduit 51b, before reaching the brewing chamber (brewing unit 60), and then conduit 51c. Ex1010 ¶0023. Another portion of heated water is pumped through hot water source 42 into conduit 52a, then conduit 52b, then conduit 52c. Ex1010 ¶0024. Conduits 51c and

52c are joined at mixing node 53 to mix brewed coffee with hot water in conduit 54, before dispensing through beverage outlets 71a and 71b. Ex1010 ¶¶0041-0042, 0026. Ex1002-50-51.

Buttiker states, “[T]he brewing device is equipped with a control device 20, which can be designed as a microprocessor...” Ex1010 ¶0019. Buttiker teaches, “[F]irst feed pump 31 creates part of a brewing water feed device and is connected to a hot water feed pipe 51a via a liquid pipe 31b and a first hot water source 41...” Ex1010 ¶0018. Buttiker states, “the first feed pump 31 is connected to the control device 20 via a (for example bidirectional) data pipe 31', via which the control device 20 can send suitable control signals to the first feed pump 31 and/or receive them from the first feed pump 31 in order to control the first feed pump 31. In this way, the control device 20 can control the first feed pump 31 depending on measurement signals from the first flow meter 21, so that it is ensured that the control device 20 can precisely control a certain amount of water which is routed in a certain time interval by means of the first feed pump 31 via the liquid pipe 31b...to the mixing node 53.” Ex1010 ¶0023. Buttiker teaches, “the second feed pump 32 is connected to the control device 20 via a (for example bidirectional) data pipe 32', via which the control device 20 can send suitable control signals to the second feed pump 32 and/or receive them from the second feed pump 32 to control the second feed pump 32. In this way, the control device 20 can control the

second feed pump 32 in response to measurement signals from the second flow meter 22 so as to ensure that the control device 20 can precisely control a certain amount of water that is routed in a certain time interval by means of the second feed pump 32 via the liquid pipe 32b...to the mixing node 53.” Ex1010 ¶0024. Ex1002-51-52.

A POSA would have understood that “amount of water which is routed in a certain time interval” is a “flow rate” because a “rate” is a quantity or amount of one thing measured per unit or something else. Ex1002-52. Thus, a POSA having knowledge of Buttiker’s description – that control device 20 precisely controls the amount of water routed in a certain time interval to mixing node 53 by pump 31 and also controls the amount of water routed in a certain time interval to mixing node 53 by pump 32 – would have understood that Buttiker was teaching that his device would generate a desired flow rate of the “resulting solvent.” Ex1002-52. As described in claim 1, the “resulting solvent” is formed by combining the first and second solvents. Ex1001 claim 1; Ex1002-52.

Startz in view of one or more of the knowledge of a POSA, Majer, Porzio, and/or Buttiker renders claim 5 obvious. Ex1002-52.

2. Claim 6

- (a) “The method according to claim 5, further comprising: electronically controlling the first and second thermal modulators with the electronic controller to selectively modulate the temperatures of the first and second solvents, respectively, to generate the selectively desired temperature.”**

Startz does not disclose all the limitations of this claim. As set forth above, section VIII.H, a POSA would have been motivated to combine Startz and Buttiker.

Buttiker discloses electronically controlling the first and second thermal modulators (hot water sources 41 and 42) with the electronic controller (control device 20) to selectively modulate the temperatures of the first and second solvents (water in liquid pipes 31b and 32b), respectively, to generate the selectively desired temperature (brewing temperature selected by the user). Ex1002-53.

In Buttiker, the claimed second solvent is the water in liquid pipe 32a, 32b, 52a, 52b, 52c, which is pumped by second feed pump 32 and thermally modulated by second hot water source 42 to a temperature “higher than the...hot water from the first hot water source 41 and is, for example, above 90°C and preferably above 95°C.” Ex1002-53, Ex1010 ¶0024, 0029.

Regarding the first solvent, Buttiker states, “the hot water produced by the first hot water source 41, which is routed to the brewing unit 60, has an optimal brewing temperature, for example in the range between 90 and 95°C.” Ex1010

¶0029. Buttiker teaches, “a first hot water source 41...designed as a continuous flow heater...” Ex1010 ¶0018. Buttiker teaches, “[T]he first hot water source 41 is connected to the control device 20 via a (for example bidirectional) data pipe 41', via which the control device 20 can send suitable control signals to the first hot water source 41 and/or receive them from the first hot water source 41 in order to control the first hot water source 41...[A] portion of water, which is delivered to the first hot water source 41 via the liquid pipe 31b by means of the first feed pump 31, is heated in the first hot water source 41 to a temperature predetermined by the control device 20.” Ex1010 ¶0027. Buttiker states, “[T]he second hot water source 42 is connected to the control device 20 via a (for example bidirectional) data pipe 42', via which the control device 20 can send suitable control signals to the second hot water source 42 and/or receive them from the second hot water source 42 in order to control the second hot water source 42...[A] portion of water, which is delivered to the second hot water source 42 via the liquid pipe 32b by means of the second feed pump 32, is heated in the second hot water source 42 to a temperature predetermined by the control device 20.” Ex1010 ¶0028. Buttiker states, “[T]he user can use the user interface 15...to determine... the temperature of a portion of the selected hot beverage...” Ex1010 ¶0032. Buttiker states, “[O]ne or more user-selectable values for a parameter Ta can be stored in the data memory S for each of the hot beverages that can be prepared or selected. The

parameter Ta specifies the temperature of the portion of the selected hot beverage which the brewing device 100 is to prepare and dispense.” Ex1010 ¶0036.

Ex1002-53-55.

Startz in view of one or more of the knowledge of a POSA, Majer, Porzio, and/or Buttiker renders claim 6 obvious. Ex1002-55.

**C. Grounds IV and V: Claims 1 and 7 are Anticipated by Coccia;
Claims 1 and 7 are Obvious Over Coccia in View of One or More
of the Knowledge of a POSA, Porzio, and/or Majer**

1. Claim 1

**(a) “A method of generating a desired temperature of an
infused beverage within a brewing assembly
comprising the steps of:”**

Coccia discloses systems and methods for generating a desired temperature of an infused beverage within a brewing assembly. Ex1006-Abstract, ¶0029, Ex1002-55.

Coccia describes, “a coffee machine for producing and dispensing coffee-based beverages.” Ex1006-Abstract. Coccia states, “The water which passes through the layer of coffee has to be heated to a certain temperature and is subject to a certain pressure, the optimum temperature and pressure being selected, among other things, in relation to the starting blend.” Ex1006-¶0003. Coccia confirms, “...‘infusion’ indicates the step of wetting of the coffee powder contained in the filter...” Ex1006-¶0029; Ex1002-55.

(b) “inducing a flow of a first solvent within a first solvent conduit upstream of a brewing chamber in a brewing assembly, the first solvent at a first temperature;”

Coccia discloses inducing a flow of a first solvent (cold water) within a first solvent conduit (cold water duct 8) upstream of a brewing chamber (filter unit 31) in a brewing assembly (dispensing device 13), the first solvent (cold water) at a first temperature. Ex1002-56.

Coccia states, “The water source 2, by means of a duct 3 and a hydraulic pump 4, supplies a heat exchanger 5, also conventional, disposed within the boiler 1. The hydraulic pump 4 is a motor pump actuated by an electronic drive. The output of the heat exchanger 5 supplies heated water via a duct 6 to a mixing point 7 which is also reached by a duct 8 connected to the duct 3 supplying cold water.”

Ex1006-¶¶0037-0038. Coccia states, “Flow calibrators, shown by 9 and 10 respectively, are optionally included on the hot water duct 6 and on the cold water duct 8...These flow calibrators make it possible to regulate the quantity of cold with respect to hot water so as to obtain a flow of mixed water in the supply duct 11 at a supply temperature T1.” Ex1006-¶¶0039-0040. Coccia describes, “The embodiment of FIG. 2 differs from the embodiment of FIG. 1 chiefly in that it comprises a hydraulic pump 35 which is not necessarily of variable speed.”

Ex1006-¶0069; Ex1002-56.

(c) “inducing a flow of a second solvent within a second solvent conduit, separate from the first solvent conduit, upstream of the brewing chamber, and”

Coccia discloses inducing a flow of a second solvent (heated water) within a second solvent conduit (hot water duct 6), separate from the first solvent conduit (duct 8), upstream of the brewing chamber (31). Ex1002-57.

Coccia states, “The water source 2, by means of a duct 3 and a hydraulic pump 4, supplies a heat exchanger 5, also conventional, disposed within the boiler 1. The hydraulic pump 4 is a motor pump actuated by an electronic drive. The output of the heat exchanger 5 supplies heated water via a duct 6 to a mixing point 7 which is also reached by a duct 8 connected to the duct 3 supplying cold water.” Ex1006-¶¶0037-0038. Coccia states, “Flow calibrators, shown by 9 and 10 respectively, are optionally included on the hot water duct 6 and on the cold water duct 8...These flow calibrators make it possible to regulate the quantity of cold with respect to hot water so as to obtain a flow of mixed water in the supply duct 11 at a supply temperature T1.” Ex1006-¶¶0039-0040. Coccia describes, “The embodiment of FIG. 2 differs from the embodiment of FIG. 1 chiefly in that it comprises a hydraulic pump 35 which is not necessarily of variable speed.” Ex1006-¶0069; Ex1002-57.

If the Board determines that the “second solvent” cannot be water when the “first solvent” is water, it would have been obvious to a POSA that two different solvents could (and in certain devices, would) be used in Coccia’s device.

Ex1002-57-58. Other prior art confirms this, as set forth above in the analysis of Majer and Porzio in the section analyzing claim 1(c).

Accordingly, if the “second solvent” cannot be the same as the “first solvent,” a POSA would have known that it would have been obvious to use two different solvents in Coccia’s two different conduits. Ex1002-58.

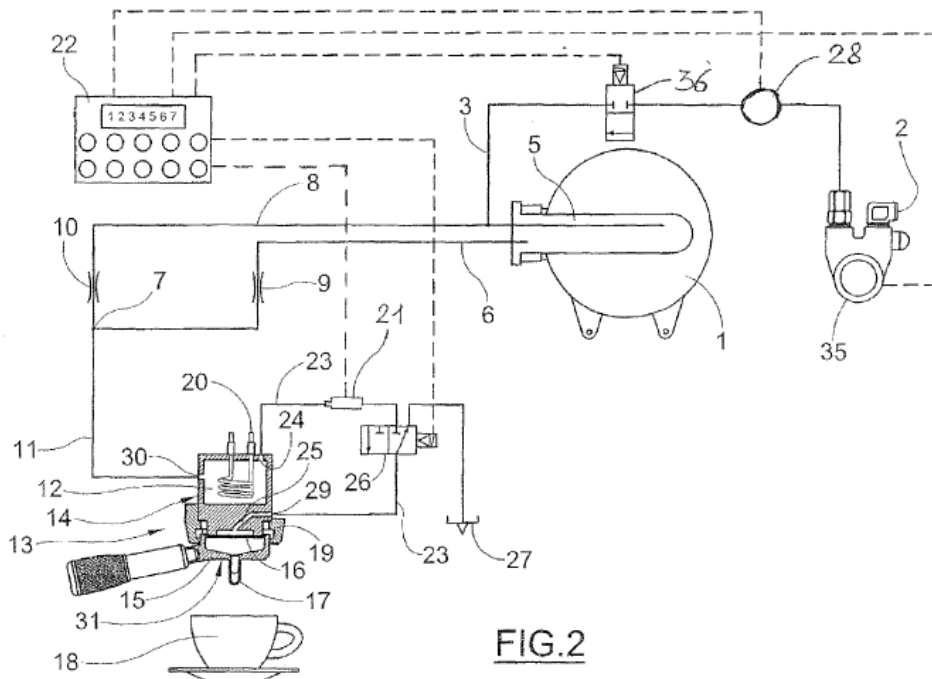
(d) “thermally modulating the second solvent to a second temperature higher and different than the first temperature;”

Coccia discloses thermally modulating (heating with heat exchanger 5 in boiler 1) the second solvent (heated water) to a second temperature (hot) higher and different than the first temperature (cold). Ex1002-58.

Coccia states, “The water source 2, by means of a duct 3 and a hydraulic pump 4, supplies a heat exchanger 5, also conventional, disposed within the boiler 1...The output of the heat exchanger 5 supplies heated water via a duct 6 to a mixing point 7 which is also reached by a duct 8 connected to the duct 3 supplying cold water.” Ex1006-¶¶0037-0038; Ex1002-58.

- (e) **“selectively combining the first and second solvents at a resulting solvent conduit upstream of the brewing chamber to form a resulting solvent at a selectively desired temperature lower than the second temperature;”**

As displayed in Fig. 2 (below), Coccia discloses selectively combining the first and second solvents (cold water in cold water duct 8 and hot water in hot water duct 6) at a resulting solvent conduit (mixing point 7 and supply duct 11) upstream of the brewing chamber (filter unit 31) to form a resulting solvent (mixed water) at a selectively desired temperature (supply temperature T1) lower than the second temperature (hot water). Ex1002-59.



Coccia states, “The output of the heat exchanger 5 supplies heated water via a duct 6 to a mixing point 7 which is also reached by a duct 8 connected to the duct 3 supplying cold water. Flow calibrators, shown by 9 and 10 respectively, are

optionally included on the hot water duct 6 and on the cold water duct 8, upstream of the mixing point 7. These flow calibrators make it possible to regulate the quantity of cold with respect to hot water so as to obtain a flow of mixed water in the supply duct 11 at a supply temperature T1. Downstream of the mixing point 7, the mixed water reaches the dispensing device 13.” Ex1006-¶¶0038-0040. Coccia notes, “The water which passes through the layer of coffee has to be heated to a certain temperature and is subject to a certain pressure, the optimum temperature and pressure being selected...in relation to the starting blend.” Ex1006-¶0003. Ex1002-59-60.

It is inherent based on physics, and a POSA would have recognized, that Coccia’s supply temperature T1 – which is generated by mixing the hot water from duct 6 and cold water from duct 8 – would be lower than the temperature of the hot water in duct 6. Ex1002-60.

(f) “receiving the resulting solvent at the brewing chamber housing a solute at the selectively desired temperature to produce an infused beverage; and”

Coccia discloses receiving the resulting solvent (water at supply temperature T1) at the brewing chamber (filter unit 31) housing a solute (ground coffee / coffee powder) at the selectively desired temperature (supply temperature T1) to produce an infused beverage (coffee / espresso). Ex1002-60.

Coccia teaches an embodiment in which supply duct 11 supplies the water to a heating chamber 12 at temperature T1, then the water is further heated in chamber 12 to a dispensing temperature T2. Ex1006-¶0044. However, Coccia also teaches another embodiment in which the water from supply duct 11 at temperature T1 is not heated further in a heating chamber 12. In this embodiment, Coccia teaches, “[I]n one embodiment the dispensing device [13] does not comprise a heating chamber [12] and the supply duct [11] in fluid communication with the dispensing device [13] supplies water under pressure at the dispensing temperature [T2] to the supply unit. Ex1006-¶0079. Coccia teaches, “The dispensing device 13 comprises a supply unit 14 for discharging the water under pressure to a filter unit 31...” Ex1006-¶0041. Thus, in this embodiment, a POSA would have recognized that $T1=T2$, such that the supply temperature T1 is the same as dispensing temperature T2, and that the resulting solvent is received at the brewing chamber (31) at the selectively desired temperature (T1 a.k.a. T2). Ex1002-60-61. Coccia teaches, “Espresso coffee is in particular a beverage obtained using a coffee machine which forces hot water to pass through a layer of ground coffee, i.e. coffee powder, contained in an infusion container, generally a metal filter.” Ex1006-¶0003, ¶0019 (“...the coffee contained in the filter...”), ¶0025 (“...the filter unit which contains the ground coffee...”), ¶0026 (“The present invention...comprising a filter unit apt to contain coffee powder and a

supply unit apt to introduce water into the filter unit...”). Ex1002-60-61.

(g) “discharging the infused [beverage] through an outlet on the beverage assembly.”

The only antecedent use of the term “infused” within claim 1 is in the preamble that recites “an infused beverage.” Petitioner therefore interprets “the infused” as a reference back to “an infused beverage.”

Coccia discloses discharging the infused beverage (coffee / espresso) through an outlet (nozzle 17) on the beverage assembly. Ex1002-62.

Coccia teaches, “The dispensing device 13 comprises...a nozzle 17 for dispensing the coffee under which a collection cup 18 is disposed in operation.” Ex1006-¶0041. Ex1002-62.

Coccia anticipates claim 1 and/or renders claim 1 obvious in view of one or more of the knowledge of a POSA, Porzio, and/or Majer. Ex1002-62.

2. Claim 7

- (a) “The method according to claim 1, further comprising: electronically controlling at least one pump with an electronic controller to selectively modulate the flows of the first and second solvents, respectively, to generate a desired flow rate of the resulting solvent.”**

Coccia discloses electronically controlling at least one pump (4, 35) with an electronic controller (control unit 22) to selectively modulate the flows of the first and second solvents (cold water and hot water), respectively, to generate a desired flow rate of the resulting solvent (water at supply temperature T1). Ex1002-63.

Coccia discloses, “[A] control unit 22 such as an electronic central processing unit (CPU).” Ex1006-¶0048. Coccia states, “The hydraulic circuit is preferably provided with a flow rate measurement device 28 apt to measure the flow of water passing through it. The device 28 is connected to the control unit 22 to which it sends a signal representative of the measured flow rate of water. For example, the device 28 supplies the control unit 22 with electrical pulses whose number is proportional to the quantity of water passing through it in accordance with a metering constant expressed in cm³/pulse.” Ex1006-¶0054. Coccia states, “In the embodiment of FIG. 1, the device [28] is disposed on the cold water duct 3 downstream of the pump 4. The frequency with which the control unit receives these pulses is directly proportional to the flow rate of water supplied to the hydraulic circuit by the pump 4 and therefore to the dispensing device.” Ex1006-

¶0056. Coccia states, “The pump is, for example, actuated by a variable frequency electronic drive, whose frequency variation corresponds to a variation of the speed of rotation of the pump. In this way it is possible to vary the flow of water supplied by the pump to the duct 3 and therefore the water pressure.” Ex1006-¶0057.

Coccia states, “The pump, or the electronic control unit connected to the pump motor, is connected to the control unit 22 which regulates the speed of rotation of the pump and therefore the pressure of the water supplied to the hydraulic circuit.

A flow of water and a ‘nominal’ pressure of the water supplied to the hydraulic circuit correspond to a speed of rotation of the pump actuated for a given period of

time.” Ex1006-¶¶0058-0059. Coccia states, “The flow of water supplied by the pump as a function of the dispensing pressure detected may be regulated manually by an operator and/or by means of an automatic regulation in which the signals received by the pressure sensor and the electronic control device of the pump form a feedback loop controlled by the control unit.” Ex1006-¶0060. Coccia states,

“When it detects a flow which does not correspond to the optimum flow value, the control unit adjusts the speed of rotation of the pump until the flow reaches the

optimum value.” Ex1006-¶0062. Coccia states, “The control unit may be

operationally associated with a display and an input device such as a keyboard

which may be operated by an operator in order to control and/or modify the flow of water supplied to the hydraulic circuit and therefore the dispensing pressure.”

Ex1006-¶0064. Ex1002-63-65.

Accordingly, Coccia in view of the knowledge of a POSA, Majer, and/or Porzio renders claim 7 obvious. Ex1002-65.

D. Ground VI: Claim 8 is Obvious Over Coccia in View of One or More of the Knowledge of a POSA, Buttiker, Giuliano, Porzio, and/or Majer

1. Claim 8

- (a) “The method according to claim 1, further comprising: electronically controlling a thermal modulator with an electronic controller to selectively modulate the temperature of the second solvent to generate the selectively desired temperature.”**

Coccia discloses electronically controlling a thermal modulator (Giuliano’s heater 22) with an electronic controller (Giuliano’s electronic control 2) to selectively modulate the temperature of the second solvent (hot water in duct 6) to generate the selectively desired temperature (supply temperature T1). Ex1002-65.

Coccia teaches that the temperature is modulated by a heat exchanger 5 disposed within a boiler 1. Ex1006-¶0037. As set forth above, in the analysis of claim elements 1(d) and 1(e), Coccia discloses modulating the temperature of the second solvent to generate the selectively desired temperature. Ex1002-65.

In discussing one of the embodiments of the invention, using multiple heat exchangers within a boiler, Coccia states, “It will be appreciated that the heat

sources may be independent primary heaters, for example of the type disclosed in WO 91/07898.” Ex1006-¶0088. WO 91/07898 (“Giuliano”) is provided herewith as Ex1005. As set forth above, section VIII.H, Coccia’s statement would have motivated a POSA to combine Coccia and Giuliano, and a POSA would have been motivated to combine Coccia and Giuliano and/or Buttiker. Ex1002-65-66.

Giuliano states, “Associated with each heater 22 in the machine 1 is a temperature sensor 37, for sensing the water temperature and issuing, over a lead 38, a signal proportional to the temperature sensed. The electronic apparatus 2 has a storage and comparator unit 39 which is supplied once for all with predetermined temperature increments and continuously with the temperature sensed to stepwise reduce down to zero the electric power dissipated through the resistor 23 on the sensed temperature passing said step values.” Ex1005-6. Giuliano states, “Also provided in the electronic control 2 is an AND-type logic unit 41 for activating the resistor 23 of the heater 22 associated with each dispensing body 5 concurrently with the operation of its respective key 3a in the keyboard 3 to dispense a dose of espresso coffee.” Ex1005-7. Giuliano states, “With the resistor 23 activated, the optimum temperature is attained accurately for the water by the stepwise control of the power supply to the resistor 23 as the sensed temperature approached the desired value. On reaching the optimum temperature, the machine is ready to dispense coffee.” Ex1005-7. Ex1002-66.

Alternatively, Buttiker discloses electronically controlling a thermal modulator (hot water source 42) with an electronic controller (control unit 20) to selectively modulate the temperature of the second solvent (water in conduit 32b, 52a, 52b, 52c) to generate the selectively desired temperature (temperature Ta). Ex1002-66-67.

Buttiker states, “[T]he brewing device is equipped with a control device 20, which can be designed as a microprocessor...” Ex1010 ¶0019. Buttiker teaches, “second hot water source 42, which is also designed as a continuous flow heater...” Ex1010 ¶0020. Buttiker states, “the second hot water source 42 is connected to the control device 20 via a (for example bidirectional) data pipe 42', via which the control device 20 can send suitable control signals to the second hot water source 42 and/or receive them from the second hot water source 42 in order to control the second hot water source 42. The control device 20 is set up to control the second hot water source 42 via the data pipe 42' in such a way that in each case a portion of water, which is delivered to the second hot water source 42 via the liquid pipe 32b by means of the second feed pump 32, is heated in the second hot water source 42 to a temperature predetermined by the control device 20.” Ex1010 ¶0028. Buttiker states, “[O]ne or more user-selectable values for a parameter Ta can be stored in the data memory S for each of the hot beverages that can be prepared or selected. The parameter Ta specifies the temperature of the portion of

the selected hot beverage which the brewing device 100 is to prepare and dispense.” Ex1010 ¶0036. Buttiker teaches, “The control unit 20 controls the temperature of the portion of hot water from the second hot water source 42 depending on the value selected by the user for the parameter Ta...” Ex1010 ¶0042. Buttiker states, “[T]he control device 20 is connected via a data pipe 15' to an operating interface 15...When selecting the hot beverage, the user can use the user interface 15 not only to determine the type of hot beverage selected (e.g., espresso, ristretto, cappuccino, or the like), but also to determine other parameters, such as the amount (or volume) desired by the user and/or the temperature of a portion of the selected hot beverage to be prepared and dispensed by the brewing device 100.” Ex1010 ¶0032. Ex1002-67-68.

Accordingly, Coccia anticipates claim 8 and/or renders claim 8 obvious in view of the knowledge of a POSA, Giuliano, Buttiker, Majer and/or Porzio. Ex1002-68.

E. Ground VII: Claims 9 and 10 are Obvious Over Coccia in View of One or More of the Knowledge of a POSA, Buttiker, Giuliano, Porzio, and/or Majer

1. Claim 9

- (a) “The method according to claim 8, further comprising: thermally modulating the first solvent in the first solvent conduit to the first temperature with a second thermal modulator; and”**

Coccia does not disclose thermally modulating both first and second solvents. As set forth above, section VIII.H, a POSA would have been motivated to combine Coccia and Buttiker.

Buttiker discloses thermally modulating the first solvent (water in liquid pipe 31b) in the first solvent conduit (liquid pipe 31b) to the first temperature (between 90 and 95°C) with a second thermal modulator (hot water source 41).

Ex1002-68-69.

In Buttiker, the claimed second solvent is the water in liquid pipe 32a, 32b, 52a, 52b, 52c, which is pumped by second feed pump 32 and thermally modulated by second hot water source 42 to a temperature “higher than the...hot water from the first hot water source 41 and is, for example, above 90°C and preferably above 95°C.” Ex1002-69, Ex1010 ¶0024, 0029.

Regarding the first solvent, Buttiker states, “the hot water produced by the first hot water source 41, which is routed to the brewing unit 60, has an optimal

brewing temperature, for example in the range between 90 and 95°C.” Ex1010

¶0029. Buttiker teaches, “a first hot water source 41...designed as a continuous flow heater...” Ex1010 ¶0018. Buttiker teaches, “the control device 20 can precisely control a certain amount of water which is routed in a certain time interval by means of the first feed pump 31 via the liquid pipe 31b to the first hot water source 41 and from the first hot water source 41 via the hot water feed pipes 51a and 51b to the brewing unit 60 and further through the brewing unit 60 and the brewing unit output pipe 51c to the mixing node 53.” Ex1010 ¶0023. Ex1002-69.

Coccia in view of one or more of the knowledge of a POSA, Buttiker, and/or Giuliano describe a thermal modulator that meets this limitation. Ex1002-68-69.

(b) “electronically controlling a second thermal modulator with the electronic controller to selectively modulate the temperature of the first solvent to generate the selectively desired temperature.”

Buttiker discloses electronically controlling a second thermal modulator (first hot water source 41) with the electronic controller (control device 20) to selectively modulate the temperature of the first solvent (water in liquid pipe 31b) to generate the selectively desired temperature (brewing temperature selected by user). Ex1002-70.

Buttiker teaches, “[T]he first hot water source 41 is connected to the control device 20 via a (for example bidirectional) data pipe 41', via which the control

device 20 can send suitable control signals to the first hot water source 41 and/or receive them from the first hot water source 41 in order to control the first hot water source 41...[A] portion of water, which is delivered to the first hot water source 41 via the liquid pipe 31b by means of the first feed pump 31, is heated in the first hot water source 41 to a temperature predetermined by the control device 20.” Ex1010 ¶0027. Buttiker states, “[T]he user can use the user interface 15...to determine... the temperature of a portion of the selected hot beverage...” Ex1010 ¶0032. Buttiker states, “[O]ne or more user-selectable values for a parameter Ta can be stored in the data memory S for each of the hot beverages that can be prepared or selected. The parameter Ta specifies the temperature of the portion of the selected hot beverage which the brewing device 100 is to prepare and dispense.” Ex1010 ¶0036. Ex1002-70-71.

Coccia in view of one or more of the knowledge of a POSA, Buttiker and/or Giuliano renders claim 9 obvious. Ex1002-71.

2. Claim 10

- (a) **“The method according to claim 9, further comprising: electronically controlling at least one pump with an electronic controller to selectively modulate the flows of the first and second solvents, respectively, to generate a desired flow rate of the resulting solvent.”**

Buttiker discloses electronically controlling at least one pump (31 and/or 32)

with an electronic controller (20) to selectively modulate the flows of the first and second solvents (water in conduits 31b, 51a, 51b and water in conduits 32b, 52a, 52b), respectively, to generate a desired flow rate (flow per unit of time) of the resulting solvent (mixed water). Ex1002-71.

Buttiker teaches, “[F]irst feed pump 31 creates part of a brewing water feed device and is connected to a hot water feed pipe 51a via a liquid pipe 31b and a first hot water source 41...” Ex1010 ¶0018. Buttiker states, “the first feed pump 31 is connected to the control device 20 via a (for example bidirectional) data pipe 31', via which the control device 20 can send suitable control signals to the first feed pump 31 and/or receive them from the first feed pump 31 in order to control the first feed pump 31. In this way, the control device 20 can control the first feed pump 31 depending on measurement signals from the first flow meter 21, so that it is ensured that the control device 20 can precisely control a certain amount of water which is routed in a certain time interval by means of the first feed pump 31 via the liquid pipe 31b...to the mixing node 53.” Ex1010 ¶0023. Buttiker teaches, “the second feed pump 32 is connected to the control device 20 via a (for example bidirectional) data pipe 32', via which the control device 20 can send suitable control signals to the second feed pump 32 and/or receive them from the second feed pump 32 to control the second feed pump 32. In this way, the control device 20 can control the second feed pump 32 in response to measurement signals from

the second flow meter 22 so as to ensure that the control device 20 can precisely control a certain amount of water that is routed in a certain time interval by means of the second feed pump 32 via the liquid pipe 32b...to the mixing node 53.”

Ex1010 ¶0024. Ex1002-71-72.

A POSA would have understood that “amount of water which is routed in a certain time interval” is a “flow rate” because a rate is a quantity or amount of one thing measured per unit or something else. Ex1002-72. Thus, a POSA having knowledge of Buttiker’s description – that control device 20 precisely controls the amount of water routed in a certain time interval to mixing node 53 by pump 31 and also controls the amount of water routed in a certain time interval to mixing node 53 by pump 32 – would have understood that Buttiker was teaching that his device would generate a desired flow rate of the “resulting solvent.” Ex1002-72-73. As described in claim 1, the “resulting solvent” is formed by combining the first and second solvents. Ex1001 claim 1; Ex1002-73.

Coccia in view of one or more of the knowledge of a POSA, Buttiker and/or Giuliano renders claim 10 obvious. Ex1002-73.

X. Mandatory Notices

A. Real Party-In-Interest

Decent Espresso International Ltd. is the real party-in-interest.

B. Related Matters

Patent Owner asserted the '271 patent against Petitioner in *Duvall Espresso IP Enforcement, LLC v. Decent Espresso International Ltd. et al.*, Case No. 9:23-cv-81246-DMM (S.D. Fla.). This case has been stayed pending resolution of petitions for inter partes review. Though this case was filed in 2023, the 271 patent was not added to any complaint until the filing of the second amended complaint on October 25, 2024.

C. Counsel

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Petitioner consents to email delivery on lead and backup counsel.

XI. Conclusion

Based on the foregoing, claims 1-10 of the '271 patent are unpatentable, and
Petitioner requests institution of an *inter partes* review to cancel them.

Respectfully submitted,

By: /s/ Perry S. Clegg/

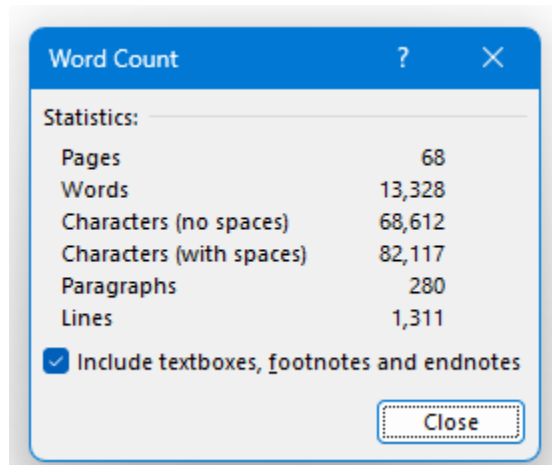
Perry S. Clegg, Reg. No. 65,304

Appendix of Exhibits for IPR2025-00747 - U.S. Patent 11,957,271

Exhibit	Description
1001	U.S. Patent No. 11,957,271
1002	Declaration of Ian Tinkler, dated March 17, 2025
1003	U.S. Patent No. 8,973,487 B2 (collectively with Ex1004, “Startz”)
1004	U.S. Patent Application Publication No. 2012/0291634A1 (collectively with Ex1003, “Startz”)
1005	International Publication No. WO1991/007898A1 (“Giuliano”)
1006	U.S. Patent Application Publication No. 2011/0097454A1 (“Coccia”)
1007	Declaration Certifying Translation of European Patent Publication EP 2 612 577 A1
1008	International Publication No. WO2011/151703A2 (“Majer”)
1009	European Patent Publication EP 2 612 577 A1 (“Buttiker”)
1010	Translation of European Patent Publication EP 2 612 577 A1
1011	International Publication No. WO2011/158131A1 (“Porzio”)
1012	File History for U.S. Patent Application Serial No. 61/742,688
1013	File History for U.S. Patent Application Serial No. 18/109,177
1014	U.S. Patent No. 10,772,456
1015	Patent Owner Infringement Contention Pleading
1016	Patent Owner Claim Chart for 271 Patent

CERTIFICATE OF COMPLIANCE REGARDING WORD COUNT

I hereby certify that the foregoing, Petition for *Inter Partes* Review of U.S. Patent 11,957,271, contains 13,328 words as measured by the word processing software used to prepare the document, in compliance with 37 C.F.R. § 42.24 (d), and excluding the table of contents, mandatory notices, certificate of service, certificate of compliance regarding word count, and appendix of exhibits.



Respectfully submitted,

By: /s Perry S. Clegg/

Perry S. Clegg, Reg. No. 65,304

CERTIFICATE OF SERVICE

I hereby certify that on March 17, 2025, I caused a true and correct copy
of the foregoing materials:

- Petition for Inter Partes Review
- Certificate of Compliance Regarding Word Count
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- Fee Authorization
- Exhibits 1001-1016

to be served via FedEx on the following correspondence address as listed on
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