Dynamic Drinkware-type Analysis for Mestas

Mestas (U.S. Patent Publication No. 20140244009) ("Mestas-009") is effective as prior art to the '147 Patent under AIA 35 U.S.C. § 102(a)(2). *See* AIA 35 U.S.C. §102(d)(2). Because, as further explained in the Petition, the described subject matter of Mestas-009 is identical to that of its provisional application, Mestas's disclosures were effectively filed as of Mestas's provisional application, and Mestas is thus available as a patent prior art reference under 35 U.S.C. §102(a)(2) as of its provisional filing date of February 22, 2013. *See* AIA 35 U.S.C. §102(d)(2); *Penumbra, Inc. v. RapidPulse, Inc.*, IPR2021-01466, Paper 34 (PTAB Mar. 10, 2023) (precedential as to section II.E.3)

Nonetheless, Petitioner presents herein for completeness a pre-AIA analysis of Mestas as prior art under the standard enunciated in *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375 (Fed. Cir. 2015). Under pre-AIA law, to determine the critical date for a prior art patent application publication, the publication may claim the priority date of a provisional application "only if at least one of the claims in the patent is supported by the written description of the provisional application in compliance with pre-AIA 35 U.S.C. § 112, first paragraph." MPEP § 2136.03 (citing *Dynamic Drinkware*, 800 F.3d 1375 (Fed. Cir. 2015)). As demonstrated below, Mestas-009 is entitled to the priority date from its corresponding provisional application because the provisional application discloses

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sufficient written description in support of at least independent claims 1 and 10 of Mestas-009.

Mestas-009 was filed on February 21, 2014 and claims priority from its corresponding provisional application (U.S. Provisional Pat. App. No. 61/768,279 to Mestas) ("Mestas-279") filed on February 22, 2013. Mestas-009 is essentially identical to its provisional application filing Mestas-279. *See generally* Ex-1010 (published Mestas publication); Ex-1011 (provisional application).

Regarding the specifications, the only difference between Mestas-009's and Mestas-279's is that Mestas-009 separately numbers all paragraphs in the Brief Description of Drawings, whereas the provisional does not. *Compare* Ex-1010 ¶¶9-137 with Ex-1011 ¶7. Importantly, the specific subject matter relied upon in Mestas-009 by Petitioner was filed in Mestas-279. Petitioner relies on Mestas-009 for its teaching a rigid-flex printed circuit board (PCB) and cites paragraphs 164, 170, 172, 177, 181, and Figures 14 and 15 in support. The contents of the cited paragraphs correspond to Mestas-279's paragraphs 33, 39, 41, 46, 50, respectively, and Figures 14 and 15 of Mestas-009 are identical to Figures 14 and 15 of Mestas-279.

The vast majority of the figures in Mestas-009 describing the invention are present in Mestas-279, with minor variations in the number of components and quality of graphics. For example, Figure 14 of Mestas-009 and Figure 14 of Mestas-279 are essentially identical:

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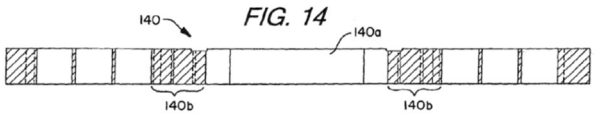
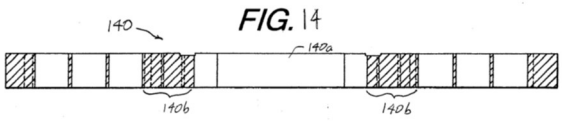


Ex-1010, Fig. 14



Ex-1011, Fig. 14

The specification of Mestas-279 supports at least Mestas-009's independent claims 1 and 10 as required by MPEP § 2136.03 and relevant Federal Circuit case law. The following table correlates the claim elements of Mestas-009, claim 1 to the disclosures in the Mestas-279 specification.

	Mestas-009, Claim 1	**Mestas-279 Specification**
[pre/a]	1. A non-transitory computer readable medium storing instructions that, when executed, cause an apparatus to:	"In one example, completion of the evaluation mode may include connecting the device to a computing device and synchronizing the data with the computing device. The device may synchronize wirelessly (or using a wired connection) with a mobile device in some arrangements. The computing device and/or software executing thereon may subsequently transmit a signal to the device activating the activity goal setting mode." ¶87. "In one example, software and applications described herein may be embodied as computer readable instructions stored in computer readable media." ¶300.
[b]	detect activity performed by a user for an activity competition; and	"To encourage athletic performance, users may compete with one another. For example, a user may compete with another user to see which user can accumulate the most activity points, calories burned, miles run or the like in a day or other predefined time frame. Activity points may be accumulated based on a user's physical movement or activity during the period of

		time. For example 1 point may be earned for every 20 calories burned. In another example, 1 point may be earned for every 0.25 mile run. Various types of conversion factors may be used. In other arrangements, the competition measure may be the activity metric (e.g., miles, calories, heart rate, etc.). In such cases, other types of activities that are not measured according to the athletic statistic may need to be converted prior to being counted towards the total or might not be counted toward the competition." ¶137.
[c]	determine that the activity performed by the user has been registered toward the activity competition only upon determining that activity data corresponding to the detected activity has been synchronized with at least one other apparatus.	"Aspects described herein provide a system whereby competitions may be defined between a plurality of users. The competition may be user, device and/or activity type specific. In other examples, the competition might only register a user's activity if the activity data is synchronized to a specified system, site, device, etc." ¶5. "The competitor data (e.g., an amount of calories burned, a number of activity points earned, etc.) may be synchronized through a remote network system and/or directly between the user's wearable devices." ¶138.

The following table correlates the claim elements of Mestas-009, claim 10 to the disclosures in the Mestas-279 specification.

	Mestas-009, Claim 10	**Mestas-279 Specification**
[pre/a]	10. A method comprising:	"A physical activity monitoring method and system may include a competition component requiring users to compete based on various metrics." Abstract. "While aspects of the invention generally have been described above, the following detailed description, in conjunction with

		the Figures, provides even more detailed examples of athletic performance monitoring systems and methods in accordance with examples of this invention." ¶147. "Other methods and techniques for determining an activity type may also be used." ¶369. "While the invention has been described with respect to specific examples including presently preferred modes of carrying out the invention, those skilled in the art will appreciate that there are numerous variations and permutations of the above described systems and methods." ¶430.
[b]	detect activity performed by a user for an activity competition; and	"To encourage athletic performance, users may compete with one another. For example, a user may compete with another user to see which user can accumulate the most activity points, calories burned, miles run or the like in a day or other predefined time frame. Activity points may be accumulated based on a user's physical movement or activity during the period of time. For example 1 point may be earned for every 20 calories burned. In another example, 1 point may be earned for every 0.25 mile run. Various types of conversion factors may be used. In other arrangements, the competition measure may be the activity metric (e.g., miles, calories, heart rate, etc.). In such cases, other types of activities that are not measured according to the athletic statistic may need to be converted prior to being counted towards the total or might not be counted toward the competition." ¶137.
[c]	determine that the activity performed by the user has been registered toward the activity competition only	"Aspects described herein provide a system whereby competitions may be defined between a plurality of users. The competition may be user, device and/or

	upon determining that activity data corresponding to the detected activity has been synchronized with at least one other apparatus.	activity type specific. In other examples, the competition might only register a user's activity if the activity data is synchronized to a specified system, site, device, etc." ¶5. "The competitor data (e.g., an amount of calories burned, a number of activity points earned, etc.) may be synchronized through a remote network system and/or directly between the user's wearable devices." ¶138.

Thus, claims 1 and 10 of Mestas-009 are supported by the written description of Mestas-279. Because "at least one of the claims in [Mestas-009] is supported by the written description of [March-279]" (MPEP § 2136.03), Mestas-009 correctly claims the benefit of Mestas-279's filing date of February 22, 2013 even under the *Dynamic Drinkware* standard. Therefore, Mestas-009 is prior art to the '147 Patent under at least § 102(a)(2).