

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Hangzhou Taihe Trading Co., Ltd. & Ningbo Likeju Trading Co., Ltd.
Petitioner

v.

EP Family Corp.
Patent Owner

Design Patent No. D934,012
Case No. 2023-0658

**PETITIONERS' SUR-REPLY TO
PATENT OWNER'S REPLY TO OPPOSITION TO MOTION TO AMEND**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Patent Owner Fails to Show Its Motion to Amend Complies with 37 C.F.R. § 42.121.....	1
III.	Patent Owner Admits the Figures are Inconsistent	5
IV.	Patent Owner Fails to Rebut Petitioners’ Showing of Unpatentability.....	7
	A. Patent Owner’s Arguments Regarding Unamended Features Fail	7
	B. Patent Owner’s Arguments Regarding Added Tenons/Holes Fail	11
V.	Conclusion	12

LIST OF EXHIBITS

<u>Exhibit</u>	<u>Description</u>
Ex. 1001	U.S. Design Patent No. D934,012 to Chang (“the ’012 patent”)
Ex. 1002	Declaration of Expert Witness Paul Hatch (“Hatch”)
Ex. 1003	Resume and Prior Testimony of Paul Hatch
Ex. 1004	U.S Patent No. 476,400 to Morgan et al. (“ <i>Morgan</i> ”)
Ex. 1005	Spanish Industrial Design No. I146513 to Muebles Bordonabe, S.A. (“ <i>Bordonabe Furniture</i> ”)
Ex. 1006	U.S. Design Patent No. D424,325 to Iannaccone (“ <i>Iannaccone</i> ”)
Ex. 1007	Ikea, <i>Table Galant</i> - \$149.00 / pieces (“ <i>Galant</i> ”)
Ex. 1008	Affidavit of Nathaniel E. Frank-White
Ex. 1009	Complaint, Dkt. 1 in <i>EP Family Corp. v. Changzhou Win Up Time Tech. Co</i> , Case No. 2:22-cv-08192 (C.D. Cal.)
Ex. 1010	Amazon product page for accused product, ASIN# B09JSBL7LH
Ex. 1011	Supplemental Declaration of Paul Hatch (“Hatch Suppl.”)
Ex. 1012	U.S. Patent No. 543,609 to Carter (“ <i>Carter</i> ”)
Ex. 1013	EVANS BROS. LONDON, JOINTS IN WOODWORK (3d ed. 1920)
Ex. 1014	United States Patent No. 666,435 to Oliver (“ <i>Oliver</i> ”)
Ex. 1015	United States Patent No. 1,766,694 to Siskin (“ <i>Siskin</i> ”)
Ex. 1016	Highlighted Version of Patent Owner’s MTA Reply

I. Introduction

Patent Owner’s Reply to Petitioners’ Opposition to the Motion to Amend (“MTA Reply”) is filled with evidence and argument that should have been presented earlier. Even considering such evidence, the MTA Reply (1) fails to show that the motion to amend complies with the statutory requirements and (2) fails to show that the amended claim is not indefinite. Finally, Patent Owner’s conclusory, unsupported arguments lack credibility and fail to rebut Petitioners showing of unpatentability.

II. Patent Owner Fails to Show Its Motion to Amend Complies with 37 C.F.R. § 42.121

Patent Owner bore the burden of meeting the regulatory and statutory requirements for its motion to amend but failed to submit any argument or evidence regarding the ornamentality of the added holes and tenons. Patent Owner cannot remedy this failure for the first time on reply. *See, e.g., Neuroderm Ltd. v. Abbvie Inc.*, Case PGR2022-00040, Paper 77 at 24 n. 10 (P.T.A.B. Oct. 31, 2023).

Even if the Board considers Patent Owner’s late-submitted evidence, it only confirms that holes and tenons are functional in nature. For example, Exhibit 2008 expressly states that, in the context of “[j]oint[s],” the “design must primarily be functional.” Exhibit 2008 at 210. Exhibit 2008 goes on to state that “[m]ost joints are designed to conceal the methods used to hold the parts together, while others, such as decorative dovetails, are made a feature.” *Id.* This further confirms that

the added tenons and dowels, which are designed to be concealed in the assembled table, are not “decorative” or ornamental in nature.

Similarly, Ex. 2009 states that “[j]oinery is an ancient craft” and gives examples of “decorative joinery,” all of which are visible—and not concealed—in the finished product. Ex. 2009 at 8, 89-95. Likewise, Ex. 2011 explains that its example of mortise-and-tenon is to “allow for” cross-grain wood movement, which is an entirely functional consideration. Finally, Ex. 2012 at 66 shows “decorative plugs” that are visible in the final wood box, unlike Patent Owner’s hidden tenons.

Patent Owner offers only two arguments for why the added tenons/holes are ornamental, but both fail to carry Patent Owner’s burden. First, Patent Owner argues that the mere existence of alternative methods of joinery is sufficient to make the added tenons ornamental. Patent Owner’s expert appears to erroneously rely on this principle as dispositive, stating that “[b]ased on this statement of the relevant law, it is my opinion that the choice of a specific method from the many possible methods of joining two table top portions well known in the art would be an ornamental rather than functional choice.” Ex. 2006 at ¶ 49 (emphasis added). But that is not the law. Existence of multiple methods is merely a factor. Otherwise, every screw, nail, paperclip, and staple would become an ornamental feature. Noticeably missing from Patent Owner’s reply, however, is any rationale

for why the specific holes and tenons added to its claim—hidden and used in their ordinary manner—are ornamental rather than functional.

Patent Owner’s own expert further confirms that joints serve a purely functional purpose. For each example joint, Patent Owner’s expert provided a *specific* functional purpose. Ex. 2006 at ¶ 25 (Blind Mortise and Tenon Joints are “strong and versatile”), ¶ 28 (Biscuit Joint “is a quick and easy method for aligning and joining”), ¶ 31 (Pocket Hole Joint is “fast and simple method for joining two pieces of wood at any angle), ¶ 34 (Tongue and Groove results in the “tongue fit[ting] snugly into the groove, creating a strong, flush joint”), ¶ 37 (Beadlock Joint creates a “strong, mechanical connection”), ¶ 40 (Clamex P14 connectors are good “where quick and easy assembly and disassembly are required”), ¶ 43 (Tenso P14 connectors are known for their “ease of use and ability to create strong, invisible joints”). Despite providing *specific* functional rationales for choosing each joint, he only provided generic “aesthetic reasons” for choosing holes and tenons. *Id.* at ¶ 47 (citing generic reasons like “historical and traditional designs”).

Second, Patent Owner points to Federal Circuit law holding that an article that is not exposed during use can be the subject of a design patent. This is true. Patent Owner misconstrues Petitioners’ argument and sets up a straw man to knock down. Petitioners did not assert in their opposition that the hidden tenons and holes are *pre se* unpatentable simply because they are hidden. Rather, Petitioners

supported their argument that the tenons and holes are not decorative or ornamental because they are not even visible to end-users when the table is assembled and in its “environment of use.” See ’012 Patent at Fig. 23, Description.

Though Patent Owner points to caselaw that says hidden features *can potentially* be the subject of design patent protection, it offers no evidence or reasoning why its particular features—hidden tenons/holes—are ornamental rather than functional. This is particularly problematic where the newly-claimed features are holes and tenons arranged as they ordinarily have been for centuries, equally spaced along a joined edge to provide stability.¹ Even Patent Owner’s own evidence shows the typicality of equally-spaced dowels.



Ex. 2008 at 229. Patent Owner’s expert similarly agrees that using tenons/holes is a “well-known” method. See, e.g., Ex. 2006 at ¶ 46. Patent Owner provides no

¹ In connection with obviousness, Patent Owner barely disputes (beyond a bare assertion) that equally spacing dowels along a tabletop would have been obvious. Instead, Patent Owner expressly admits that one of skill would understand “how the tenons and holes should be positioned . . .” MTA Reply at 7.

reasoning for why dowels/holes—hidden and arranged ordinarily as they have been for centuries—is a matter of concern for consumers.

While it’s true that hidden features *can be* subjects of a design patent, that mere fact is not enough to render functional elements ornamental. Here, the undisputed fact that the tenons and holes are not visible when the assembled tabletop is in its “environment of use” further underscores and confirms their entirely functional nature.

III. Patent Owner Admits the Figures are Inconsistent

Patent Owner admits that Figs. 1-8 show the top portion of the tabletop and only Fig. 8 shows the tenons. Reply, Paper 14 at 7. Nonetheless, Patent Owner says, without reasoning, that the lack of tenons in Figs. 1-5, where they *should be visible*, does not affect the understanding of a person of ordinary skill in the art. Patent Owner’s expert also acknowledges that “Figs. 1, 2 and 3 do not show tenons” but nonetheless concludes, also without any reasoning at all, that “it is clear that tenons are included in the top portion of the tabletop.” Ex. 2006 at ¶ 54.

Neither Patent Owner nor its expert provides any reasoning or explanation for why the inconsistent drawings do not matter. Instead, Patent Owner simply makes the bare assertion that that “the location of the tenons in the top portion of the table top is clear to one of ordinary skill in the art.” *Id.* at 7. But it is not the location of the tenons that lacks clarity. As Petitioners explained, the lack of

tenons in the majority of figures—figures in which they should be visible—results in lack of clarity regarding the *scope* of the claim (i.e., whether tenons are *claimed* and required for infringement). Opposition, Paper 13 at 4-6.

Confusingly, the description of the patent continues to say that the “[t]he broken lines of the tenons in FIG. 8 illustrate environment that form no part of the claimed design” and does not mention claiming any tenons. Ex. 1001 at 1.

Despite having the opportunity to submit a revised motion to amend, Patent Owner nonetheless chose not to change this language.

Patent Owner’s bare assertion that the “lack of tenons visible in Figs. 1, 2, and 3 do not impact [the] clear understanding” that “tenons are included in the first, top portion of the table top” (Reply, Paper 14 at 7) not only lacks supportive reasoning, but is also contrary to Patent Office guidance. M.P.E.P. § 1503.02 unambiguously states: “As the drawing or photograph constitutes the entire visual disclosure of the claim, ***it is of utmost importance that the drawing or photograph be clear and complete, and that nothing regarding the design sought to be patented is left to conjecture.***” M.P.E.P. § 1503.02 (emphasis added). Yet leaving to conjecture whether the amended design actually claims/requires tenons is exactly what Patent Owner does by including tenons in only a single figure (Fig. 8) and omitting them from the majority of views where they should be visible.

Thus, the Board should reject the amended claim as indefinite.

IV. Patent Owner Fails to Rebut Petitioners’ Showing of Unpatentability

Patent Owner’s bare assertions regarding patentability can be divided into two categories. First, Patent Owner makes various assertions regarding patentability that do not relate in any way to the holes and tenons added in its motion to amend. These arguments have been waived, and in any event, are legally and factually insufficient to rebut Petitioner’s showing of unpatentability. Second, Patent Owner makes several conclusory arguments regarding patentability that relate to the added holes/tenons. These undeveloped arguments also fail.

A. Patent Owner’s Arguments Regarding Unamended Features Fail

Regarding the first category (arguments that do not relate to the motion to amend), Patent Owner shoots a scattershot barrage of conclusory assertions regarding the primary references, arguing that they do not form the same visual impression as the claimed tabletop. As a threshold matter, these arguments have been waived and are the subject of Petitioner’s pending motion to strike (Paper 17).

Even if the Board were to consider Patent Owner’s waived arguments, they should nonetheless be rejected because they are legally unsupported. For example, Patent Owner says the “legs and other mechanical features of *Morgan*” differ from the design “disclosed” (but not claimed) in the ’012 patent. MTA Reply at 9. But the legs and mechanical features of *Morgan* are not relevant features for

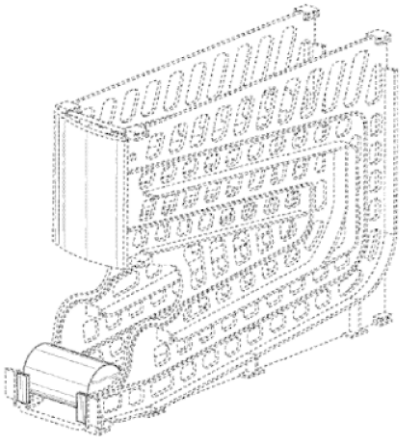
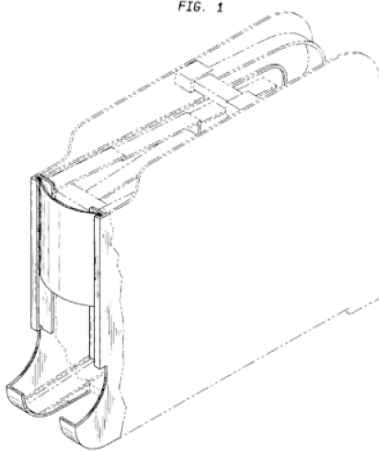
comparison because the '012 patent claims only the tabletop itself and does not claim any legs, mechanical features, or other items attached to the tabletop.

In the Institution Decision, the Board correctly rejected these same arguments, explaining that “because the scope of the *claimed* table top does not require legs of any number or type,” the type of legs in the prior art is “essentially immaterial to the analysis.” *Id.* at 28 (citing caselaw). Despite the Board’s extensive discussion, caselaw, and analysis, Patent Owner continues to make the bare² assertion that features in the primary prior art references related to unclaimed features render the prior art unsuitable as prior art references. *E.g.*, Reply, Paper 14 at 9 (*Morgan* and “legs and other mechanical features”); 12-13 (features attached to the Tabletop including “cut line,” “arched edge,” and “drawer”); 13 (same six differences alleged for *Iannaccone* as the Preliminary Response). That is simply not the law.

Where the patentee chooses to claim a *portion* of an article in a design patent, only that portion of the article is relevant for purposes of comparison. Unclaimed features present in the prior art do not serve as a “visual” difference to disqualify them as a suitable primary reference. *Campbell* is particularly on point.

² Patent Owner’s continued bare assertion that unclaimed features compel patentability, without legal support, wastes the Board’s and Petitioner’s resources.

Campbell Soup Co. v. Gamon Plus, Inc., 10 F.4th 1268 (Fed. Cir. 2021). There, the Federal Circuit reversed the Board’s finding of nonobviousness and determined that the claimed design was obvious over the prior art reference, Linz. The claimed design and prior art in *Campbell* are shown in the below table.

<i>Campbell</i> Claimed Design	<i>Campbell</i> Prior Art (Linz)
	

As shown, the overall article disclosed in Linz differed substantially from the design disclosed, but not claimed, in the *Campbell* patent. In particular, the Linz reference did not have any of the holes disclosed—but not claimed—in the patented design. Only the solid lines forming the label area, cylindrical object, and stops were claimed and therefore subject to comparison with the prior art. See *Campbell*, 10 F.4th at 1271-76 (comparing only the solid line area with the prior art). As a result, the Federal Circuit correctly ignored the holes that were disclosed, but not claimed, in the claimed design. *Id.*

Similarly, *Advantek* considered the patent for the ornamental design for a kennel with a “particular skeletal structure.” *Advantek Marketing, Inc. v. Shanghai Walk-Long Tools Co., Ltd.*, 898 F.3d 1210, 1216-17 (Fed. Cir. 2018). The Federal Circuit stated that the “[a] competitor who sells a kennel embodying [the] patented structural design infringes the D’006 patent, **regardless of extra features**, such as a cover, that the competitor might add to its kennel.” *Id.* (emphasis added). The same reasoning applies to the prior art because that which infringes if later, anticipates if earlier. *Peters v. Active Mfg. Co.*, 129 U.S. 530, 537 (1889). Thus, Patent Owner cannot escape application of *Morgan*, *Bordonabe Furniture*, and *Iannaccone* as primary references by pointing to unclaimed features.

Regarding actually claimed features, Patent Owner only argues that the prior art does not qualify as primary references because it does not show the table in assembled and unassembled states. See MTA Reply at 10, 14-15 (making this assertion for *Morgan* and *Iannaccone*, but omitting it for *Bordonabe Furniture*).

Patent Owner is demonstrably wrong. The ’012 patent specifically does not claim an unassembled state. The patent claim is for the entire “**tabletop**, as shown and described.” ’012 patent, Ex. 1001 at Claim (emphasis added). Figure 16’s description states that it is a “perspective view of the table top”—i.e., the “tabletop” that is claimed. In contrast, the patent specifically states that Figures 1-15 only show a “portion” of the tabletop—explicitly stating that they show the

portion “***isolated for clarity of illustration.***” *Id.* at 1 (Description of Figure 1 and 9) (emphasis added). In other words, the ’012 patent specifically states that the top and bottom portions of the tabletop are ***not being claimed*** in their unassembled state. Rather, the portions are only being “isolated for clarity of illustration.” *Id.*

Moreover, even if the ’012 patent somehow did claim an unassembled state that would not rebut Petitioners showing of unpatentability. The tabletops in *Morgan* and *Iannaccone* would obviously need to be assembled at some point.

B. Patent Owner’s Arguments Regarding Added Tenons/Holes Fail

Patent Owner barely argues that the added holes and tenons confer patentability. Rather, Patent Owner focuses on unamended features, occasionally including an add-on sentence making the conclusory assertion that the “addition of the now claimed tenons and holes in the amended claim of the ’012 Patent only further differentiates [the prior art].” MTA Reply, Paper 14 at 10; *see also id.* at 15 (“tenons . . . provide additional clear differences in visual impression . . .”).

Patent Owner, however, does not develop these bare assertions or otherwise support them with any reasoning. Likewise, Patent Owner’s expert does not explain how the addition of hidden tenons/holes, which are small, unseen features, alters the overall impression of a tabletop made from two abutted planks. In fact, Patent Owner’s expert does not even allege that the ***overall*** visual impression created by the primary references—that of a tabletop with two planks—is different

from the amended design. Instead, he merely states that the tenons are “part of the visual impression of the designs” and when one focuses on a hinge, it “provides a very different visual impression than holes and tenons.” Ex. 2006 at ¶ 84.

Patent Owner also complains that *Carter* only depicts a single dowel pin and “does not discuss, suggest or disclose a complementary hole.” MTA Reply at 11. This argument lacks credibility and is again, demonstrably wrong. It would be impossible to use a dowel pin without a complementary hole. The tabletop edge obviously requires space for the dowel pin to insert into. Otherwise, the existence of the dowel pin would prevent the tabletop planks in *Carter* from joining “to form a close joint.” *Carter* at 1:45-50. Regarding the number of pins, *Carter* specifically states on three occasions that the tabletop includes “dowel pins” (plural) (*Carter* at 1:46, 2:67, 2:91); yet Patent Owner conveniently omits the “s” when misquoting *Carter*. MTA Reply at 11. Moreover, Patent Owner appears to be reading *Carter* in isolation, divorced from how a person of ordinary skill would have understood dowels and holes at the time. See MTA Opposition, Paper 13 at 11 (examples of how to use dowels from “over 100 years ago”).

V. Conclusion

For the above reasons, Patent Owner’s Motion to Amend should be denied.

Date: April 26, 2024

Respectfully submitted,

By: /P. Andrew Riley/
P Andrew Riley

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on April 26, 2024, a copy of the foregoing **PETITIONERS’ SUR-REPLY TO PATENT OWNER’S REPLY TO OPPOSITION TO MOTION TO AMEND** was served by electronic mail on Patent Owner at the following addresses:

Robert McConnell
robert@mcconnellfirm.com

Tommy SF Wang
twang@thewangiplaw.com

Date: April 26, 2024

Respectfully submitted,

By: /P. Andrew Riley/
P Andrew Riley
Lead Counsel