

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. 2023-00658

**Declaration of Expert Witness Paul Hatch in Support of Petition
for *Inter Partes* Review of
U.S. Design Patent No. D934,012**

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1. I, Paul Hatch, declare as follows:

I. Introduction

2. I have been retained by petitioners Hangzhou Taihe Trading Co., Ltd. & Ningbo Likeju Trading Co., Ltd. as an independent expert in this proceeding before the United States Patent and Trademark Office.

3. I understand that this proceeding involves U.S. Design Patent No. D934,012, which I will refer to as the '012 patent.

4. I have been asked to provide my opinions regarding the patentability of the design claimed by the U.S. Design Patent No. D934,012 (“the '012 Patent”). I understand that a copy of the '012 Patent is attached as Exhibit 1001 to the petition.

5. I understand my task is to review materials and offer my opinion, perspective, and insights regarding this subject. I hold the opinions expressed in this report, but as my study of the case continues, I may acquire additional information that leads to new insights relevant to these opinions. With that in mind, I reserve the right to supplement this report if and when such additional information becomes known to me.

6. I am being compensated at a rate of \$450 per hour for analysis and \$500 for deposition testimony in this proceeding. My compensation is not

contingent on the outcome of any matter or the specifics of my testimony. I have no financial interest in the outcome of this matter.

7. In forming my opinions, I have reviewed and considered any material that is referred to in this declaration, including the following non-exhaustive list of materials:

- The '012 patent (which I have been told is Exhibit 1001 to the petition).
- U.S Patent No. 476,400 to Morgan et al. ("*Morgan*") (which I have been told is Exhibit 1004 to the petition)
- Spanish Industrial Design No. I146513 to Muebles Bordonabe, S.A. ("*Bordonabe Furniture*") (which I have been told is Exhibit 1005 to the petition)
- U.S. Design Patent No. D424,325 to Iannaccone ("*Iannaccone*") (which I have been told is Exhibit 1006 to the petition)
- Ikea, *Table Galant* - \$149.00 / pieces ("*Galant*") (which I have been told is Exhibit 1007 to the petition)

8. I have been asked to assume that Exhibits 1004-1007 each qualify as prior art to the '012 patent.

II. Qualifications and Background

9. I am qualified to serve as a technical expert in this matter based on my educational, personal, and work experience.

10. I am the recently retired CEO of TEAMS Design USA, a global product design consultancy. I have over 25 years of product design and industrial design experience and have designed many mass-produced consumer products, including outdoor furniture (folding tables and chairs), healthcare furniture (chairs, folding carts and storage units), and storage containers that doubled as tables. Many of those products and others I have designed required the use of flat, folding partitions or boards. In my company, I was actively involved in all phases of the development process, including the user research, idea conceptualization, styling, visual brand language, development, engineering and overseeing the final production stages.

11. I reside at 718 S. Oakley Blvd, Chicago, Illinois. I hold a Bachelor of Arts degree with honors (BA (Hons)) in Design for Industry (Industrial Design) from the University of Northumbria at Newcastle, United Kingdom. While studying to obtain my honors degree in Industrial Design, I took courses covering subjects including technical drawing, computer aided drawing, product styling and brand language, ergonomics, product evaluation, usability testing, production techniques, prototyping, mechanical engineering, and production techniques.

12. In the course of my work as a designer and managing teams of designers, I have gained an understanding of the training, knowledge, skills, and abilities of a person skilled in the art of industrial design and mechanical engineering. Through this work, I have also gained an understanding of how a designer perceives and appreciates the functional and ornamental merits of a product's design, and I use this understanding to opine on how a designer of ordinary skill in the art would answer questions raised in the examination of patent claims.

13. I am the named inventor in over 45 design and utility patents.

14. I was recently nominated into the prestigious IDSA Academy of Fellows. I have also been awarded many design awards, including the "Design of the Decade Award" from Business Week. In 2016 I was elected to the board of IDSA as Director-at-Large. Further information on my professional experience is detailed in my curriculum vitae, which I am informed is being included as Exhibit 1003 to the petition.

15. I have previously provided expert testimony in many other patent-related matters, a detailed list of cases for which I have provided expert testimony is included in Exhibit 1003 to the petition.

III. Overview of the '012 Patent

16. The '012 patent is titled “Table Top.” It is a design patent that includes one claim stating: “The ornamental design for a tabletop, as shown and described.” The '012 patent has 23 images with Figs 1-7 showing a “top portion” and figures 8-15 showing a “bottom portion.” The combined “table top,” including both the top and bottom portions, is shown in figures 15-23. I have reproduced figure 23 of the '012 patent below, showing the entire tabletop:

Table 1: Figure 23 of the '012 Patent shows the combined tabletop.

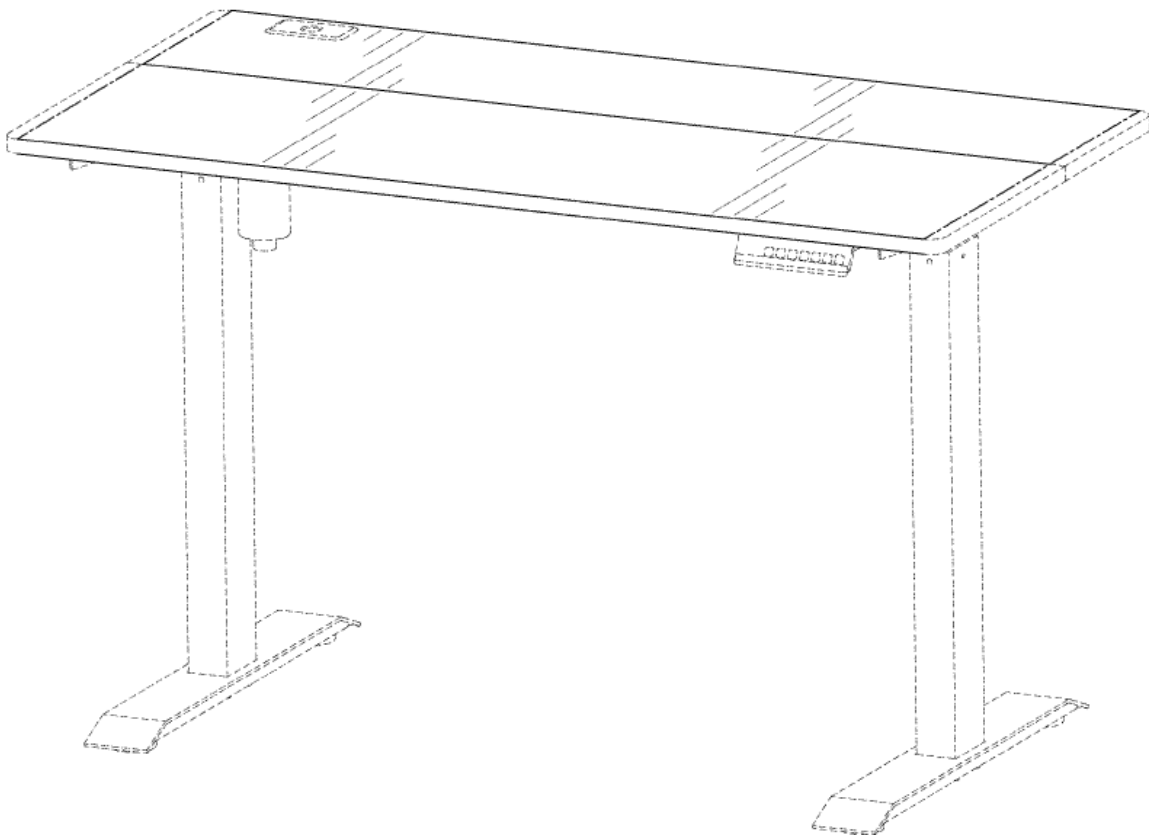
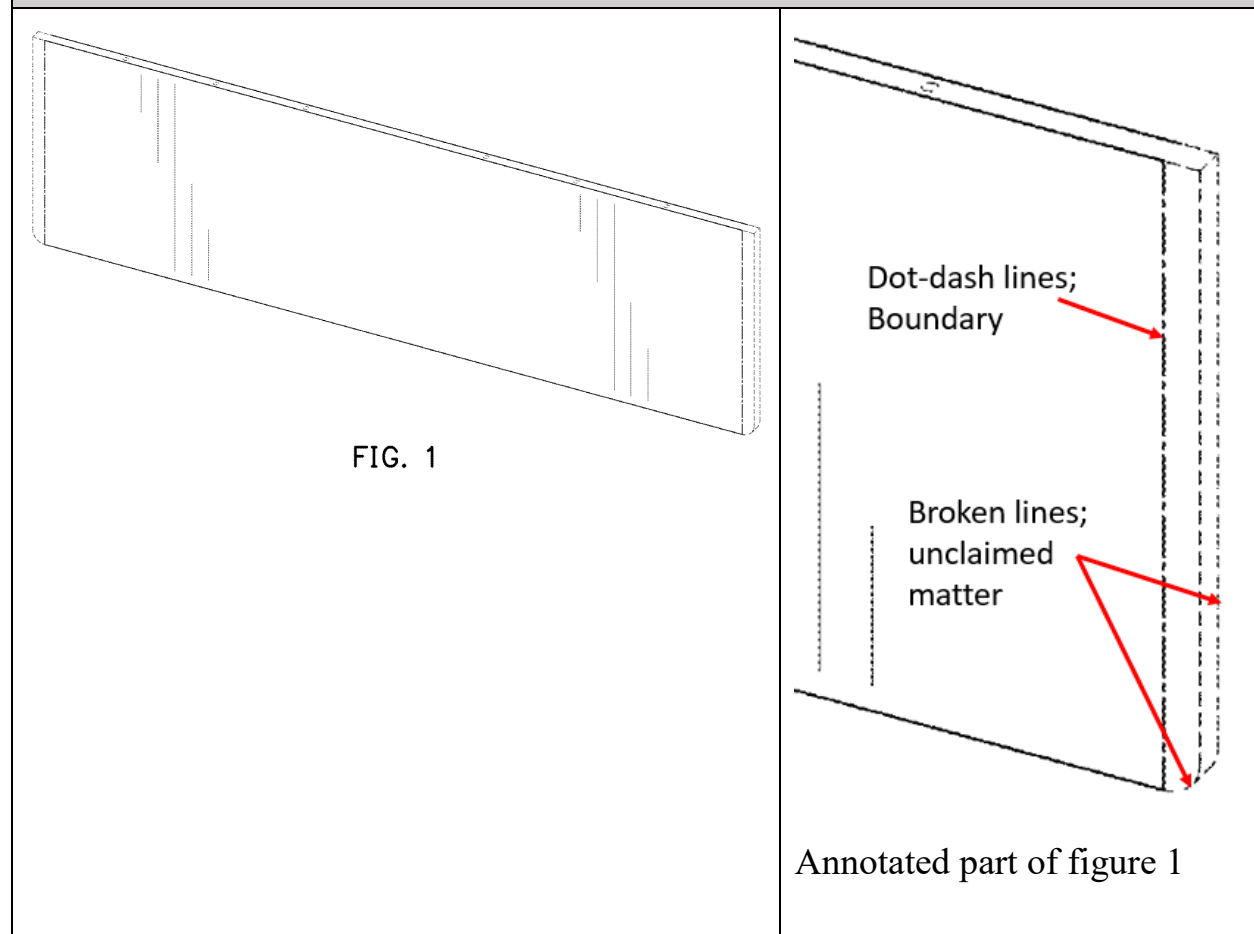
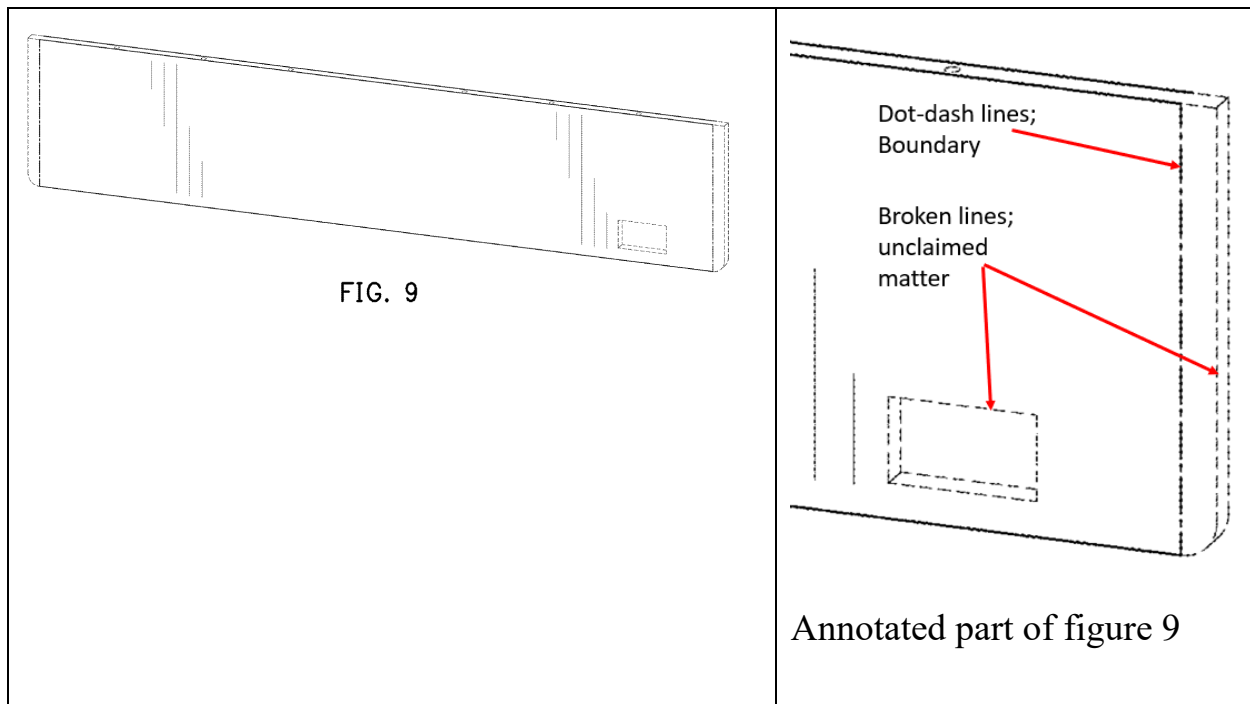


Figure 23 of the '012 patent

17. The '012 patent states that the “broken line portions of the table top in Figs. 1-23 represent portions of the article that form no part of the claim.” Only the rectangular tabletop portion is shown in solid lines. Other features like the legs and parts attached to or in the interior of the tabletop are shown in broken lines. The ends of the tabletop are also shown in broken lines, as shown in Figs. 1 (bottom portion) and 9 (top portion). There are also boundary lines near the end of the top and bottom portions, demarking the outer edge of the claimed matter.

Table 2: The figures include many areas of broken lines and dot-dash lines





IV. Legal Standards

18. I am not a lawyer. Rather, I am an industrial designer and base my analysis on the legal guidelines provided to me as outlined below. However, the opinions expressed, and reasoning applied are those of an experienced industrial designer viewing the relevant questions from the relevant perspectives (e.g., designer of ordinary skill in the art.)

19. It is my understanding that to be patentable, a design cannot be anticipated or rendered obvious by previous designs (known as the “prior art”). A design cannot simply copy or imitate what already exists. I further understand that a design patent does not cover aspects of a design that are purely “functional” rather than ornamental.

A. Anticipation

20. I have been informed that the following legal principles apply to the analysis of patentability pursuant to 35 U.S.C. § 102, a patent law provision that reads, in part: “A person shall be entitled to a patent unless—(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.”

21. I have been told that in an *inter partes* review proceeding, a patent claim may be deemed unpatentable if it is shown by a preponderance of the evidence that the claim was anticipated by a single prior art patent or publication. I have been asked to assume that the prior art references identified in this declaration qualify as prior art.

22. I have been informed that “the ordinary observer test” is the only test for anticipation. I have been told that this test asks whether an ordinary observer, familiar with the prior art, would be deceived into believing that the prior art reference and the claimed design are the same. I have been informed that the

ordinary observer is a hypothetical ordinary purchaser or end-user of the relevant product.

23. I have been told that the test for anticipation does not require the prior art to be exactly the same as the claimed design. Minor differences between the prior art and the claimed design are not enough to prevent anticipation where the ordinary observer would still be deceived into believing the two designs are the same.

B. Obviousness

24. I have been informed that the following legal principles apply to the analysis of patentability pursuant to 35 U.S.C. § 103, a patent law provision that reads: “A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.”

25. I have been told that in an *inter partes* review proceeding, patent claims may be deemed unpatentable if it is shown by a preponderance of the

evidence that they were rendered obvious by one or more prior art patents or publications.

26. For design patents, I have been told that the ultimate question is “whether the claimed design would have been obvious to a designer of ordinary skill who designs articles of the type involved.” I have been told that the inquiry for obviousness is from the perspective of a hypothetical ordinary designer (as opposed to an ordinary observer for anticipation), who designs articles of the type involved (here, tabletops).

27. When considering the issue of obviousness, I have been informed that I am to do the following:

- Determine the scope and content of the prior art;
- Ascertain the differences between the prior art and the claims at issue;
- Resolve the level of skill of an ordinary designer; and
- Consider evidence of secondary indicia of non-obviousness (if available).

28. I have been informed that obviousness is a determination of law based on underlying determinations of fact. I have been told that these factual determinations include the above four categories: scope and content of the prior

art, the level of skill of an ordinary designer, the differences between the claimed design and the prior art, and secondary considerations of nonobviousness.

29. I have been told that there is a two-step test for determining whether a claimed design is obvious. First, there must be a “primary reference”: a single reference that creates basically the same visual impression as the claimed design. In order to be basically the same, the designs cannot have substantial differences in their overall visual appearances or require major modifications.

30. Then, after identifying a primary reference, a secondary reference may be used to modify the primary reference to create a design that has the same overall visual appearance as the claimed design. The secondary reference must be so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other.

31. I have also been told that a secondary reference is sometimes not necessary, and that the modification to the primary reference can come from the skill, knowledge, and creativity of an ordinary designer.

32. I have been told that the relevant time for considering whether a claim would have been obvious to an ordinary designer is at the time of the alleged design, which I have been told to assume was shortly before the design patent application leading to the '012 patent was filed (shortly before June 4, 2019).

V. Designer of Ordinary Skill

33. I have been asked to articulate or write down a definition for the level of skill of a hypothetical ordinary designer who designs articles of the type involved here (tabletops).

34. In this instance, based on my experience in the field of designing furniture, the designer of ordinary skill in the art would be a person who has a bachelor's degree in furniture design or an equivalent field or alternatively two years of practical experience designing furniture. My opinion on the level of skill for an ordinary designer is a level of skill and not rigidly defined. A combination of education and experience can lead to the same level of skill, where a deficiency in one area (such as education) can be compensated for additional experience in the other (such as more work experience). For instance, someone without a bachelors in furniture design but who has taken relevant classes might be able to satisfy the level of skill if they had a little more than two years of practical design experience.

35. I note that the level of skill I have articulated is relatively low, and I believe this is appropriate given the relatively simple nature of the design at issue, which involves little more than two boards forming a tabletop.

36. I further understand that the designer of ordinary skill is a hypothetical person that is presumed to know the relevant prior art.

37. My opinions below on obviousness are based on this level of skill.

38. I believe I would meet and exceed this definition now and at the time the application for the '012 patent was filed (June 2019).

VI. The Ordinary Observer

39. I have been informed that the ordinary observer is not an expert in the claimed designs, but one of ordinary acuteness who is a principal purchaser of the underlying articles with the claimed designs.

40. It is my opinion that the hypothetical ordinary observer in this case would be an occasional purchaser of home furniture products such as tables, with an ordinary level of visual acuity.

VII. Claim Construction

41. I have been told that the scope of a design patent is defined by the solid lines in the figures, as opposed to the broken lines. I can see that the '012 patent confirms this understanding as it includes statements specifically pointing out that the broken lines in the figures are not included in the scope of the claimed design.

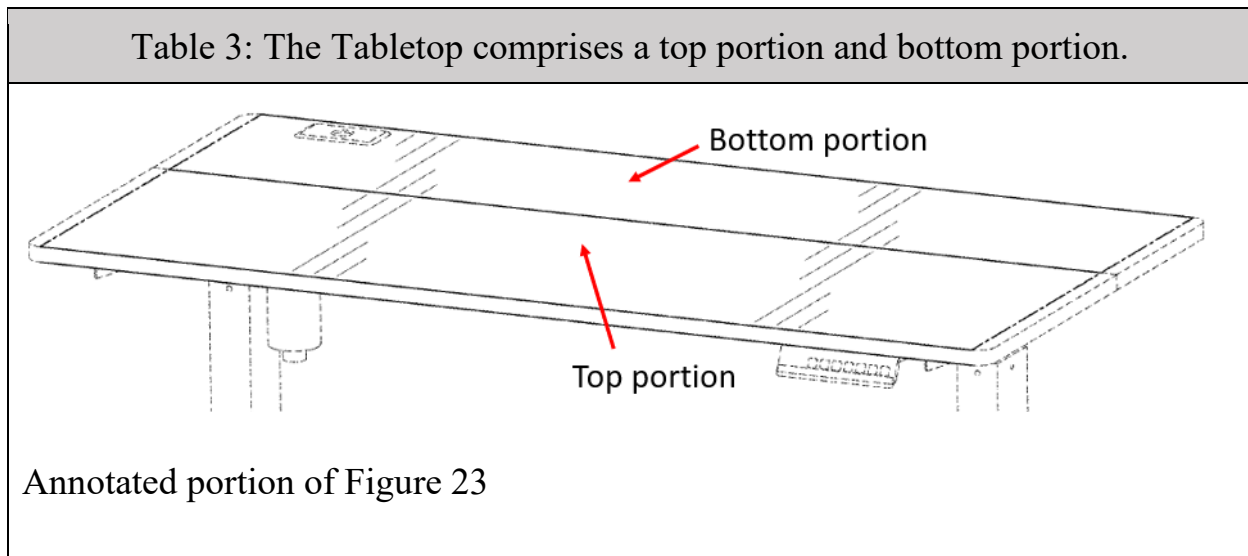
42. I have been informed that in the analysis of design patents, detailed verbal descriptions are not usually preferred. I'm told that in some instances though, it can still be helpful to point out certain features of the claimed design that would be apparent to the designer of ordinary skill or the ordinary observer as they relate to the design and the prior art.

43. Throughout this declaration, I rely primarily on the solid lines in the figures of the '012 patent for the scope of the claimed design. Nonetheless, because this declaration is in written form, I have resorted to words to describe certain features of the claimed design and the prior art.

A. The '012 Patent Claims Two Simple Boards

44. Based on my review of the '012 patent figures, including their solid lines, I understand the claimed design to be two rectangular prisms that are abutted against each other, side by side, to form a tabletop. Throughout this declaration, I will just refer to these prisms as “boards”.

45. My understanding that the '012 patent claims two side-by-side boards or boards is entirely based on the figures. The '012 patent calls the two tabletop boards the “top portion” and the “bottom portion,” with figures 1-8 showing perspectives of the “top portion” and figures 9-15 showing the “bottom portion.” The rest of the figures, 15-23, show the overall tabletop, with the two boards placed side by side against each other.



46. I note that the claimed design does not appear to claim anything besides the two boards. The combined boards form a tabletop that appears to have approximate 2x1 proportions. Objects like the legs supporting the tabletop and other items attached to the tabletop and shown inside the tabletop are all depicted with broken lines. The short edges of the boards are also unclaimed, as seen in figure 23.

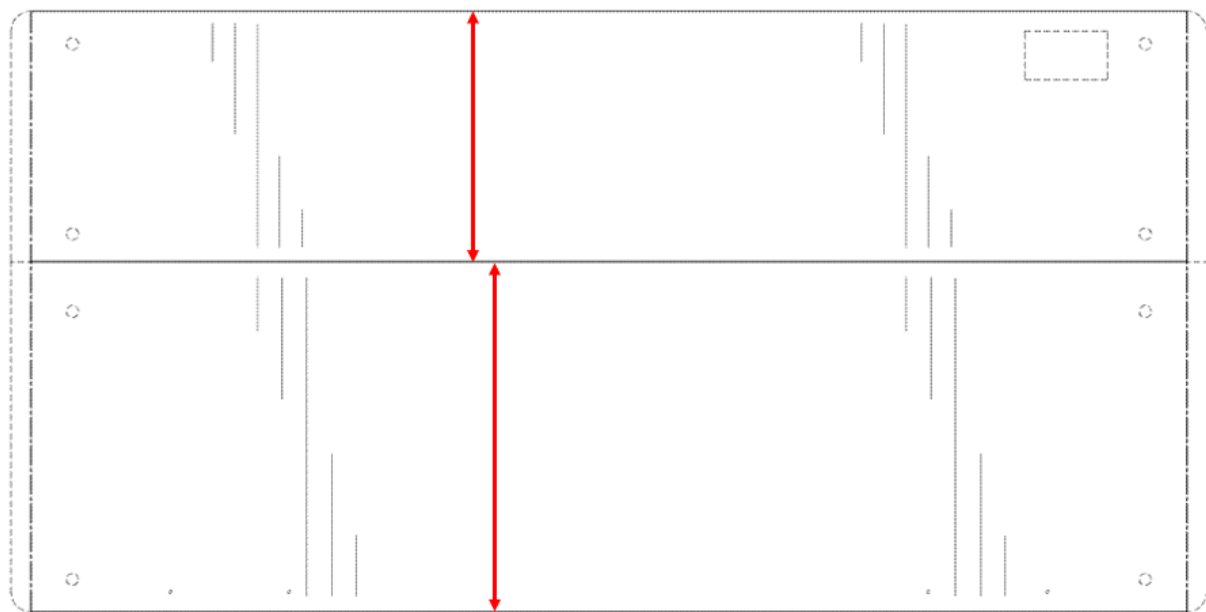
B. Two Constructions for the Board Widths

47. In my opinion below, I use two alternative understandings of the widths of the boards claimed in the '012 patent.

48. The '012 patent figures show two boards having different widths. The top portion (Figs. 1-8) appears to be wider than the bottom portion shown in Figs. 9-15. When the two boards are placed side by side to form the overall tabletop, the

seam where the two boards meet is not in the middle of the table, as would be the case if the two boards were the same width. This can be seen in Fig. 18, where the seam is visibly skewed towards the top of the image and not in the middle of the tabletop.

Table 4: The board widths visually differ; therefore the seam is not in the middle.



Annotated Figure 18

49. I have been told that the owner of the '012 patent has claimed in court that certain tables with equal-width boards (that is, tabletops with the seam in the middle) infringe the '012 patent's claimed design. Because of this, I have been asked to also consider an understanding where the scope of the '012 patent's

claimed design includes tabletops with boards that have the *same width*, resulting in a tabletop with the seam down the middle of the table.

50. Accordingly, I use two alternative constructions for the widths of the boards claimed in the '012 patent. First, I consider a situation where the claimed design encompasses tables with equal-width boards (with the seam down the middle). This situation is based on how I have been informed the Patent Owner views the scope of the patent claim. Specifically, I have been informed that the Patent Owner has accused products having equal-width boards of infringing the '012 patent. Second, I consider the situation where the claimed design covers only tables with unequal-width boards, resulting in a tabletop that has a seam that does not go through the middle of the table—as is the case in the '012 patent figures.

51. I note that the first construction above, where the claimed design encompasses tables with equal-width boards, also includes tables with unequal-width boards. That is, the first construction permits—but does not require—the boards to have equal widths. Thus, the first construction results in the claimed design covering both equal and unequal-width boards.

52. I address various cases of anticipation and obviousness below. In grounds 1-6, I explain why the prior art anticipates or renders obvious the claimed design in a situation where the claimed design includes equal-width boards (the first understanding). In grounds 4-9, I address why the prior art anticipates or

renders obvious the claimed design where the claimed design requires unequal-width boards (the second understanding). I note, however, that because the first understanding encompasses both equal and unequal width boards, grounds 4-9 would also anticipate or render obvious the claimed design under the first construction.

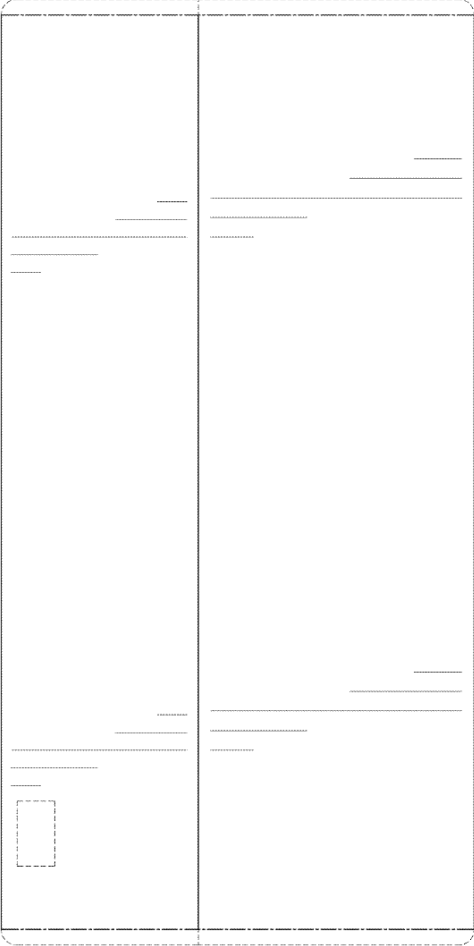
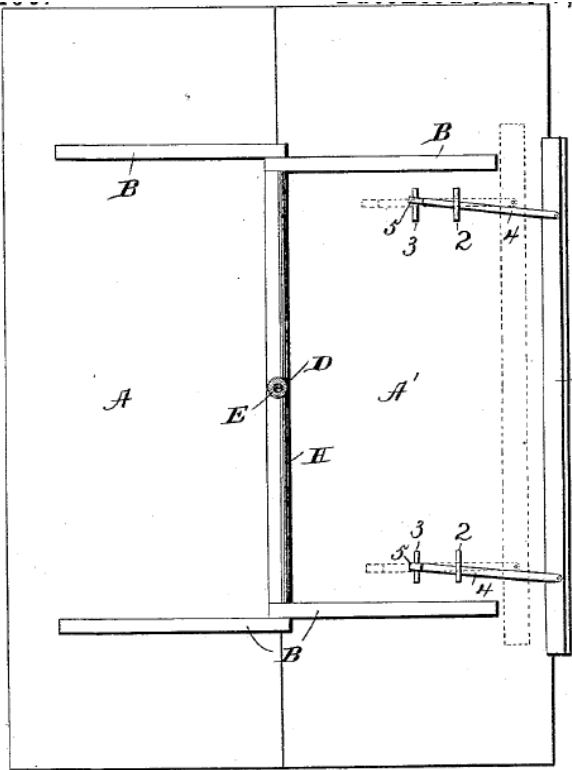
VIII. Detailed Analysis

A. Ground 1—The Claim Is Anticipated by *Morgan*

53. In my opinion, based on the first construction where the claimed design encompasses tables with equal-width boards, the claimed design is anticipated by *Morgan*.

54. *Morgan* shows the same overall visual impression as the claimed design—a tabletop made with two equal-width boards. The ordinary observer (i.e., purchaser of a tabletop) would consider the two tabletop designs to be substantially the same because they both create the same overall visual impression of a tabletop consisting of two equal-width boards. Therefore, the ordinary observer would be deceived into believing the two tabletops have the same design.

55. I have included pictures from the '012 patent and *Morgan* below.

Table 5: Comparison of the '012 Patent and <i>Morgan</i> prior art reference	
	
Figure 17 of the '012 Patent	Figure 4 of <i>Morgan</i> prior art reference.

56. Based on a construction for the '012 patent that includes equal-width boards, the two tabletops create the same overall impression to the ordinary observer. Both tabletop designs present simply two side-by-side rectangular prisms (boards). In my opinion, an ordinary observer or purchaser would view the two tabletops as having the same design.

57. I note that the overall size of the *Morgan* table differs slightly from what is shown for the '012 patent. In my view, the overall size of the table is almost purely a functional consideration based on the size or type of tabletop the purchaser wants. A writing desk, for example, would have a certain range of proportions while a dining table or coffee table would have another range of proportions. While it's true there might be some aesthetic reasons for avoiding (or desiring) extremely narrow tables (like 1x5 tables), in the range of proportions shown in *Morgan* and the '012 patent, where the table is somewhere between 1:1 (square) and 1:2 (rectangular), the overall size of the tabletop is largely a functional consideration based on the overall size and application of the desired table. It's my understanding that design patents do not cover such purely functional considerations because they are functional rather than ornamental in nature.

58. Even considering the overall tabletop proportions as an ornamental feature, however, it is my opinion that an ordinary observer would regard *Morgan* as substantially the same as the '012 patent. The difference in overall proportion does not affect the overall impression of the tabletop as a whole, with both tabletops being generally rectangular. The *Morgan* tabletop is also split down the long dimension, as is the case in the claimed design. In my opinion, there are only insignificant differences between *Morgan* and the claimed tabletop design, that is

to say an ordinary observer would not view a table that is slightly longer or wider as a different “design.” In other words, an ordinary observer, with the understanding that the claimed design of the ’012 patent includes equal-width boards, would likely look at *Morgan* and think that it has the same ornamental design claimed in the ’012 patent.

B. Ground 2—The Claim Is Obvious Over *Morgan*

59. In my opinion, based on the first construction where the claimed design encompasses tables with equal-width boards, the claimed design is obvious in view of *Morgan* and the common knowledge of a designer having ordinary skill in the art.

60. As noted above in the “Legal Standards” section, I have been informed that obviousness requires a “primary” reference that creates basically the same visual impression as the claimed design. *Morgan* creates such an impression under the first construction. In fact, the previous section addresses why I believe *Morgan* anticipates the claimed design because an ordinary observer would regard the designs as being the same under the first construction. Accordingly, *Morgan* would also create the same basic visual impression as the claimed design: i.e., a tabletop formed from two equal-width boards.

61. As also noted in the “Legal Standards” section, I am to ascertain the differences between the prior art (*Morgan*) and the claimed design. But under the

first construction where the claimed design encompasses equal-width boards, the designs are practically the same. There are almost no differences.

62. The only possible difference between *Morgan's* tabletop and the claimed tabletop that I can see (under the first construction) is the overall proportions of the tabletop. As I noted in the previous section, my understanding is that purely functional considerations, like the overall size of the workspace created by a tabletop, are not “ornamental” in nature and therefore not available for design patent protection. Even if somehow, nobody had ever thought of making a tabletop of a similar proportion, such a feature is purely functional because it is controlled by the desire to have a workspace of that size/proportion.

63. Even if that were not the case, however, varying the overall size of a tabletop would have been obvious to an ordinary designer. A designer with ordinary skill in the art would have had the common knowledge and skill to understand that any given tabletop could be easily modified to be longer or shorter depending on the application and retain the same overall impression as the original tabletop. And, an ordinary designer would have been motivated to vary the overall size of the tabletop to suit different applications. In my opinion, making such small changes to the overall proportions such as is the case here, would easily be within the purview of the ordinary designer thereby rendering the proportions to be

the same. In short, an ordinary designer would have found it obvious to change a tabletop's size by 2019.

C. Ground 3—The Claim is Obvious Over *Galant* and *Morgan*

64. In my opinion, based on the first construction where the claimed design encompasses tables with equal-width boards, the claimed design is also obvious in view of *Morgan* and *Galant*.

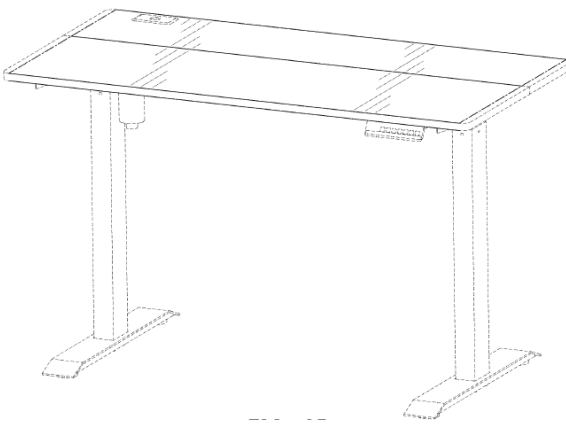
65. *Morgan* is a suitable primary reference, as I noted in the previous section. *Morgan* creates the same visual impression as the claimed design because it includes two equal-width boards, which under the first construction is the same design claimed by the '012 patent.

66. As I explained in the previous section, the only potential difference I can see (under the first construction) between *Morgan* and the claimed design relates to the overall proportions of the tabletop. In the anticipation section above, I explained that an ordinary observer would not regard this to create a significant difference to the overall impression of the tabletop. And in the obviousness section (previous section), I explained that even if this was a difference, a designer of ordinary skill would have found it trivially obvious to vary the length and width of a given tabletop design to suit different applications.

67. Nonetheless, in the event more evidence is needed that the particular tabletop proportion claimed in the '012 patent would have been obvious to an

ordinary designer, *Galant* is one example of such evidence. *Galant* shows an Ikea tabletop that has a length of 120cm and a width of 60 cm, forming a 2x1 proportional tabletop.

68. *Galant*'s tabletop has the same proportions as the claimed design. In analyzing the tabletop of the '012 patent, I can see that the claimed design is also in the form of a 2x1 tabletop (judging from the location of dot-dash lines that form the end of the tabletop). In fact, as shown in the comparison between the claimed design and *Galant*, the tabletops' proportions are literally identical, and the only identifiable difference appears to be the seam that divides the tabletop in the claimed design:

Table 6: Comparison between the claimed design of the '012 patent and <i>Galant</i>	
	
Figure 23 of the '012 patent	The <i>Galant</i> prior art reference

69. In my opinion, it would have been obvious to implement *Morgan* as a 2x1 tabletop in view of the *Galant* prior art reference. In view of *Galant*, a table from a popular, well-known furniture maker, it would have been obvious to implement the folding table in *Morgan* with those proportions. A designer of ordinary skill would have recognized that the proportions of the *Galant* tabletop are an example of desirable and appropriate proportions for a writing desk or computer desk. Implementing *Morgan*'s folding table with the proportions of *Galant* would have beneficially and obviously created a table the proportions of *Galant*, but could fold, thus increasing versatility and allowing the table to be stored when not in use. Implementing *Morgan* with those proportions would have been an obvious and desirable option, so that the resulting table could be used as a desk. At a minimum, it would have been obvious to try to implement *Morgan* with such proportions.

70. In my opinion, implementing *Morgan* with the proportions of *Galant* would have led to predictable results, because there is nothing surprising or unexpected that would result from simply lengthening a tabletop by this small amount. While the support mechanism underneath the table would also need to be appropriately lengthened or shortened, that was well within the skill of an ordinary designer with experience in furniture design. This is especially the case for

modifying *Morgan*, which involves folding-table technology from over a century ago.

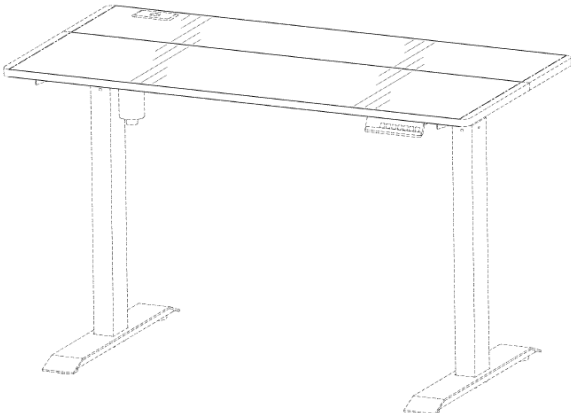
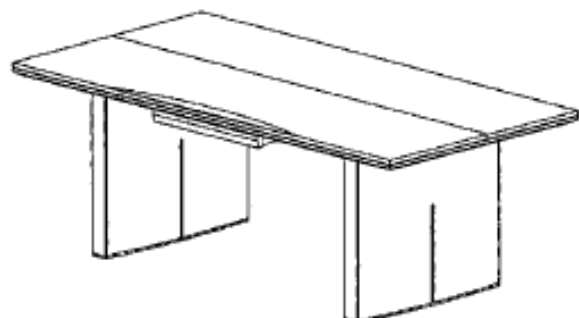
71. I have been informed (see Legal Standards section) that the secondary reference, here *Galant*, must be so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other. It is my opinion that *Galant* and *Morgan* could not be more related, as they both relate to tables, including tabletops. A designer of ordinary skill would have thus immediately recognized that features, ornamental or not, from one reference could be easily applied to the other.

72. In view of *Galant*, it would have been obvious to modify *Morgan*'s tabletop to have similar proportions (2x1). The resulting tabletop proportions would have been identical to the claimed design, under the first construction. It would have continued to have two equal-width boards appropriately modified (lengthened) to have proportions similar to *Galant*. Any differences between the resulting tabletop and the claimed design of the '012 patent under the first construction, if they exist at all, would not appear significant to the designer of ordinary skill.

D. Ground 4—The Claim Is Anticipated by *Bordonabe Furniture*

73. In my opinion the claimed design is anticipated by *Bordonabe Furniture*. This is true whether under the first construction (encompassing equal-width boards) or the second construction (requiring different board widths).

74. Under the first construction, where the claimed design encompasses tabletops with equal-width boards, *Bordonabe Furniture* has the same design. As shown in the comparison below, design A of *Bordonabe Furniture* has the same tabletop claimed in the '012 patent.

Table 7: Comparison of the '012 Patent and <i>Bordonabe Furniture</i>	
	
Figure 23 of the '012 patent	Design A of <i>Bordonabe Furniture</i>

75. The above comparison shows that the two tabletops have the same design under a construction that encompasses equal-width boards. I note that *Bordonabe Furniture* has different legs and a feature on the side of the tabletop. I

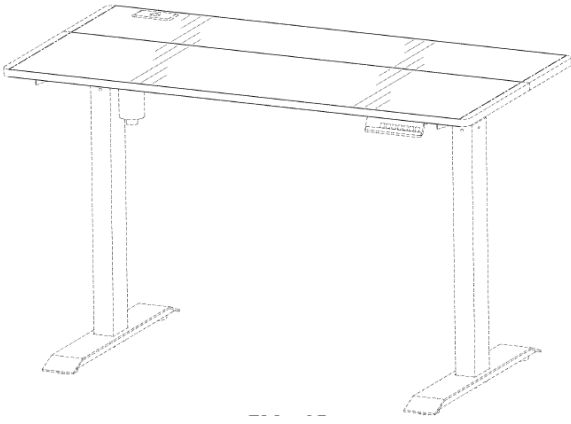
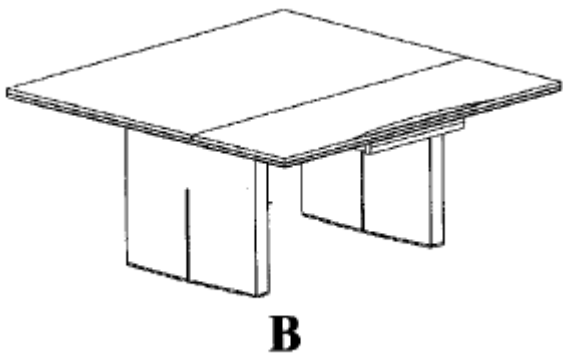
do not consider these features when comparing the “tabletops” because the ’012 patent shows these features as broken lines and do not form a part of the claimed design. My focus is thus on the tabletops themselves.

76. In my opinion, an ordinary observer (i.e., purchaser) would view the tabletop in design A of *Bordonabe Furniture* as creating substantially the same impression as the claimed design of the ’012 patent under the first construction because it consists of two equal-width boards. Therefore, the ordinary observer would be deceived into believing the two tabletops have the same design. I don’t see any other significant differences between the tabletop designs that would be apparent to an ordinary observer. For instance, *Bordonabe Furniture*’s tabletop may have a slightly different proportions to the tabletop, but even this is hard to discern from a simple visual inspection and would probably require measuring the tables. An ordinary observer would likely not notice any difference in the overall tabletop size. They are both long, rectangular tables of very similar, if not the same proportions. And in any event, as I explained above in the context of anticipation by *Morgan*, I believe the overall proportions of the tabletop to be a largely functional consideration driven by the desired size of the workspace. The only other potential difference between the two designs under the first construction is any edge profiling on the edges of the table in *Bordonabe Furniture*. This is an exceedingly minor detail and not very apparent from the images. *Bordonabe*

Furniture does not appear to place any emphasis on any edge profiling since it does not show the edges in any detail. Moreover, it's not clear from the image in *Bordonabe Furniture* what the profiling would involve. Regardless, the overall visual impression created by *Bordonabe Furniture*'s tabletop remains the same as the claimed design under the first construction of two side-by-side equal-width boards.

77. The preceding paragraphs discuss the first construction. In my opinion, *Bordonabe Furniture* anticipates the claimed design under the second construction as well. As I noted in the Claim Construction section, anticipating the claimed design under the second construction would also anticipate under the first construction because the first construction simply encompasses equal-width boards while still permitting unequal-width boards.

78. As shown in the comparison below, design B of *Bordonabe Furniture* has the same tabletop claimed in the '012 patent under both constructions:

Table 8: Comparison of the '012 Patent and <i>Bordonabe Furniture Design B</i>	
 Figure 23 of the '012 patent	 Design B of <i>Bordonabe Furniture</i>

79. In my opinion, an ordinary observer would consider that design B of *Bordonabe Furniture* creates substantially the same impression as the tabletop design claimed by the '012 under the second construction because they both consist of two unequal width boards. It would have been immediately apparent to an ordinary observer (purchaser) that design B of *Bordonabe Furniture* has a tabletop design that involved dividing the overall tabletop into two unequal portions, which is the same as the '012 patent. The ordinary observer would be deceived into believing the two tabletops have the same design.

80. I do not discern any significant differences in design between design B of *Bordonabe Furniture* and the one claimed in the '012 patent. I note that the proportions of the design B table differ slightly from what's claimed in the '012

patent. In my view, the proportions of the table are almost purely a functional consideration based on the space needed by the desired utility or type of table. Indeed, *Bordonabe Furniture* appears to recognize that the tabletop proportions can be easily varied, showing various examples of rectangular tabletops in designs A-D and even showing a circular tabletop in design F. While it's true there might be some aesthetic reasons for avoiding (or desiring) extremely narrow tables (like 1x5 tables), in the range of proportions shown in *Bordonabe Furniture* and the '012 patent, the overall size of the tabletop is largely a functional consideration based on the overall size and application of the desired table. It is my understanding that design patents do not cover such purely functional considerations because these considerations are functional rather than ornamental in nature.

81. Even considering the overall tabletop proportions as an ornamental feature, however, it is my opinion that an ordinary observer would regard design B of *Bordonabe Furniture* as creating substantially the same impression as the '012 patent. In my opinion, there are at most only insignificant differences between design B of *Bordonabe Furniture* and the claimed tabletop design. The overall visual impression, that of a tabletop that is simply made by adjoining two rectangular boards, is the same between design B of *Bordonabe Furniture* and the '012 patent. An ordinary observer would likely not view a table that is simply

longer or wider as a different design. Instead, an ordinary observer would view the longer or shorter tabletop as having the same overall design, with the design used for a different application (e.g., a coffee table instead of a writing desk with the same design). In other words, an ordinary observer would likely look at the tabletop design in design B of *Bordonabe Furniture* and consider it to create the same visual impression as the claimed design of the '012 patent; namely one with two unequal-width boards.

E. Ground 5—The Claim Is Obvious Over *Bordonabe Furniture*

82. In my opinion, based on either construction, the claimed design is obvious in view of *Bordonabe Furniture* and the common knowledge of a designer having ordinary skill in the art.

83. I first address the first construction, which encompasses equal-width boards. As I noted above in the “Legal Standards” section, I have been told that obviousness requires a “primary” reference that creates basically the same visual impression as the claimed design. *Bordonabe Furniture* creates such an impression under the first construction. In fact, the previous section addresses why I believe design A of *Bordonabe Furniture* anticipates the claimed design because an ordinary observer would regard the designs as being the same under the first construction. Accordingly, *Bordonabe Furniture* would also create the same basic

visual impression as the claimed design: i.e., a tabletop formed from two equal-width boards.

84. As also noted in the “Legal Standards” section, I am to ascertain the differences between the prior art (*Bordonabe Furniture*) and the claimed design. But under the first construction, where the claimed design encompasses equal-width boards, the designs are practically the same. There are almost no differences.

85. The only potential differences, which I addressed partially in the context of anticipation (previous section) are the overall proportions of the tabletop and any edge profiling used in *Bordonabe Furniture*. Regarding the overall proportions of the table, it’s hard to even tell whether *Bordonabe Furniture*’s furniture is 2x1 or slightly longer or shorter without a measuring instrument. Moreover, I understand that purely functional considerations, like the overall size of a table, are not ornamental in nature and not available for design patent protection.

86. Even if that were not the case, however, varying the overall proportions of a tabletop would have been obvious to an ordinary designer. In fact, *Bordonabe Furniture* itself shows variations in the overall proportions of the tabletops in designs A-D. A designer with ordinary skill in the art would have had the common knowledge and skill to understand that any given tabletop design

could be easily modified to be longer or shorter depending on the application. And an ordinary designer would have been motivated to make such modifications to the overall proportions of a tabletop to suit various applications. For example, a longer tabletop (e.g., used as a dining or writing table) is easily shortened while retaining the same overall design, to serve applications typically involving shorter tables. In my opinion, changing the overall length and width of a tabletop borders on the trivial and an ordinary designer would have been motivated to do so.

87. Regarding the edge profiling of *Bordonabe Furniture*, it's difficult to tell from the image whether any such edge profiling exists. Given that *Bordonabe Furniture* does not depict the edges of the table with any detail, I view any edge profiling (if it exists in *Bordonabe Furniture*), as an exceedingly minor detail. *Bordonabe Furniture* appears to agree since it doesn't even show how the edge is formed. Nonetheless, even if *Bordonabe Furniture* used some kind of edge profile (e.g., a chamfer or some kind of profile similar to molding), that is an additional ornamental feature of *Bordonabe Furniture* that the claimed design lacks. An ordinary designer would have found it obvious to omit such edge profiling and return to generally square edges, which is the default for a simple table. In other words, an ordinary designer would have understood that the default, initial state of a table design was one or more boards with square (i.e., 90 degree) corners. This is the unadorned, initial state of any tabletop design (indeed, it is typically the initial

state of a piece of wood after it has been flatted, planed, and jointed to create a rectilinear piece of wood. Thus, a designer of ordinary skill would have found it obvious to modify design A of *Bordonabe Furniture* to omit any edge profiling, to the extent there even is any, to create a basic table with default edges.

88. Under the second construction, which requires boards of unequal width, the claimed design is also obvious in view of *Bordonabe Furniture* and the common knowledge of a designer having ordinary skill in the art. As I explained in the previous section, design B of *Bordonabe Furniture* creates the same visual impression as the claimed design: that of a tabletop consisting of two unequal-width boards.

89. The only potential differences, under the second construction, between design B of *Bordonabe Furniture* and the claimed design are the overall size of the table, any potential edge profiling, and the position of the seam between the unequal-width boards. I have already addressed why I believe the overall proportions of the table and the lack of edge profiling in the claimed design would have been obvious in the preceding paragraphs in the context of the first construction.

90. Regarding the placement of the seam, an ordinary designer would have understood that the seam (i.e., the relative widths of the boards) could easily be varied from table to table. This is readily apparent from *Bordonabe Furniture*

itself, which discloses difference placements for the seam in designs A-C, including a seam in the middle (equal-width boards, first construction) and an off-center seam (unequal width boards, second construction). At a minimum, the relative widths in the claimed design would have been obvious to try.

91. Moreover, it would have been obvious to vary the position of the seam in the context of a wooden table to maximize resources. The width of a wooden board or slab often depends on the overall circumference of the tree from which the wood was cut. A bigger tree can naturally yield wider boards than a smaller, younger tree. Given a desired worktop size, a table designer must work within the constraints of the sourced wooden boards/slabs to create the tabletop. For narrower tables, it is often very easy to create a tabletop with equal-width boards. For wider tables, however, equal-width boards cannot be used unless the designer is able to source two boards that are both individually wide enough to meet in the middle of the table. Thus, it would have been obvious to vary the position of the seam (i.e., vary the width of the boards) to maximize the use of available resources when designing and constructing a tabletop. In the often, and likely case where one wider board and one narrower board are available, it would have been obvious to create a table with board proportions similar to the claimed design.

92. Varying the width of the boards was also obvious to designers for other reasons. For example, slabs of wood are often selected based on their grain patterns. Moreover, neighboring boards, including where to cut the edge of the plank, are often selected based on how the grain patterns either match or interact with each other. These vary from board to plank, wood species to wood species, and from table to table. All of this has been well known to woodworking furniture designers for centuries. In that context, it would have been obvious to an ordinary designer to vary the position of the seam within the table based on the material, grain pattern, and features (e.g., to avoid or include knots, etc.) of the particular wood being used. It would have been known to an ordinary designer that the tabletop resulting from using two unequal boards of wood would obviously and likely result in proportions similar to and be indistinguishable from that used in the claimed design.

93. Further, the proportions of the table when one board is folded or removed has a great effect on the choice of width of the boards and the position of the seam between them. This is especially so if at least one board is foldable or removable. For example, the designer may desire the table to be compactly storable against a wall, thus requiring a slim profile for the remaining board, and the other board not to exceed the height of the table. The designer may also design the tabletop to be able to fit through standard doorways, thus limiting the overall

width of the remaining board to the standard clearance of a doorway, leaving the remaining normal-use width to be provided by the second board.

94. Aside from the above differences, I do not see any other potential differences between *Bordonabe Furniture* and the claimed design. If there are any, they are insignificant to the overall impression.

F. Ground 6—The Claim is Obvious Over *Galant* and *Bordonabe Furniture*

95. In my opinion, based on either construction, the claimed design is obvious in view of *Bordonabe Furniture* and *Galant*.

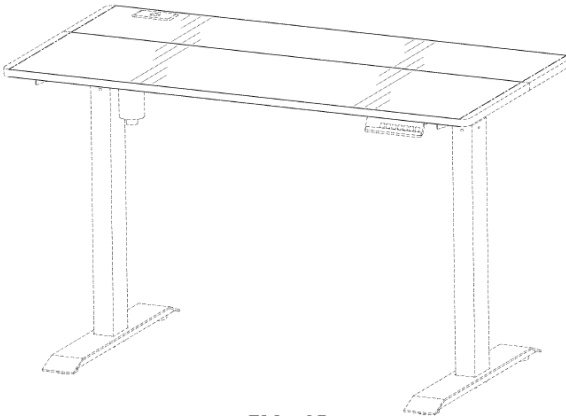
96. *Bordonabe Furniture* is a suitable primary reference for the reasons I explained in the previous section, where I addressed why *Bordonabe Furniture* by itself, without *Galant*, renders obvious the claimed design. *Bordonabe Furniture* creates the same visual impression as the claimed design under the first construction because design A has the same basic design (two equal-width boards) and also under the second construction because design B has the same basic design (two unequal-width boards).

97. As I also noted in the previous section, one of the few potential differences I can see between *Bordonabe Furniture* and the claimed design relates to the overall proportions of the tabletop. In the particular case of design A, it's hard to see if there even is any difference in the overall tabletop proportions. In the

case of design B, it would have been obvious to vary the proportions, for example to match those of design A. At a minimum, it would have been obvious to try a tabletop with an overall 2x1 proportion. In short, an ordinary designer would have found it obvious to change a tabletop's proportions by 2019.

98. Nonetheless, in the event more evidence is needed that the particular tabletop proportions claimed in the '012 patent would have been obvious to an ordinary designer, *Galant* is one example of such evidence. *Galant* shows an Ikea tabletop that has a length of 120cm and a width of 60 cm, forming a 2x1 tabletop.

99. *Galant*'s tabletop has the same proportions as the claimed design. I can see that the claimed design of the '012 patent is also in the form of a 2x1 tabletop (judging from the broken lines that form the end of the tabletop). In fact, as shown in the comparison between the claimed design and *Galant*, the tabletops are literally identical except for the seam that divides the two boards in the claimed design:

Table 9: Comparison between the claimed design of the '012 patent and <i>Galant</i>	
	
Figure 23 of the '012 patent	The <i>Galant</i> prior art reference

100. In my opinion, it would have been obvious to implement *Bordonabe Furniture* as a 2x1 tabletop in view of *Galant*—to the extent design A is not already a 2x1 table. A designer of ordinary skill would have already found it obvious to vary the length/width of a given design, like the design in *Bordonabe Furniture*, for other applications, especially in view of the different proportions disclosed in designs A-D. In view of *Galant*, a table from a popular, well-known furniture maker, it would have been obvious to implement *Bordonabe Furniture*'s tables with those proportions. A designer of ordinary skill would have recognized that the *Galant* proportions was an example of desirable and appropriate proportions for a desk, whether to be used as a writing desk or computer desk.

Implementing *Bordonabe Furniture*'s tables with the proportions of *Galant* would have beneficially and obviously created a table with a functional size, while maintaining the design characteristics of *Bordonabe Furniture*. Implementing *Bordonabe Furniture* with those proportions would have been an obvious and desirable option, so that the resulting table could be used as a desk. At a minimum, it would have been obvious to try to implement *Bordonabe Furniture* with such proportions.

101. In my opinion, implementing *Bordonabe Furniture* with the proportions of *Galant* would have led to predictable results, because there is nothing surprising or unexpected that would result from simply lengthening or shortening a tabletop. While the legs and any crossbeams underneath the table would also need to be appropriately lengthened or shortened, that was well within the skill of an ordinary designer with experience in furniture design.

102. I have been informed (see Legal Standards section) that the secondary reference, here *Galant*, must be so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other. It is my opinion that *Galant* and *Bordonabe Furniture* could not be more related, as they both relate to tables, including tabletops. A designer of ordinary skill would have thus immediately recognized that features, ornamental or not, from one reference could be easily applied to the other.

103. In view of *Galant*, it would have been obvious to modify *Bordonabe Furniture*'s tabletops (design A for the first construction and design B for the second construction) to have similar proportions (2x1), to the extent they do not have similar proportions already. The resulting table would have been identical to the claimed design under either construction. It would have continued to have two equal-width boards (design A of *Bordonabe Furniture*) or unequal-width boards (design B of *Bordonabe Furniture*) appropriately modified with proportions similar to *Galant*.

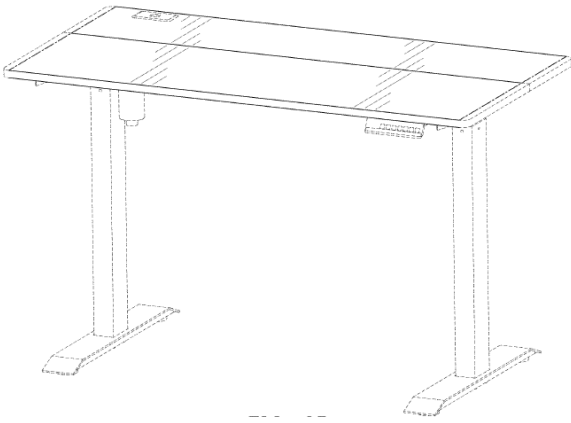
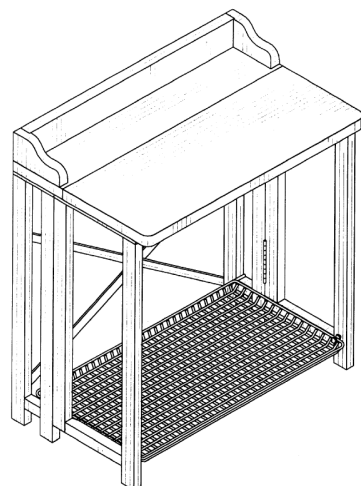
104. I cannot discern any other significant difference between the resulting tabletop and the claimed design that I have not already addressed above in this and the previous section on obviousness. For example, in the previous section, I already addressed why any edge profiling present in *Bordonabe Furniture* was a minor feature that *Bordonabe Furniture* did not focus on and why it would have been obvious to omit edge profiling to return the tabletop edges to the default square profile. I also addressed why it would have been obvious, in the case of construction 2, to vary the position of the off-center seam in the middle of the table. This applies only to the second construction, since the first construction permits the seam to be right in the middle of the table, which is shown in design A of *Bordonabe Furniture*. I do not see any other significant difference between the

tabletop that would result from combining *Bordonabe Furniture* with *Galant*. To the extent there are any, they are insignificant to the overall impression.

G. Ground 7—The Claim Is Anticipated by *Iannaccone*

105. In my opinion, under both constructions (both of which permit unequal-width boards), the claimed design is anticipated by *Iannaccone*.

106. *Iannaccone* shows the same overall visual impression as the claimed design—a tabletop made with unequal-width boards. As shown in the comparison below, *Iannaccone* has the same tabletop claimed in the '012 patent: one consisting of two unequal-width boards next to each other.

Table 10: Comparison of the '012 Patent and <i>Iannaccone</i>	
 Figure 23 of the '012 patent	 Figure 1 of <i>Iannaccone</i>

107. The above comparison shows that the two tabletops have the same design. This is true under both constructions because the first construction permits unequal-width boards and the second construction requires unequal width boards.

108. The tabletop in *Iannaccone* has exactly the same design as the claimed design because it is nothing more than two unequal-width boards placed side-by-side to form the tabletop surface. While *Iannaccone* includes an additional back piece that rests on the top surface of the table—specifically on the narrower board shown in Fig. 1—I do not consider this piece when comparing *Iannaccone*'s tabletop to the tabletop in the '012 patent. This is because the '012 patent shows only the tabletop in solid lines and specifically avoids claiming anything attached to the top, interior, and bottom of the tabletop.

109. In my opinion, an ordinary observer would consider the two tabletops to create substantially the same impression. The tabletops are basically the same, both having unequal-width boards abutted against each other to form the tabletop. Therefore, the ordinary observer would be deceived into believing the two tabletops have the same design.

110. I do not see any significant differences between the tabletops. They are both rectangular in shape and they both have the unequal-width boards arranged in the long direction. From a simple, ordinary visual inspection, with the level of acuity the ordinary observer would apply, the overall proportions of

Iannaccone's tabletop appear to be the same as the claimed design. However, on very close inspection I can see that *Iannaccone* is not quite as long as a 2x1 table. I do not view this as a substantial or significant difference, especially not to the overall impression. Without specifically looking for differences, an ordinary observer would not notice any difference in the overall tabletop proportions since both tables have a tabletop in the shape of a long rectangle.

111. Moreover, as I have noted above, I do not regard the overall tabletop proportions as an “ornamental” feature. In my view, the overall proportions of the table are almost purely a functional consideration based on how big of a table one wants. A writing desk, for example, would have a certain range of proportions while a dining table or coffee table would have another range of proportions. While it's true there might be some aesthetic reasons for avoiding (or desiring) extremely narrow tables (like 1x5 tables), in the range of proportions shown in *Iannaccone* and the '012 patent, where both tables are generally rectangular, the overall proportions of the tabletop are largely a functional consideration based on the overall size and application of the desired table. For example, some users may desire a slightly longer or shorter table to fit a particular room or application. It's my understanding that design patents do not cover such purely functional considerations because they are functional rather than ornamental in nature.

112. But even considering the overall tabletop proportions as an ornamental feature, it is my opinion that an ordinary observer would regard *Iannaccone* as having the same design as the '012 patent. As I noted, the difference in proportion is minor and requires effort to notice, with both tables being generally rectangular in overall shape. Although *Iannaccone* is slightly broader in its proportional width, its overall proportions are still in the form of a long rectangle with a clear long and short side. The boards also meet along the long dimension of *Iannaccone*, as is the case in the claimed design. In my opinion, there are at most insignificant differences between *Iannaccone* and the claimed tabletop design. The overall visual impression, that of a rectangular tabletop that is simply made by adjoining two unequal-width rectangular boards, is exactly the same between *Iannaccone* and the '012 patent. An ordinary observer would not view a table that is slightly longer or wider as a different design. Instead, an ordinary observer would view the slightly longer or shorter tabletop as having the same design, with the design used for a different application (e.g., a coffee table instead of a writing desk with the same design). In other words, an ordinary observer would likely look at *Iannaccone* and think that it has the same tabletop design claimed in the '012 patent, of two unequal-width boards.

H. Ground 8—The Claim Is Obvious Over *Iannaccone*

113. In my opinion, based on either construction, the claimed design is obvious in view of *Iannaccone* and the common knowledge of a designer having ordinary skill in the art.

114. As noted above in the “Legal Standards” section, I have been informed that obviousness requires a “primary” reference that creates basically the same visual impression as the claimed design. *Iannaccone* creates such an impression under the first construction. In fact, the previous section addresses why I believe *Iannaccone* anticipates the claimed design because an ordinary observer would regard the designs as being the same, regardless of the construction used. Accordingly, *Iannaccone* would also create the same basic visual impression as the claimed design: i.e., a tabletop formed from two unequal-width boards.

115. As also noted in the “Legal Standards” section, I am to ascertain the differences between the prior art (here, *Iannaccone*) and the claimed design. But as I explained in the previous section, there are practically no differences.

116. One possible difference between *Iannaccone*’s tabletop and the claimed tabletop that I can see is the overall proportions of the tabletop. As I explained above in the anticipation section, this is a minor difference and difficult to notice because both tabletops are already rectangular in shape with a clear long edge. Without specifically looking for this difference, it would be easy to miss.

117. Nonetheless, I can see upon very close inspection that *Iannaccone*'s tabletop is not quite twice as long as it is wide. As I noted in the previous section, my understanding is that purely functional considerations, like the overall proportions of the workspace created by a tabletop, are not “ornamental” in nature and therefore not available for design patent protection.

118. Even if that were not the case, however, varying the overall proportions of a tabletop would have been obvious to an ordinary designer. A designer with ordinary skill in the art would have had the common knowledge and skill to understand that any given table could be easily modified to be longer or shorter depending on the application—while retaining the same overall design. And an ordinary designer would have been motivated to modify the proportions of a table design to suit various applications. For example, a long tabletop (e.g., used as a dining or writing table) is easily shortened while retaining the same design, to serve applications typically involving shorter tables. In my opinion, changing the overall length and width of a tabletop borders on the trivial.

119. The only other possible difference between *Iannaccone* and the claimed design is the proportioning of the unequal-width boards. I don't see this as a major difference between *Iannaccone* and the claimed design. Both tabletops have a narrower and wider board and the overall proportioning between them is similar. This is not a case where the narrower board is extremely narrow when

compared to the wider board. Instead, the wider board in both cases appears to be less than twice the width of the narrower board. The overall visual impression created by both, without specifically taking out a measuring device and looking for minute differences, is the same—two unequal-width boards with different, but still generally similar widths. It is thus my opinion that there is no substantial difference in proportioning of the board widths between *Iannaccone* and the claimed design.

120. Nonetheless, even if there was a substantial difference, proportioning the boards in *Iannaccone* differently would have been trivially obvious.

Iannaccone itself suggests changing the proportions of the boards. As shown in Fig. 7 of *Iannaccone*, the wider board is able to fold down to allow the table to occupy less space when not in use. A designer of ordinary skill would have immediately understood (indeed, anyone can understand this) that the width of the wider board determines how much of the table is folded down and how much remains in the unfolded position. Increasing the width of the wider board relative to the narrow board allows the table to occupy less space, while decreasing the width of the wider board relative to the narrow board causes the table to occupy more space when folded down. Changing these proportions and making corresponding changes to the folding structure beneath the table, would have been extremely easy and obvious to an ordinary designer, if not trivial in nature.

Table 11: The wider board in *Iannaccone* folds down for a narrow footprint

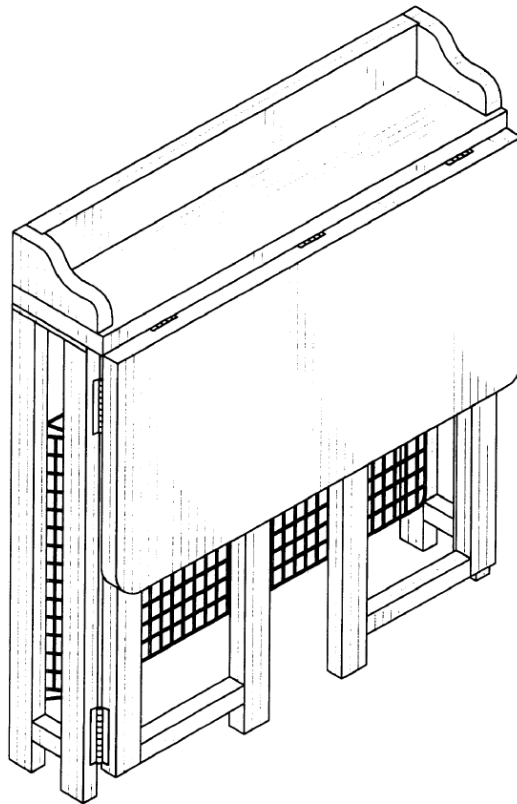


FIG. 7

Figure 7 of *Iannaccone*

121. An ordinary designer would have understood the pros and cons of varying the width of the boards based on the desired balance between (1) space saving and (2) usability of the table in its folded state. With a wider wide section, space saving would be increased, owing to less space being occupied when the table is folded down. The usability of the table, however, would decrease in the folded state, because less of the table remains usable, owing to a narrower narrow

board remaining in the horizontal position. The reverse is also true. An ordinary designer would also have understood the limits of proportioning the table board widths. For example, an ordinary designer would have understood that the wider board could not be widened so as to take up too much of the table width because the remaining narrow section would become too narrow, causing the table to lose stability when folded. Additionally, the wider section's width is somewhat limited by the table height as well. Other obvious, trivial constraints also exist such as limitations to the width of the wide, folding board based on the length of the table. Because the support legs are folded into the table in *Iannaccone* and are able to fit within the length of the table, the width of the wide section shouldn't be much greater than half the length of the table. These considerations and limitations are readily apparent and suggested by *Iannaccone* itself.

122. In the context of the '012 patent and the proportions in *Iannaccone*, it would have been obvious to vary the proportions of the boards within the range of the claimed design, where the wide plank, while not equal in width to the narrow plank, has a similar width that is less than twice the narrow plank's width.

Iannaccone already has a similar wider board. A wide board that is less than twice as wide as the narrow board does not even come up against the constraints noted in the preceding paragraph for extremely wide boards and also does not result in an unstable table (due to a narrow board that is too narrow). Within that range, a

person of ordinary skill would have found it obvious to vary the relative widths of the boards, based on the balance between usability and space savings.

123. I emphasize that balancing space saving and table usability for drop leaf tables was trivial in nature for an ordinary designer, in part because it has been done for hundreds of years. For example, U.S. Patent No. 860,822, issued in 1907, shows an early patent example of a “drop leaf” table. I have included Figure 3 from that patent below.

Table 12: The drop leaf table of U.S. Patent No. 860,822

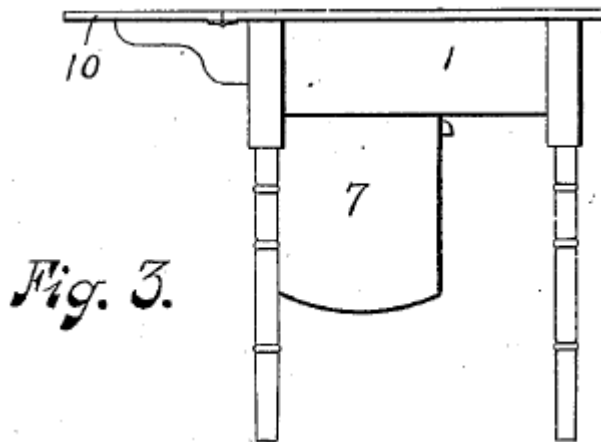


Figure 3 of U.S. Patent No. 860,822

124. I call this 1907 an “early patent example” because it’s an early patent, but not an early example of drop leaf tables. Drop leaf tables have been used for literally hundreds of years. For example, the Journal of Early Southern Decorative Arts traces the use of drop leaves, including both single and double leaf tables, in

early Scottish bedroom tables. See DAVIDSON, ELIZABETH A., *Research Note: Scottish Bedroom Tables from Scotland to the American South*, Journal of Early Southern Decorative Arts Vol. 42-43, available at <https://www.mesdajournal.org/2014/research-note-scottish-bedroom-tables-scotland-american-south/>. As noted in the journal, such drop leaf tables were used in Scotland as early as the 1700s. I've included a reproduction of several antique drop leaf tables from the journal below:

Table 13: Antique drop leaf tables



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

Journal of Early Southern Decorative Arts Vol. 42-43

125. I do not rely on these examples as prior art in any of the grounds of invalidity. I only reference these examples to support my opinion that it would have been trivially obvious to adjust the proportioning between the wide and narrow boards in *Iannaccone* based on functional considerations like space savings and usability of the table in the folded state. This is the case because drop leaf tables with leaves of various proportions have been used and in existence for at

least 300 years, if not longer. Thus, by 2019, an ordinary designer would have found it trivially obvious to vary the relative widths of the boards to permit the table in *Iannaccone* to occupy more or less space (and retain less or more usability while folded).

126. Thus, it is my opinion that a designer with ordinary skill would have known how and found it obvious to vary the proportioning between the wider and narrower board based on functionality and the balance between space savings and usability in the folded state.

127. I don't see any other differences between *Iannaccone* and the claimed design. If there are any, they are insignificant to the overall impression.

I. Ground 9—The Claim is Obvious Over *Galant* and *Iannaccone*

128. In my opinion, based on either construction, the claimed design is obvious in view of *Iannaccone* and *Galant*.

129. *Iannaccone* is a suitable primary reference, as I noted in the previous section. *Iannaccone* creates the same visual impression as the claimed design because it includes two unequal-width boards forming a tabletop, which is encompassed by the first construction and required by the second.

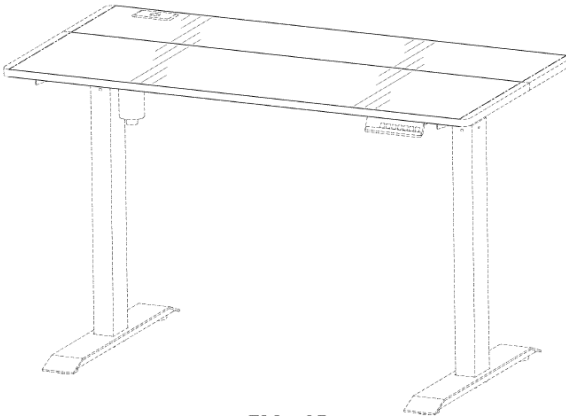
130. I also explained in the previous section that *Iannaccone*'s tabletop is basically identical to the claimed design with almost no differences. Like the '012 patent's tabletop, *Iannaccone*'s tabletop is rectangular and consists of two unequal-

width boards arranged in the long direction. There are basically no other features to even compare because the '012 patent claims a very simple two board tabletop.

131. One potential difference I can see between *Iannaccone* and the claimed design relates to the overall proportions of the tabletop. I already explained that this is not a difference in the “design” of the tabletop because it is functional in nature, depending on the overall desired workspace for the table. In the previous section, I explained that even if this was a difference, a designer of ordinary skill would have found it trivially obvious to vary the length and width of a given tabletop design to suit different applications. In short, an ordinary designer would have found it obvious to change a tabletop’s size by 2019.

132. Nonetheless, in the event more evidence is needed that the particular tabletop proportions claimed in the '012 patent would have been obvious to an ordinary designer, *Galant* is one example of such evidence. *Galant* shows an Ikea tabletop that has a length of 120cm and a width of 60 cm, forming a 2x1 tabletop.

133. *Galant*’s tabletop has the same proportions as the claimed design. I can see that the claimed design of the '012 patent is also in the form of a 2x1 tabletop (judging from the broken lines that form the end of the tabletop). In fact, as shown in the comparison between the claimed design and *Galant*, the tabletops are literally identical except for the seam that divides the two boards in the claimed design:

Table 14: Comparison between the claimed design of the '012 patent and <i>Galant</i>	
	
Figure 23 of the '012 patent	The <i>Galant</i> prior art reference

134. In my opinion, it would have been obvious to implement *Iannaccone* as a 2x1 tabletop in view of *Galant*. A designer of ordinary skill would have already found it obvious to vary the length/width of a given design, like the design in *Iannaccone*, for other applications. In view of *Galant*, a table from a popular, well-known furniture maker, it would have been obvious to implement the folding table in *Iannaccone* with those proportions. A designer of ordinary skill would have recognized that the *Galant* proportions was an example of desirable and appropriate proportions for a desk, whether to be used as a writing desk or computer desk. Implementing *Iannaccone*'s folding (really a drop leaf) table with the proportions of *Galant* would have beneficially and obviously created a table

the size of *Galant* that could fold, increasing versatility and allowing the table to be stored when not in use. This would have allowed, in a desk the size of *Galant*, the front (wider) board to fold down to lessen the space occupied by the desk when not in use, benefitting *Galant*-sized tables. Implementing *Iannaccone* with those proportions would have been an obvious and desirable option, so that the resulting table could be used as a desk while maintaining the versatility of a folding table. At a minimum, it would have been obvious to try to implement *Iannaccone* with such proportions.

135. In my opinion, implementing *Iannaccone* with the proportions of *Galant* would have led to predictable results, because there is nothing surprising or unexpected that would result from simply lengthening or shortening a tabletop. While the support mechanism underneath the table would also need to be appropriately lengthened (in the long direction) or shortened (in the short direction), that was well within the skill of an ordinary designer with experience in furniture design.

136. I have been informed (see Legal Standards section) that the secondary reference, here *Galant*, must be so related to the primary reference that the appearance of certain ornamental features in one would suggest the application of those features to the other. It is my opinion that *Galant* and *Iannaccone* could not be more related, as they both relate to tables, including tabletops. A designer of

ordinary skill would have thus immediately recognized that features, ornamental or not, from one reference could be easily applied to the other.

137. In view of *Galant*, it would have been obvious to modify *Iannaccone*'s tabletop to have similar proportions (2x1). The resulting table would have been basically identical to the claimed design under either construction because it would have continued to consist of two unequal-width boards as is the case in *Iannaccone*, appropriately modified (lengthened) to have proportions similar to *Galant*.

138. The only other potential difference between the combination and the claimed design is the proportioning between the wide and narrow board. Adjusting the proportion, however, would have been obvious based on functional considerations and is readily suggested by *Iannaccone*. I address why this is the case at length in the previous section, which explains why varying the proportions would have been obvious, the functional considerations behind varying the proportions, and why varying the width of a drop leaf was trivial in view of the 300+ year history of drop leaf tables.

139. I cannot discern any other difference between the resulting tabletop and the claimed design. To the extent there are any, they are insignificant to the overall impression.

IX. Conclusion

140. Having reviewed the '012 patent and the relevant prior art, it is my conclusion that:

141. The '012 patent is invalid under at least 35 U.S.C. §§ 102 and/or 103.

142. Under the first construction, the claimed design of the '012 patent is anticipated by *Morgan* or rendered obvious by *Morgan* as a single reference.

143. Under the first construction, the claimed design of the '012 patent is rendered obvious by *Morgan* and *Galant*.

144. Under the first construction, the claimed design of the '012 patent is anticipated by *Bordonabe Furniture* design A or rendered obvious by *Bordonabe Furniture* design A.

145. Under both constructions, the claimed design of the '012 patent is anticipated by *Bordonabe Furniture* design B or rendered obvious by *Bordonabe Furniture* design B.

146. Under the first construction, the claimed design of the '012 patent is rendered obvious by *Bordonabe Furniture* design A and *Galant*.

147. Under both constructions, the claimed design of the '012 patent is rendered obvious by *Bordonabe Furniture* design B and *Galant*.

148. Under both constructions, the claimed design of the '012 patent is anticipated by *Iannaccone* or rendered obvious by *Iannaccone* as a single reference.

149. Under both constructions, the claimed design of the '012 patent is rendered obvious by *Iannaccone* and *Galant*.

150. In signing this declaration, I understand that the declaration will be filed as evidence in a contested proceeding before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I hereby acknowledge that I could be subject to cross-examination in this proceeding and that cross-examination will take place within the United States of America. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross examination.

151. I declare that all statements made herein of my knowledge are true, that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Date: 3/3/2023

By:



Paul Hatch