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## IN RE KLEIN

### 647 F.3D 1343 (FED. CIR. 2011)

#### I. INTRODUCTION

In *In re Klein*, the United States Court of Appeals for the Federal Circuit considered a patent applicant's appeal from a United States Patent and Trademark Office Board of Patent Appeals and Interferences ("BPAI") decision.<sup>1</sup> The application filed by Arnold Klein was for a mixing device with movable dividers to prepare varying concentrations of sugar-water nectar found in bird and butterfly feeders.<sup>2</sup> While the BPAI rejected five of the patent application's claims for obviousness, the Federal Circuit reversed the application's rejection.<sup>3</sup> The Federal Circuit concluded that the cited references were not encompassed by the scope of analogous art because they did not address the same problem as the patent application.<sup>4</sup> This decision may help inventors overcome obviousness rejections in the patent prosecution process.

#### II. BACKGROUND

Klein's patent application number 10/200,747 ("the '747 application"), "Convenience Nectar Mixing and Storage Devices," detailed a separating and mixing device with a movable divider for sugar-water solutions used in bird and butterfly feeders.<sup>5</sup> The device was lined with a series of rails that a divider could fit into

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1. *In re Klein*, 647 F.3d 1343, 1345 (Fed. Cir. 2011).

2. *Id.*

3. *Id.* at 1352.

4. *Id.*

5. *Id.* at 1345.

creating two separate compartments of sugar and water.<sup>6</sup> Since the divider could move to various positions, the device could be used for varying sugar-water nectar concentrations.<sup>7</sup> After filling the two separate compartments with sugar and water, the divider could be removed and the sugar and water would mix together.<sup>8</sup>

The only independent claim in the '747 application, claim number 21, stated:

A convenience nectar mixing device for use in preparation of sugar-water nectar for feeding hummingbirds, orioles or butterflies, said device comprising: a container that is adapted to receive water, receiving means fixed to said container, and a divider movably held by said receiving means for forming a compartment within said container wherein said compartment has a volume that is proportionately less than a volume of said container by a ratio established for the formulation of sugar water nectar.<sup>9</sup>

The patent examiner rejected the '747 application for obviousness under the Patent Act.<sup>10</sup> Claim 21 was rejected over the Roberts, Kirkman, O'Connor, Greenspan, and De Santo patents.<sup>11</sup>

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6. *Id.* The device claimed in the '747 application has the appearance of a liquid measuring cup. *Id.* The removable divider is inserted vertically into rails lining the inside the device. *Id.* After both the sugar and water are added, the divider is removed—allowing the sugar-water solution to be poured into a feeder. *Id.*

7. *Klein*, 647 F.3d at 1345. The device claimed in the '747 application could be adjusted to one part sugar to four parts water, one part sugar to six parts water, and one part water to nine parts sugar for hummingbird, oriole, and butterfly nectars respectively. *Id.* These ratios were known from previous scientific literature. *Id.*

8. *Id.*

9. *Id.* at 1346.

10. *Id.*

11. *Id.* The patents identified by the USPTO were U.S. Patent No. 580,899 ("the Roberts patent"), U.S. Patent No. 2,985,333 ("the Kirkman patent"), U.S.

BPAI affirmed the examiner's rejections on the same grounds.<sup>12</sup> BPAI noted that these references showed containers with movable dividers held in place by fixed "receiving means" in order to divide ingredients in specific ratios.<sup>13</sup> BPAI had concluded that Klein was concerned with making a container with a movable divider to prepare different ratios of sugar and water.<sup>14</sup> Based on the other patents with movable dividers and Klein's own statement that the sugar-to-water ratios were previously known, BPAI concluded that the '747 application was obvious.<sup>15</sup> BPAI focused exclusively on whether the cited references were reasonably pertinent to Klein's particular problem, stating that a reference is reasonably pertinent if it "logically would have commended itself to an inventor's attention in considering his problem."<sup>16</sup> BPAI specifically focused on the narrow problem that Klein addressed: preparing differing ratios of sugar and water for hummingbirds, orioles, and butterflies.<sup>17</sup>

Klein agreed with BPAI's conclusion as to the field of the invention—"making a nectar feeder with a movable divider to prepare different ratios of sugar and water for different animals"—but argued that the cited references were concerned with different problems and, therefore, not reasonably pertinent.<sup>18</sup> BPAI did not sufficiently show evidence, Klein argued, to support its contention

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Patent No. 1,523,136 ("the O'Connor patent"), U.S. Patent No. 2,787,268 ("the Greenspan patent"), and U.S. Patent No. 3,221,917 ("the De Santo patent").

12. *Id.* at 1347.

13. *Klein*, 647 F.3d at 1347.

14. *Id.* at 1348. In the government's appellate brief, they contended that Klein's problem was merely compartment separation. Paul Cole, *In re Klein-A Breakthrough for Patents as to Non-Analogous Art Before the USPTO?*, PATENTLY-O BLOG (Jun. 8, 2011, 8:07 AM), <http://www.patentlyo.com/patent/2011/06/in-re-klein-a-breakthrough-for-arguments-as-to-non-analogous-art-before-the-uspto.html>. The government argued that the '747 application should not be granted because it only applies a compartment separation solution to a particular application. *Id.* However, the Federal Circuit dismissed this reasoning for procedural reasons—the government could not narrow the field of the invention from what was concluded by BPAI. *Id.*

15. *Klein*, 647 F.3d at 1348.

16. *Id.*

17. *Id.*

18. *Id.*

that Klein would have looked to the cited references when inventing the device claimed in the '747 application.<sup>19</sup>

### III. SUBJECT OPINION

On appeal to the Federal Circuit, Klein argued that BPAI lacked evidence to reinforce its finding that the cited references were reasonably pertinent to his same problem, and were therefore non-analogous art.<sup>20</sup> However, the government contended that Klein's problem was not unique to the application of sugar-water nectar mixing devices, and that he would have reasonably turned to the cited references for containers with adjustable, removable dividers to separate ingredients.<sup>21</sup>

The Federal Circuit's analysis focused on determining the scope of prior art by applying the analogous art test.<sup>22</sup> The court continued its examination by applying the analogous art test to each of the five aforementioned references in order to determine whether they were within the scope of the '747 application's prior art.<sup>23</sup>

#### *A. Analogous Art Test*

Klein's device could not be patented under the Patent Act if its change, compared to prior art, would have been obvious at the time the device was made to a person of ordinary skill in the art of the device's subject matter.<sup>24</sup> Obviousness is a question of law based on factual findings—the scope and content of the prior art, the level of ordinary skill in the pertinent art, the differences between the claimed invention and the prior art, and evidence of secondary factors.<sup>25</sup> Prior art under section 103, however, only

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19. *Id.*

20. *Id.* at 1347.

21. *Klein*, 647 F.3d at 1348.

22. *Id.*

23. *Id.*

24. *Id.* (citing 35 U.S.C. §103(a) (2006)).

25. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). Secondary considerations include commercial success, long felt need, and the failure of others. *Id.*

includes that which is analogous to the claimed invention.<sup>26</sup> Whether or not a reference is analogous, the court stated, is determined by two tests: whether the art is from the same field of endeavor regardless of the problem addressed, and if not, whether the references were reasonably pertinent to the problems addressed by Klein.<sup>27</sup> The Federal Circuit only relied on the second part of the analogous art test, because the prior art references were not within the same field of endeavor as the '747 application. However, if the prior art references were in Klein's field of endeavor of nectar feeding for hummingbirds, orioles, and butterflies, the references would be analogous even if addressing a different problem than Klein. Demands in the design community or in the market would have driven Klein to come up with a solution for the known problem.<sup>28</sup>

### B. References

The Federal Circuit examined each of the five references the patent examiner identified to determine each patents' scope.<sup>29</sup> The court found that the first three patents—the Roberts, O'Connor, and Kirkman patents—could only be used to separate solid objects, because of their inability to hold liquids.<sup>30</sup> The other two patents—the Greenspan and De Santo patents—could be used to separate, contain, and mix liquids, but only in one fixed ratio.<sup>31</sup>

The Federal Circuit agreed with Klein's argument that none of the first three patents could hold water.<sup>32</sup> First, the court agreed with Klein's argument that each receptacle in the Roberts patent had a hole in which a person could reach into for the items inside.<sup>33</sup>

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26. *Innovention Toys, LLC v. MGA Entm't, Inc.*, 637 F.3d 1314, 1322 (Fed. Cir. 2011).

27. *Klein*, 647 F.3d at 1348 (citing *In re Birgio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004)).

28. *KSR Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

29. *Klein*, 647 F.3d at 1348.

30. *Id.* at 1350.

31. *Id.* at 1352.

32. *Id.* at 1350.

33. *Id.* Roberts addressed an apparatus designed to separate bank statements. *Id.* at 1349. The apparatus was divided into receptacles with a series of vertical

The receptacles in the Roberts patent were designed solely to receive and to separate statement cards but not to facilitate any sort of mixing—a fact even BPAI had acknowledged.<sup>34</sup> Secondly, the compartments in the O'Connor patent were designed to separate tools and other construction items.<sup>35</sup> The O'Connor patent was also unable to receive water because one of the dividers in the tool tray was not flush with the bottom tray.<sup>36</sup> Finally, the Kirkman patent, described a “plastic cabinet drawer with removable partitions” that could be adjustably partitioned into two or more compartments to keep small household articles separated.<sup>37</sup> Similarly, one of the partitions in the Kirkman patent had a notch that made holding water impossible.<sup>38</sup>

The Federal Circuit found that the Greenspan and De Santo patents lacked the movable dividers that the '747 application required.<sup>39</sup> In the Greenspan patent, the wall between two liquid compartments was not adjustable and would facilitate mixing when “unplugged.”<sup>40</sup> The partition in the De Santo patent was permanently fixed with a valve that could be opened to mix liquids contained in two compartments.<sup>41</sup> Therefore, the compartment sizes in both the Greenspan and De Santo patents could not be changed and these prior art references could not be used to create varying ratios of their respective solutions.<sup>42</sup>

After examining all five patents, the court concluded that Klein's application was not analogous to any of them.<sup>43</sup> The court

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receiving channels. *Id.* The receiving channels were designed to receive removable dividers, as with the series of rails in the '747 application. *Id.* at 1348.

34. *Id.* at 1349-50.

35. *Klein*, 647 F.3d at 1350.

36. *Id.*

37. *Id.* at 1350.

38. *Id.*

39. *Id.* at 1352.

40. *Id.* at 1351. The Greenspan patent described a blood plasma bottle with separate compartments for dried plasma and water. *Id.* When the plasma was ready for use, the plasma compartment was released into the water compartment so that the two could be mixed and the plasma could dissolve into the water. *Id.*

41. *Klein*, 647 F.3d at 1351.

42. *Id.* at 1352.

43. *Id.*

found that BPAI erroneously concluded that the references were within the scope of analogous art.<sup>44</sup> The Federal Circuit held that there was insufficient evidence to show that the references were within the scope of analogous art, nor would Klein have cited any of the references.<sup>45</sup>

#### IV. FUTURE IMPLICATIONS

The *In re Klein* decision reaffirms the traditional analogous art standard to determine the scope of prior art. *Klein* is especially important for patents combining multiple aspects from multiple prior art patents, as the Federal Circuit strictly construed the “reasonably pertinent” part of the analogous art test to require prior art to be entirely pertinent to the inventor’s problem.<sup>46</sup>

This decision by the Federal Circuit is particularly notable because the court did not cite or use the obviousness standard from the Supreme Court’s *KSR Co. v. Teleflex Inc.* decision. While *KSR* did not directly discuss analogous art, the Supreme Court stated that the guiding principle for obviousness determinations was the objective reach of the claim and not the particular motivation or avowed purpose of the inventor.<sup>47</sup> The Supreme Court’s ruling in *KSR* overruled long-standing Federal Circuit jurisprudence that combining prior patents requires a teaching, suggesting, or motivation to combine the prior art in a certain way.<sup>48</sup> Specifically, in *KSR*, the Court noted errors in the Federal Circuit’s teaching-suggestion-motivation test—“that courts and patent examiners should look only to the problem the patentee was trying to solve . . . [and the] assumption that a person of ordinary skill

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44. *Id.*

45. *Id.* Klein also argued that BPAI erred in finding the rejected claims obvious and not considering Klein’s evidence of “long felt need to rebut the *prima facie* case of obviousness.” *Id.* The Federal Circuit explained that it did not need to reach Klein’s additional arguments because the references were non-analogous, they were discounted as prior art, and the ‘747 application could not be rejected for obviousness. *Id.*

46. *Id.* at 1348.

47. *KSR Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

48. Jeffrey T. Burgess, *The Analogous Art Test*, 7 BUFF. INTELL. PROP. L.J. 63, 68 (2009).

attempting to solve a problem will be led only to . . . prior art designed to solve the same problem.”<sup>49</sup> The *KSR* approach to obviousness asks whether “any need or problem known in the field of endeavor” would have motivated the inventor.<sup>50</sup> Even when a prior art reference only covered a part of the patent, the patent could be obvious since an inventor of “ordinary creativity” would have been able to see the prior art past its primary purpose and combine it with additional prior art.<sup>51</sup>

The *KSR* holding has significantly impacted how obviousness determinations are examined, and the USPTO has interpreted *KSR* to have expanded the scope of analogous art.<sup>52</sup> The Federal Circuit itself applied the *KSR* standard in *Innovention Toys, LLC v. MGA Entertainment*, reversing a non-obviousness determination of the district court.<sup>53</sup> The court held in *Innovention* that an inventor of ordinary skill in the art would have been motivated to combine teachings from separate prior art patents.<sup>54</sup>

With *Klein*, the Federal Circuit reaffirms the traditional analogous art test to define the scope of prior art.<sup>55</sup> The Federal Circuit’s analysis suggests that the court did not interpret *KSR* to have changed the analogous art test. Any prior art that is not within the inventor’s field of endeavor or reasonably pertinent to the inventor’s problem is excluded from obviousness considerations.<sup>56</sup> With the “reasonably pertinent” test for analogous art, a court will either look to explicit specifications in the patent application, the nature of the invention, or even an

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49. *KSR*, 550 U.S. at 414.

50. *Id.*

51. *Id.* at 420. “As out precedents make clear . . . the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.*

52. Dennis Crouch, *In re Klein: Analogous Art Test as the New Structure for Non-Obviousness Determinations*, PATENTLY-O BLOG (Jun. 7, 2011, 2:36 PM), <http://www.patentlyo.com/patent/2011/06/analogous-art.html>.

53. *Innovention Toys, LLC v. MGA Entertainment, Inc.*, 637 F.3d 1314, 1323 (Fed. Cir. 2011).

54. *Id.*

55. *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011).

56. *Id.*

affidavit from the inventor to determine the actual problem.<sup>57</sup> When defining the problem, an inventor can define a singular narrow purpose of the invention. For example, Klein claimed his device was for separating and mixing varying concentrations of sugar and water nectar instead of only claiming that his device would solve a compartment separation problem.<sup>58</sup> Possibly, Klein did not want or expect to receive revenue from the use of his device beyond mixing nectar or he did not want the scope of the claims in the '747 patent application to diverge into prior art of different fields that could render his claims obvious. More than likely, however, since Klein represented himself through patent prosecution, he did not know the legal intricacies of claim drafting and interpretation.<sup>59</sup> By defining his purpose so narrowly, Klein ensured that the Roberts, O'Connor, Kirkman, Greenspan, and De Santo patents were excluded as prior art references because each addressed only a part of his singular narrow purpose.

*Klein's* ruling will help inventors in the patent prosecution process. Under the Federal Circuit's restrictive analogous art test, an inventor, as mentioned above, can set forth a singular, narrow purpose in his patent application. He can then work within his field of endeavor and prior art that is pertinent to the entire problem he is addressing to make sure his invention will not be deemed obvious. However, inventors still need to comply with the obviousness standard from *KSR*. *Klein* may be limited in the future because the opinion did not cite *KSR*, but both decisions provide guidance to obviousness decisions. The *KSR* test incorporates a large amount of flexibility into the traditional analogous art test; however, this flexibility introduces uncertainty into the determination of the scope of prior art. Inventors still need to investigate prior art that only addressed part of their problems, possibly requiring extraordinary research skills, time, and resources.

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57. Burgess, *supra* note 48, at 75.

58. *Klein*, 647 F.3d at 1345.

59. Crouch, *supra* note 52. Klein prepared his own opening brief for the appeal to the Federal Circuit, after which an attorney stepped in to represent him. *Id.*

However, inventors need to be mindful that a narrow purpose may restrict the claim scope during claim construction and a court's analysis of infringement in the doctrine of equivalents.<sup>60</sup> While Klein, for example, may have a valid patent as per the Federal Circuit, his singular narrow purpose may narrowly construe the scope of his claims and, therefore, the boundaries of his legal protection. Klein would face difficulties when trying to enforce its patent in infringement litigation. Inventors such as Klein should be mindful of this balance in light of the purposes for which they seek patent protection.

#### V. CONCLUSION

*In re Klein* held that Klein's patent application was not obvious because the five patents identified by the USPTO were not encompassed within the '747 application's analogous art.<sup>61</sup> Because the patents either separated solid objects or facilitated the mixing of liquids, but not both, the Federal Circuit held that the problems each patent addressed were not entirely pertinent to Klein's patent application's narrow purpose.<sup>62</sup> This holding will help inventors in the patent prosecution process by providing limiting guidelines to the scope of prior art. Additionally, this holding may have implications on how narrowly or broadly inventors draft claims for a patent application.

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60. *Id.*

61. *Klein*, 647 F.3d at 1352.

62. *Id.*

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