

## The KSR Standard for Patentability

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### Introduction

There has been much speculation about how the courts and the United States Patent & Trademark Office (USPTO) will determine obviousness following the Supreme Court's decision in *KSR v. Teleflex*<sup>1</sup>. Although a teaching, suggestion or motivation (TSM) in the prior art can continue to render an invention obvious, *KSR* holds that an invention may still be obvious in the absence of such a teaching, suggestion or motivation<sup>2</sup>. In other words, the Court struck down any requirement that there must be a teaching, suggestion or motivation (TSM) in order to hold an invention obvious<sup>3</sup>. All of the speculation resides in what alternative test is to be applied to render an invention obvious in the absence of a teaching, suggestion or motivation.

This paper suggests that an alignment of the *KSR* decision with all of the previous Supreme Court decisions and an organization of the dicta in the *KSR* decision sets forth an alternative common sense<sup>4</sup> selection (CSS) test. The common sense selection (CSS) test holds that the mere selection of elements from various prior art references and combining them together *with no change in their respective functions* is a matter of common sense to one skilled in the art, and, therefore, obvious and not patentable. On the other hand, a combination that includes something new or produces a new function or an unpredictable result remains potentially patentable, i.e., not obvious. In other words, a new "what is it" or a new "what does it do" remains patentable. Even then, cogent reasoning can render an invention obvious so long as the reasoning is unequivocally independent of hindsight. The *KSR* decision strengthened the patent system by focusing on novelty for patentability rather than unpatentable combinations of "old elements with no change in their respective functions . . . ."<sup>5</sup>

### Background

Novelty has long been a requirement of patentability, and asks whether each and every component of a patent claim is

1 *KSR Int'l v. Teleflex, Inc.*, 82 U.S.P.Q.2d 1385 (U.S. 2007).  
 2 See *Id.* at 1389.  
 3 See *Id.*  
 4 "Common Sense" is mentioned five times in *KSR*.  
 5 *Id.* at 1395.

shown in a single reference.<sup>6</sup> Understandably, a single prior art reference to meet all limitations in a claim is difficult to find. More commonly, a reference must be modified by combining it with other teachings to support a rejection of a patent. This need to find a standard to render a combination unpatentable has been recognized for over 150 years. For example, the Supreme Court, in *Hotchkiss*, held that a patent would not

6 *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715 (Fed. Cir. 1984).

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be valid if it was merely “the work of the skilled mechanic, not that of the inventor.”<sup>7</sup> Subsequently, the drafters of the 1952 act proposed a revision that would preclude patentability “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.”<sup>8</sup>

“In *Graham v. John Deere Co.*, the Court set out a framework for applying the statutory language of § 103.”<sup>9</sup> In accordance with *Graham*, the fact finder should determine “the scope and content of the prior art,” ascertain the “differences between the prior art and the claims at issue,” and resolve “the level of ordinary skill in the pertinent art.”<sup>10</sup> Against this background, the courts have endeavored to develop more objective tests to separate obvious subject matter from nonobvious subject matter.

“Seeking to resolve the question of obviousness with more uniformity and consistency, the Court of Appeals for the Federal Circuit (CAFC) has employed an approach, first developed by the CCPA, referred to as the ‘teaching, suggestion, or motivation’ test (TSM test).”<sup>11</sup> The TSM test holds that it is obvious to combine old elements if the prior art taught, suggested, or motivated one skilled in the art to make the combination.<sup>12</sup> However, as the test was further developed, the negative application of the test was applied, i.e. an invention was non-obvious, and hence patentable, if the prior art lacked a teaching, suggestion, or motivation. Rejections by the USPTO have been overcome merely by arguing that the references lacked a “teaching, suggestion, or motivation” thereby rendering an examiner helpless. In *KSR*, the Supreme Court held that this negative application “limits the obviousness inquiry.”<sup>13</sup> The Court rejected the negative proposition that the absence of TSM ipso facto overcame a rejection based upon obviousness, which will tilt the scales back in favor of the USPTO examiners.

7 *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248, 267 (1851).

8 35 U.S.C. § 103(a).

9 *KSR*, 82 U.S.P.Q.2d at 1391 citing (*Graham v. John Deere Co. of Kansas City*, 148 U.S.P.Q. 459, 383 U.S. 1 (1966)).

10 *Graham*, 148 U.S.P.Q. at 467, 383 U.S. at 17.

11 *KSR*, 82 U.S.P.Q.2d at 1391.

12 See *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 80 U.S.P.Q.2d 1641, 1645, 464 F.3d 1356, 1361 (Fed. Cir. 2006) (discussing the TSM test as a “subsidiary requirement” of the *Graham* factors); *McGinley v. Franklin Sports, Inc.*, 60 U.S.P.Q.2d 1001, 1008, 262 F.3d 1339, 1351 (Fed. Cir. 2001) (discussing the suggestion to combine as part of the scope and content of the prior art and the level of skill in the art); *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH.*, 45 U.S.P.Q.2d 1977, 1981-83, 1986, 139 F.3d 877, 881-83, 886 (Fed. Cir. 1998) (discussing the suggestion as part of the scope and content of the prior art), and *Ruiz v. A.B. Chance, Inc.*, 69 U.S.P.Q.2d 1686, 1691, 357 F.3d 1270, 1275 (Fed. Cir. 2004) (discussing how the suggestion test fulfills the policy statements in § 103). Such an evolution was specifically contemplated by this Court when it laid down the policy. *Graham*, 148 U.S.P.Q. at 468, 383 U.S. at 18 (noting that this test “should be amenable to a case-by-case development”) (emphasis added).

13 *KSR*, at 1397.

Thus, there is a gap to fill. While a TSM will demonstrate obviousness, it is not mandatory. Instead, other tests may be used to do so. We suggest in this paper the common sense selection test, as being consistent with the development of obviousness caselaw since even before the inception of § 103.

## The Consistent Development of the Law of Obviousness by the Supreme Court Since 1850

In *KSR*, the Court acknowledged that 35 U.S.C. § 103 is a codification of the “logic of . . . *Hotchkiss v. Greenwood*.”<sup>14</sup> An invention is obvious, and therefore not patentable, “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”<sup>15</sup> As the law of patentability developed, a threshold bar is established that, in situations where all of the elements of the claimed invention are found in the prior art, a patent will issue only to those combinations that produce a new and useful result. Even then, if cogent reasoning, based in no part upon hindsight, demonstrates predictability of the new result, a patent will not issue. Therefore, the mere selection of old elements with no change in their respective functions cannot be said to yield a result which is both new and unexpected, i.e., the results were predictable.

### *Hotchkiss v. Greenwood*<sup>16</sup>

The patent in question in *Hotchkiss* was US Patent No. 2,197, issued to *Hotchkiss, et al.* on July 29, 1841, for a method of manufacturing a clay door knob connected to a metal shank and neck.<sup>17</sup> The means of assembling the clay knobs, shanks and spindles was well known in the art, as was the means of joining the shank and spindle to the knob.<sup>18</sup> The plaintiffs argued that although the clay knob, the shank, and the spindle were individually known in the art, they had never been combined, and the combination resulted in a cheaper, easier to manufacture door handle.<sup>19</sup> The Supreme Court held that although the “mode of fastening the shank to the clay knob” resulted in a knob that “was made firm and strong, and more durable,” it was a predictable, and thus an expected result, because of the same phenomenon being known in knobs made of other materials.<sup>20</sup> Therefore, the Supreme Court ordered the patent void. There was no new element or new function or unpredictable result. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

14 *Id.* at 1391 (citing *Hotchkiss v. Greenwood*, 52 U.S. 248, 11 How. 248 (1850)).

15 35 U.S.C. § 103.

16 *Hotchkiss*, 52 U.S. 248.

17 *Id.* at 250.

18 *Id.* at 255.

19 *Id.* at 252.

20 *Id.* at 266-67.

### *Webster Loom Co. v. Higgins*<sup>21</sup>

Similarly, in *Webster Loom*, the Supreme Court noted that the patent described a complex loom assembly that was made up of elements from prior art assemblies and that a known pusher was substituted for a latch riding on a wire-bar.<sup>22</sup> The Court said,

It is further argued, . . . that the combination set forth in the fifth claim is a mere aggregation of old devices, already well known; and therefore it is not patentable. This argument would be sound if the combination claimed by Webster was an obvious one for attaining the advantages proposed, -one which would occur to any mechanic skilled in the art. But it is plain from the evidence, and from the very fact that it was not sooner adopted and used, that it did not, for years, occur in this light to even the most skilful persons. It may have been under their very eyes, they may almost be said to have stumbled over it; but they certainly failed to see it, to estimate its value, and to bring it into notice. . . . Now that it has succeeded, it may seem very plain to any one that he could have done it as well. This is often the case with inventions of the greatest merit. It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention. It was certainly a new and useful result to make a loom produce fifty yards a day when it never before had produced more than forty; and we think that the combination of elements by which this was effected, even if those elements were separately known before, was invention sufficient to form the basis of a patent.<sup>23</sup>

The Supreme Court reversed the lower court and held the patent valid. Specifically, when a combination of admittedly old elements “produce[d] a new and beneficial result, never attained before, it is evidence of an invention.”<sup>24</sup> Although each of the elements in the combination was found individually in the prior art references, the combination of old elements produced a new and unpredictable result, i.e., a 25% increase in weaving production from 40 to 50 yards per day.

### *Expanded Metal v. Bradford*<sup>25</sup>

In *Expanded Metal*, the invention related to an advance in the method of producing expanded metal by making cuts or slashes in a metal sheet and then opening them to present an open mesh appearance.<sup>26</sup> The process steps claimed by the patent were known in separate prior art references, but had never been combined before into a single process. The court noted that

21 *Loom Co. v. Higgins*, 105 U.S. 580 (1881).

22 *Id.* at 581.

23 *Id.* at 591-92 (noting that the combination in the '961 patent produced approximately a 25% improvement over the prior art).

24 *Id.* at 591.

25 *Expanded Metal Co. v. Bradford*, 214 U.S. 366 (1909).

26 *Id.* at 374.

“[i]t is the result of the two operations combined which produces the new and useful result covered by the claim allowed in the Patent Office, and, which, when read in connection with the specifications, shows substantial improvement in the art of making expanded metal work . . . . It is perfectly well settled that a new combination of elements, old in themselves, but which produce a new and useful result, entitles the inventor to the protection of a patent.”<sup>27</sup>

Accordingly, the combination of old steps produced a new and unpredictable result, and was patentable

### *Great Atlantic and Pacific Tea Co. v. Supermarket Equip. Corp.*<sup>28</sup>

In *Great A&P*, the patent in question was US Patent No. 2,242,408, issued to E.D. Turnham on October 28, 1938 and the invention claimed was for a cashier's checkout stand including a three sided rack which will pull groceries from the customer to the cashier.<sup>29</sup> The rack is then pushed back to its original position for the next customer to fill while leaving the groceries with the cashier.<sup>30</sup> Each of the elements of the combination was found in the prior art, and the combination was successful at reducing the time customers spent at the checkout line and was widely used and adopted. However, despite the commercial success of the combination, the Supreme Court held that the combination was obvious, and therefore not patentable, because a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known in the field of its monopoly and diminishes the resources available to skillful men.”<sup>31</sup> It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

### *Graham v. Deere*<sup>32</sup>

The patent in question in *Graham* was US Patent No. 2,627,798, issued to W.T. Graham on February 10, 1953.<sup>33</sup> The mechanism was basically a hinge having a lower hinge plate to which is attached a shank running the length of the hinge plate and then rearward through several feet of curving down to a tiller shoe or plow.<sup>34</sup> During the tilling, the shank is urged away from the lower surface of the hinge plate, so a bolt was inserted to maintain a connection between the two

27 *Id.* at 380.

28 *The Great Atlantic and Pacific Tea Co. v. Supermarket Equipment Corp.*, 87 U.S.P.Q. 303, 340 U.S. 147 (1950).

29 *Id.* at 304, 340 U.S. at 149.

30 *Id.*

31 *Id.* at 306, 340 U.S. at 153.

32 *Graham*, 383 U.S. 1.

33 *Id.* at 461, 383 U.S. at 4.

34 *Id.* at 468, 383 U.S. at 19-21.

elements.<sup>35</sup> The prior art disclosed the shank attached to the top surface of the lower hinge plate.<sup>36</sup> A bolt was not needed in the prior art because the tilling action urged the shank against the top surface of the hinge plate. The issue was whether or not it was patentable, i.e., obvious, to attach the shank to the lower surface of the hinge plate and to insert a bolt to retain the shank to the hinge plate.

The court found all of the elements to be known in the prior art and the only difference was the arrangement of the parts, i.e. repositioning the shank from the top surface of the lower hinge plate to the lower surface without a new function; albeit the petitioner argued various advantages of the arrangement.<sup>37</sup> The Supreme Court stated, “a person having ordinary skill in the prior art, given the fact that the flex in the shank could be utilized more effectively if allowed to run the entire length of the shank, would immediately see that the thing to do was what Graham did, i.e., invert the shank and hinge plate.”<sup>38</sup> The court essentially held that it would be common sense to use a bolt to retain the shank to the lower surface hinge plate. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

#### ***Anderson's-Black Rock v. Pavement Co.***<sup>39</sup>

US Patent No. 3,055,280 issued to Charles Neville on Sept. 25, 1962 discloses a combination of a burner, a spreader, and a taper/screed into a single chassis to be pulled by a truck.<sup>40</sup> This combination had the distinct advantage of allowing a single worker to quickly and efficiently control all three tools simultaneously, thereby reducing labor costs and time. The prior art demonstrated that the three items were separate and independently controlled during the process of laying asphalt.<sup>41</sup> However, the Supreme Court still held the invention obvious because each of the elements of the combination was known in the prior art and the result was predictable because each element functioned in the same way as it did in the prior art.<sup>42</sup> This case is further differentiated from, for example *Webster Loom*, because the lower court had specifically found that the prior art method of tandem operation “worked just as well as the invention.” The Court accepted this factual determination, and thus there was no new and useful result demonstrated that would save this aggregation of elements from a holding of invalidity.

Similarly, the location of each element relative to the others was known because the elements in the ‘280 patent were arranged in a side-by-side order and workers were known to walk beside

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 468, 469, 383 U.S. at 22-23.

<sup>37</sup> *Id.* at 469, 383 U.S. at 23.

<sup>38</sup> *Id.* at 469, 383 U.S. at 25.

<sup>39</sup> *Anderson's Black Rock, Inc. v. Pavement Salvage Co.*, 163 U.S.P.Q. 673, 396 U.S. 57 (1969).

<sup>40</sup> *Id.* at 673-74, 396 U.S. at 57-58.

<sup>41</sup> *Id.* at 675, 396 U.S. at 59.

<sup>42</sup> *Id.*

each other while each operated his own tool.<sup>43</sup> There was no new element or new function or unpredictable result. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

#### ***Sakraida v. AG Pro, Inc.***<sup>44</sup>

US Patent No. 3,223,070, issued to DJ Gribble et al. on December 14, 1965 discloses a barn-cleaning apparatus including a bucket of water.<sup>45</sup> Tipping the bucket over caused an abrupt release of water onto a smooth barn floor.<sup>46</sup> The water then picked up and swept away cow manure from the floor in a quick and easy manner.<sup>47</sup> The prior art included systems for cleaning a barn floor with water by spraying the manure with a hose.<sup>48</sup> However, the hose does not have the same efficiency as the bucket because a hose does not provide for an abrupt release of water, but instead provides a steady stream of water which must be directed at the manure for a period of time before the water carries the manure away.<sup>49</sup> The abrupt release of water had the unique effect of lifting the manure and floating it away. A worker was also needed to operate the hose during the cleaning process, whereas the assembly in the ‘070 patent required minimal labor. Also cited by the Supreme Court as prior art was the *Fifth Labour of Hercules*, where the mighty Hercules cleaned the Great Stables of Augeas in a single day by diverting a river through the stables, thereby allowing the abrupt supply of water to cleanse the floor of cow manure.<sup>50</sup>

The Supreme Court invalidated the ‘070 patent as being obvious because each of the elements was found in the prior art with no change in functionality.<sup>51</sup> The bucket stored and released water, and the water picked up and swept away the cow manure from the barn floor as it had in the myth of the *Fifth Labour of Hercules*. There was no new element or new function. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

#### ***KSR International Co. v. Teleflex, Inc.***<sup>52</sup>

US Patent No. 6,237,565, issued to Steven Engelgau on May 29, 2001 discloses an adjustable pedal assembly for use in automobiles having an electronic sensor located at a fixed pivot point.<sup>53</sup> The pedals could move forward and backward, but the positioning of that pivot point, and thus that of the sensor,

<sup>43</sup> *Id.*

<sup>44</sup> *Sakraida v. AgPro, Inc.*, 189 U.S.P.Q. 449, 425 U.S. 273 (1976).

<sup>45</sup> *Id.* at 449-50, 425 U.S. 273-74.

<sup>46</sup> *Id.* at 453, 425 U.S. 277.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 451-52, 425 U.S. 275-76.

<sup>49</sup> *Id.* at 451, 425 U.S. 281.

<sup>50</sup> *Id.* at 450 n.1, 425 U.S. at 277 n.4.

<sup>51</sup> See *Id.* at 453, 425 U.S. at 282.

<sup>52</sup> *KSR*, 82 U.S.P.Q.2d 1385.

<sup>53</sup> *Id.* at 1391.

remained constant, which is desirable because it prevents wear on the wires attached to the sensor. The prior art included US Patent No. 5,010,782, issued to Asano et al., which included adjustable pedal assembly having a fixed pivot point and US Patent No. 5,063,811, issued to Smith et al., which included a fixed pedal assembly having a sensor located at the pivot point.<sup>54</sup>

Teleflex, the assignee to the '565 patent argued that the patent was enforceable because there was no piece of prior art suggesting the combination of the sensor located at the pivot point as shown in Smith with the adjustable pedal assembly having a fixed pivot point, as shown in Asano. However, the Supreme Court held that a suggestion was not required, the patent claim was obvious because one skilled in the art has the ability (common sense) to select elements from the prior art and combine them in a way in which each element functions as it had in the prior art.<sup>55</sup> There was no new element or new function as the Court interpreted the claim in KSR. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

In rejecting the TSM test as the only test for obviousness, the Court articulated the "Common Sense" selection test.<sup>56</sup> The common sense selection test holds that the mere selection of elements from various prior art references and combining them together with no change in their respective functions is an obvious use of common sense by one skilled in the art, and, therefore, not patentable.

In addition, the Court acknowledged a limit to the common sense selection test and admonished that it cannot be distorted "by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning."<sup>57</sup> Even though the Court did not express a test to fill the gap between "common sense" and "hindsight," the case law supports the presumptive test that a combination including something new or produces a new function or an unpredictable result is presumed not to be obvious absent cogent reasoning that is unequivocally independent of hindsight.

## CAFC Decisions Support the Common Sense Test

### *In Re Adams*<sup>58</sup>

Prior to Adams, it was known to move round cans in a helical path about an axis while spraying liquid water radially onto the cans for cooling of the cans by evaporation of the water.<sup>59</sup>

<sup>54</sup> *Id.* at 1392.

<sup>55</sup> *Id.* at 1399.

<sup>56</sup> The term "common sense" is used five (5) times in the KSR opinion.

<sup>57</sup> KSR, 82 U.S.P.Q.2d at 1397.

<sup>58</sup> *In re Adams*, 148 U.S.P.Q. 742, 356 F.2d 998 (C.C.P.A. 1966).

<sup>59</sup> *Id.* at 743, 356 F.2d at 999.

The new combination invented by Adams and rejected by the USPTO substituted aerated cooling water to produce a spray of foam coolant to cover the entire surface of the cans without splashing.<sup>60</sup> As distinguished from totally liquid water of the prior art, the aerated water cooled the cans 26% more efficiently.<sup>61</sup> A first prior art reference, US Patent No. 2,794,326, issued to S. Mencacci on June 4, 1957 discloses an apparatus for cooling containers by directing a stream of totally liquid water radially onto the containers.<sup>62</sup> The secondary prior art reference, US Patent No. 2,210,846, issued to E. Aghnides on August 6, 1940, and discloses a water aerator to be connected to a faucet to prevent running water from splashing when it hits the user's hands.<sup>63</sup> The secondary reference says nothing about using aerated water for cooling. The USPTO argued that heat transfer is inherent in an aerated spray, making it obvious to substitute an aerated spray for a liquid spray.

Although each of the elements in the combination was found in the prior art references, the use of the aerated water produced a new and unpredicted result, i.e., a 26% increase in cooling efficiency. No references were found that showed aerated water being used for any heat transfer applications. In fact, the '326 patent even taught that the splashing which naturally occurs with totally liquid water was desirable because it increased evaporation of the water, thereby increasing the heat transfer. Judge Rich found that the combination including aerated water produced a new function or unpredictable result and was patentable because the USPTO rejection was absent cogent reasoning unequivocally independent of hindsight. A combination of old elements is patentable if it produces an unpredictable result, e.g., a 26% increase in the cooling efficiency.

### *Ruiz v. A.B. Chance, Inc.*<sup>64</sup>

In *Ruiz*, the claimed invention was a screw anchor with a metal bracket used to stabilize a building foundation.<sup>65</sup> A first prior art reference taught the use of the screw anchor having a concrete haunch.<sup>66</sup> A second reference taught a push pier anchor with a metal bracket.<sup>67</sup> There was no piece of prior art which suggested to combine the first and second prior art references. However, the court invalidated the claim without an express suggestion to combine the elements because each of the elements was known in the art without a change in functionality. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, i.e., a predictable result.

<sup>60</sup> *Id.* at 744, 356 F.2d at 1001.

<sup>61</sup> *Id.* at 744, 356 F.2d at 1000.

<sup>62</sup> *Id.* at 743, 356 F.2d at 999.

<sup>63</sup> *Id.* at 744, 356 F.2d at 1000.

<sup>64</sup> *Ruiz v. A.B. Chance, Inc.*, 69 U.S.P.Q. 1686, 357 F.3d 1270 (Fed. Cir. 2004).

<sup>65</sup> *Id.* at 1687-88, 357 F.3d at 1272-73.

<sup>66</sup> *Id.* at 1688, 357 F.3d at 1273.

<sup>67</sup> *Id.*

## *In Re Kahn*<sup>68</sup>

The patent application in question in *In Re Kahn* was US Patent Application No. 08/773,282, which disclosed a combination of components for reading aloud words from a page of text using directional sound to indicate position on the page.<sup>69</sup> A first prior art reference taught an eye controlled sensor that can read aloud a word from a page of text.<sup>70</sup> A second reference taught the use of phase shifting of sound to create an acoustical image representing a physical location and expressly indicated that it could be used as a reading device.<sup>71</sup> Because of this express statement, the court held that it would have been obvious to combine the references.<sup>72</sup> Although this does represent a "suggestion," the statement in the second reference is more appropriately thought of as an expression of an expected result, making the suggestion an illusion. The proffered invention is therefore a mere selection of old elements, each performing as expected, and without new and unexpected results resulting from the combination. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, *i.e.*, a predictable result.

## *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. and Mattel, Inc.*<sup>73</sup>

The CSS test applies perfectly to one of the first decisions by the CAFC following the *KSR* Supreme Court decision. The patent at issue in *Leapfrog* was US Patent No. 5,813,861, issued to Michael Wood on September 29, 1998.<sup>74</sup> The patent disclosed an electronic child's toy in which the user chooses a letter from a keypad, and the toy will sound out the letter if it correctly matches the card displayed on the toy.<sup>75</sup> The prior art included US Patent No. 3,748,748, issued to Brevan et al., which disclosed an electro-mechanical child's toy which performed substantially the same function as the toy disclosed in the '861 patent.<sup>76</sup> The only thing that separated Wood's '861 patent from Brevan's '748 patent was that Wood's toy was entirely electronic, *i.e.* Wood's toy played sounds which had been recorded onto a piece of flash memory, whereas the '748 patent played sounds from a record located below the keypad.<sup>77</sup> Numerous devices are well known to utilize flash memory and modern electronics to play pre-recorded sounds. Therefore, this combination was properly found to be obvious because each of the elements was found in the prior art with no change in functionality. It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, *i.e.*, a predictable result.

68 *In Re Kahn*, 78 U.S.P.Q.2d 1329, 441 F.3d 977 (Fed. Cir. 2006).

69 *Id.* at 1330, 441 F.3d at 981.

70 *Id.* at 1331, 441 F.3d at 982.

71 *Id.* at 1332, 441 F.3d at 983.

72 See *Id.* at 1337, 441 F.3d at 989.

73 *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 82 U.S.P.Q.2d 1687, 485 F.3d 1157 (Fed. Cir. 2007).

74 *Id.* at 1688, 485 F.3d at 1158.

75 *Id.* at 1689, 485 F.3d at 1158-59.

76 *Id.* at 1690, 485 F.3d at 1161.

77 *Id.* at 1691, 485 F.3d at 1162.

## The CSS Test is in Line with Recent Board of Patent Appeals Decisions

In three recent the Board of Patent Appeals and Interferences decisions, the board relied heavily on *KSR* and further cited: *Graham*, *Sakraida*, *Anderson's Black Rock*, *Kahn*, and *Leapfrog*.

### *Ex Parte Carolyn Ramsey Catan*<sup>78</sup>

The combination in *Catan* was for a consumer electronics device which requires a user to provide bioauthentication information, *e.g.* a fingerprint, before being allowed to make a credit card purchase through the internet.<sup>79</sup> The combination includes a bioauthentication device, *e.g.* fingerprint scanner, coupled to a memory for storing a user's bioauthentication information, a processor, and a communications link.<sup>80</sup> US Patent No. 5,845,260, issued to *Nakano* on December 1, 1998, disclosed all of the elements of the combination except for the bioauthentication device.<sup>81</sup> The device in *Nakano* used a password system to verify the user's identity rather than a more advanced bioauthentication information. US Patent No. 5,721,583, issued to *Harada* on February 24, 1998 disclosed a bioauthentication device coupled to a different consumer electronics device, but performing the function of verifying a user's identity.<sup>82</sup> The board found the combination to be obvious

"[b]ecause *Nakano* teaches every element of the device of claim 5 but for the bioauthentication device element, the sole difference between Appellant's claim 5 and the teachings of *Nakano* is the use of bioauthentication in place of *Nakano*'s password authentication. In that regard, *Harada* shows that it was known in the art at the time of the invention to use a bioauthentication device on a remote control to provide the bioauthentication information."<sup>83</sup>

Similar to the holding in *Leapfrog*, the board found it to be "obvious to update the *Nakano* device with modern authentication components of the *Harada* bioauthentication device and thereby gaining, predictably, the commonly understood benefits of such adaptation."<sup>84</sup> It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, *i.e.*, a predictable result.

### *Ex Parte Mary Smith*<sup>85</sup>

The combination in question in *Mary Smith* was for a pocket insert for a bound book for retaining material that could not

78 *Ex Parte Carolyn Ramsey Catan*, No. 2007-0820, 2007 WL 1934867 (Bd.Pat.App. & Interf. July 3, 2007).

79 *Id.* at \*2.

80 *Id.*

81 *Id.* at \*5.

82 *Id.* at \*6.

83 *Id.* at \*15.

84 *Id.* at \*18.

85 *Ex Parte Mary Smith*, No. 2007-195, 2007 WL 1813761 (Bd. Pat.App. & Interf. June 25, 2007).

be easily bound directly to the book binding, e.g. a diskette or a CD-Rom.<sup>86</sup> The pocket was formed by a continuous two-ply seam and could be improved by adding an insert to create two pockets.<sup>87</sup> US Patent No. 5,540,513, issued to Wyant on July 39, 1996 included all of the elements of the combination except for the continuous two-ply seam and the insert for creating a second pocket.<sup>88</sup> US Patent No. 1,495,953, issued to Dick on May 27, 1924 taught of a similar product which included a continuous two-ply seam.<sup>89</sup> Lastly, US Patent No. 4,965,948, issued to Ruebens on October 30, 1990 included a single pocket which could be improved by adding an insert to form two separate pockets out of the original pocket.<sup>90</sup> The overall issue was “whether it would have been obvious to glue two separate sheets to form a continuous two-ply seam, as taught by Dick, rather than folding one sheet to create a seam along the folded edge, as taught by Wyant, . . . [and] whether it would have been obvious to improve a pocket insert by creating two pockets from a single pocket using an additional line of adhesive” as taught by Ruebens.<sup>91</sup>

The board found the combination to be obvious because “each of the elements of Wyant, Dick, and Ruebens combined by the Examiner performs the same function when combined as it does in the prior art. Thus such a combination would have yielded predictable results.”<sup>92</sup> It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, *i.e.*, a predictable result.

#### ***Ex Parte* Marek Z. Kubin and Raymond G. Goodwin**<sup>93</sup>

The combination in question included a protein molecule and a method of isolating cDNA.<sup>94</sup> The combination resulted in NAIL cDNA, which was useful in defending against various diseases.<sup>95</sup> A single prior art reference disclosing both of the elements in the combination was not found, however, they each were found separately in the prior art. The board relied on *KSR* in finding the combination to be obvious and stated that:

“The ‘problem’ facing those in the art was to isolate NAIL cDNA, and there were a limited number of methodologies available to do so. The skilled artisan would have reason to try these methodologies with the reasonable expectation that at least one would be successful. Thus, isolating NAIL cDNA was ‘the product not of innovation but of ordinary skill and common sense,’ leading us to conclude that NAIL cDNA is not patentable as it would have been obvious to patent isolate it.”<sup>96</sup>

86 *Id.* at \*1.

87 *Id.* at \*3.

88 *Id.* at \*10.

89 *Id.* at \*10-11.

90 *Id.* at \*11.

91 *Id.* at \*9.

92 *Id.* at \*22.

93 *Ex Parte Kubin & Goodwin*, No. 2007-0819, 2007 WL 2070495 (Bd.Pat.App. & Interf. May 31, 2007).

94 *Id.* at \*3.

95 *Id.* at \*2.

96 *Id.* at \*9.

It was a mere use of common sense by one skilled in the art to select and combine known elements with no new function, *i.e.*, a predictable result.

## **Further Application of the Common Sense Selection (CSS) Test**

### **Judge Rich’s Wall of Prior Art Now Includes all of the Internet**

Judge Rich was a primary architect in drafting § 103 in 1952. His opinion in *In Re Winslow*, stated that “the proper way to apply the 103 obviousness test . . . is to first picture the inventor as working in his shop with the prior art references-which he is presumed to know- hanging on the walls around him.”<sup>97</sup> In other words, it is a mere use of common sense by one skilled in the art to select and combine known elements displayed on the wall with no change in function. The elements of the combination produced the predicted results for which they were selected. In *KSR*, the Court states that “modern technology counsels against” nonobviousness just because of a lack of “discussion” in the prior art literature.<sup>98</sup> Modern technology allows a man skilled in the art to search the internet for elements by name or names and by functional terms. Such searching includes technical data bases in addition to searching prior art patents. Because of modern technology, Judge Rich’s wall now includes *all* of the information available by searching the internet. It is a mere matter of common sense for one skilled in the art to search the internet and select and combine known elements with no new function, *i.e.*, to produce predictable results.

### **Software Patents and Method Claims**

The CSS test is also applicable to methods. For example, steps individually known in the prior art that are combined together in a single computer program are not patentable simply because the computer provides the medium for combining and performing the known steps. In many cases, the lack of a computer in the prior art is the very reason that the steps were not previously combined, *i.e.*, there was no computer sophisticated enough to enable the combination of known steps. However, the absence of an express suggestion to combine, particularly for business methods that simply employ appropriate computer, does not require a finding of patentability when it was simply the computer that facilitated the combination in the first place.<sup>99</sup> Rather, the combination of known steps into a computer program is merely a common sense selection inherent in the skill of a computer programmer, *i.e.* the results are predictable. This CSS test standard should satisfy the software industry by eliminating patents with no new subject matter.<sup>100</sup> To combine steps known

97 *In re Winslow*, 365 F.2d 1017, 20 (C.C.P.A. 1966).

98 *KSR*, 82 U.S.P.Q.2d at 1389.

99 See *Dann v. Johnston*, 189 U.S.P.Q. 257, 260-61, 425 U.S. 219, 226-30 (1976) (noting that one of skill in the art would have been able to use banking information and sophisticated data processing methods to arrive at the claimed invention).

100 See, e.g., Brief of Intel Corp. and Micron Technology, Inc.

or desired in the prior art is a mere matter of common sense selection to a skilled computer programmer so long as the steps produce no new function or unpredictable result. On the other hand, it will be presumed patentable if the programmer adds a new step, e.g., some specificity that is new.

## The Presumption Test

The presumption can be reinforced by all of the recognized secondary tests, e.g., (1) the invention's commercial success, (2) a long felt but unresolved need, (3) the failure of others, (4) skepticism by experts, (5) praise by others, (6) teaching away by others, (7) recognition of a problem, (8) copying of the invention by competitors, and (9) discovery of unpredictable results.

It is important that unpredictable results can be patentable even if all of the selected elements are old if the selection of a particular element produces unpredictable results. Thus, another secondary test is the discovery of unpredictable results. In other words, the selection is one of the "discoveries" to which inventors are entitled to an "exclusive right" under the *U. S. Constitution*.<sup>101</sup>

In *Webster Loom*, the Supreme Court reversed the lower court and held the patent valid on the basis that when a combination of admittedly old elements "produce[d] a *new and beneficial* result, never attained before, it is evidence of an invention."<sup>102</sup> Although each of the elements in the combination was found individually in the prior art references, the combination of old elements produced a new and unpredictable result, i.e., a 25% increase in weaving production from 40 to 50 yards per day.

The new combination invented by Adams,<sup>103</sup> and appealed to the CCPA from the USPTO, substituted aerated cooling

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as amici curiae in support of Petitioner at 2, *KSR Int'l v. Teleflex, Inc.*, No. 04-1350 (Aug. 21, 2006) ("Intel and Micron are deeply concerned that the Federal Circuit's ... standard ... has facilitated the proliferation of patents claiming nothing more than the straightforward combination of references already well-known in the relevant art."), and Brief of the Business Software Alliance as amicus curiae in support of Petitioner at 10-11, *KSR Int'l v. Teleflex, Inc.*, No. 04-1350 (Aug. 22, 2006) ("With so many components in each product, opportunities abound to seek patents for a combination of several components, no matter how obvious.")

101 U.S. Const. art. I, § 8, cl. 8.

102 *Loom*, 105 U.S. at 591.

103 *In re Adams*, supra.

water to produce a spray of foam coolant to cover the entire surface of the cans without splashing. As distinguished from totally liquid water of the prior art, the aerated water cooled the cans 26% more efficiently.<sup>104</sup> Judge Rich found that the combination including aerated water produced a new function or unpredictable result and was patentable because the USPTO rejection was absent cogent reasoning unequivocally independent of hindsight.

Accordingly, discovery of unpredictable results is another secondary test that reinforces the presumption.

## SUMMARY

In summary, the tests for obviousness which can be gleaned from *KSR* are:

1. a teaching, suggestion or motivation (TSM) in the prior art can render an invention obvious,
2. the mere selection of elements from various prior art references and combining them together *with no new function or unpredictable result* is an obvious use of common sense by one skilled in the art, and, therefore, not patentable, and
3. a combination that includes something new or produces a new function or unpredictable result is presumed patentable absent cogent reasoning that is unequivocally independent of hindsight.

These standards are certainly safe harbors for patent practitioners and the USPTO, albeit they may not be exclusive.

In the end, there must be something NEW, either in element or step or new or unpredictable results, in order to be patentable. Otherwise, an inventor must have very cogent reasoning to overcome a rejection based upon a combination of old elements by the USPTO. In a nutshell, the U.S. Supreme Court has said that patents should be granted and enforced only when there is something new and that patents merely covering re-arrangements of old things are not enforceable.

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104 *Id.* at 744, 356 F.2d at 1000.

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