

# *KSR v. TELEFLEX*: HOW “OBVIOUSNESS” HAS CHANGED

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A patent is invalid on obviousness grounds when 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 the subject matter pertains.”<sup>1</sup> In *KSR International Co. v. Teleflex, Inc.*,<sup>2</sup> the United States Supreme Court unanimously held that a court may find a patent invalid as obvious<sup>3</sup> absent a specific finding that some “teaching, suggestion, or motivation” (TSM) existed that would direct an inventor to combine elements of prior art in the same way as the patentee did in the challenged patent.<sup>4</sup> The Court held that the proper inquiry focuses on the objective reach of the claim, not the “particular motivation nor the avowed purpose of the patentee.”<sup>5</sup> Despite past criticism for disregarding Supreme Court jurisprudence relating to the proper test for obviousness,<sup>6</sup> the Federal Circuit seems to have followed the direction provided in *KSR v. Teleflex* in the months after the decision was handed down on April 30, 2007. Indeed, comparing the Federal Circuit’s opinion<sup>7</sup> from which *KSR v. Teleflex* arose with the court’s opinions soon after the Supreme Court’s decision in *KSR v. Teleflex* reveals that the Federal Circuit is in fact applying its “TSM” test much more broadly, making it easier for an infringement defendant to invalidate a patent based on obviousness.

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1. 35 U.S.C. §103(a).

2. *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007).

3. *See* 35 U.S.C. § 103(a) (2004).

4. *KSR*, 127 S. Ct. at 1741.

5. *Id.* at 1741, 1742.

6. Brief for Petitioner at 30, *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007) (No. 04-1350), 2006 WL 2515631 (“commentators describe the Federal Circuit as having ‘neatly abolished,’ ‘ignored,’ and ‘dismiss[ed]’ Supreme Court precedent”).

7. *Teleflex, Inc. v. KSR Int’l Co.*, 119 F. App’x 282 (Fed. Cir. 2007).

## I. Background of the Case

*KSR International Co. v. Teleflex, Inc.*<sup>8</sup> began in the United States District Court for the Eastern District of Michigan as a patent infringement suit between two automobile-parts manufacturers.<sup>9</sup> At the time of the original suit, Teleflex was the exclusive licensee of the “Engelgau” patent,<sup>10</sup> which disclosed a particular type of adjustable pedal assembly used in automobiles.<sup>11</sup> Because the key issue in this case was whether the Engelgau patent represented an obvious combination of prior art, a brief discussion of prior art in the field is necessary.

### A. *The Prior Art*

In its most basic form, the gas pedal of an automobile can be depressed or released to control the rate at which gasoline and air enter the engine, but its resting location in the footwell cannot be adjusted.<sup>12</sup> This limitation created problems for small drivers who owned cars with deep footwells.<sup>13</sup> In the 1970s, inventors began to develop pedal assemblies with pedals that could be adjusted within the footwell.<sup>14</sup> Two such designs are important in this case. The “Asano” patent<sup>15</sup> discloses “a support structure that houses the pedal so that even when the pedal location is adjusted relative to the driver, one of the pedal’s pivot points stays fixed.”<sup>16</sup> The Asano pedal assembly also is designed so that no matter where the pedal sits within the footwell, the force required to depress it remains constant.<sup>17</sup> The “Redding” patent<sup>18</sup> discloses an adjustable pedal assembly in which the pedals *and* their pivot points move when the driver adjusts the pedal position within the footwell.<sup>19</sup>

The gas pedal of an automobile—whether adjustable or not—can interact with the throttle in one of two ways: either by a mechanical

8. *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007).

9. *Teleflex, Inc. v. KSR Int’l Co.*, 298 F. Supp. 2d 581 (E.D. Mich. 2003).

10. U.S. Patent No. 6,109,241 (filed January 26, 1999).

11. *KSR*, 127 S. Ct. at 1727, 1737.

12. *Id.* at 1735.

13. *Id.*

14. *Id.*

15. U.S. Patent No. 5,010,782 (filed July 28, 1999).

16. *KSR*, 127 S. Ct. at 1735.

17. *Id.*

18. U.S. Patent No. 5,460,061 (filed Sept. 17, 1993).

19. *KSR*, 127 S. Ct. at 1735.

link such as a cable or by a computer that detects the gas pedal’s position and transmits that data to the throttle.<sup>20</sup> In the 1990s, more cars were being equipped with computer-controlled throttles, and it became necessary to design compatible pedal assemblies.<sup>21</sup> Several pedal-assembly designs were patented in the early 1990s that integrated electronic sensors to detect the pedal’s position and transmit the data to a computer-controlled throttle.<sup>22</sup> For example, U.S. Patent No. 5,241,936 (the ’936 patent)<sup>23</sup> revealed an assembly with an electronic position sensor located in the pedal assembly itself, rather than in the engine.<sup>24</sup> Another patent—the “Smith” patent<sup>25</sup>—taught that the electronic sensor should be mounted in a fixed location, rather than in the footpad, to prevent the wires connecting it to the engine from damage caused by the driver’s foot and chafing because of movement.<sup>26</sup> Additionally, U.S. Patent No. 5,385,068 (the ’068 patent)<sup>27</sup> provided an entirely different solution to the electronic-sensor problem. The ’068 patent revealed a self-contained “modular” electronic sensor that could be taken off the shelf and attached to a mechanical pedal assembly, making that assembly compatible with a computer-controlled throttle.<sup>28</sup>

Not surprisingly, by 1995 at least one patent existed that integrated electronic position sensors and an adjustable pedal assembly. The “Rixon” patent<sup>29</sup> revealed an adjustable pedal assembly with an electronic sensor mounted in the footpad of each pedal.<sup>30</sup> The wires connecting the electronic sensors to the computer-controlled throttle in this design, however, were known to chafe as a result of the pedal arm’s constant movement.<sup>31</sup>

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20. *Id.*

21. *Id.*

22. *Id.*

23. U.S. Patent No. 5,241,936 (filed Sept. 9, 1991).

24. *KSR*, 127 S. Ct. at 1735.

25. U.S. Patent No. 5,063,811 (filed July 9, 1990).

26. *KSR*, 127 S. Ct. at 1736.

27. U.S. Patent No. 5,385,068 (filed Dec. 18, 1992).

28. *KSR*, 127 S. Ct. at 1736.

29. U.S. Patent No. 5,819,593 (filed Aug. 17, 1995)

30. *KSR*, 127 S. Ct. at 1736.

31. *Id.*

### B. *The Engelgau Patent*<sup>32</sup>

Teleflex held the exclusive license to the Engelgau patent at the time this action was commenced.<sup>33</sup> Claim four of the Engelgau patent disclosed “a position-adjustable pedal assembly with an electronic pedal position sensor attached to the support member of the pedal assembly,” which “allows the sensor to remain in a fixed position while the driver adjusts the pedal.”<sup>34</sup> The specification of the Engelgau patent reveals that it was intended to be a “simplified vehicle control pedal assembly that is less expensive, and which uses fewer parts and is easier to package within the vehicle.”<sup>35</sup>

### C. *The Controversy*

KSR was hired by General Motors Corporation (GMC) in 2000 to “supply adjustable pedal systems for Chevrolet and GMC light trucks that used engines with computer-controlled throttles.”<sup>36</sup> To meet GMC’s needs, KSR simply added a modular electronic sensor to an adjustable pedal assembly that it previously had been supplying to Ford for use in automobiles with mechanical throttles.<sup>37</sup> Teleflex notified KSR that it believed “‘any supplier of a product that combines an adjustable pedal with an electronic throttle control necessarily employs technology covered by one or more’ of Teleflex’s patents.”<sup>38</sup> After KSR refused to enter into a royalty agreement with Teleflex, Teleflex sued for infringement of the Engelgau patent.<sup>39</sup> KSR moved for summary judgment, asserting that the Engelgau patent was invalid because “it would have been obvious to someone with ordinary skill in the art of designing pedal systems to combine an adjustable pedal system with an electronic pedal position sensor to work with electronically controlled engines increasingly being used in motor vehicles.”<sup>40</sup>

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32. U.S. Patent No. 6,109,241 (filed January 26, 1999).

33. *KSR*, 127 S. Ct. at 1737.

34. *Id.*

35. *Id.*

36. *Id.* at 1737.

37. *Id.*

38. *Id.* (quoting *Teleflex v. KSR*, 298 F. Supp. 2d 581, 585 (E.D. Mich. 2003)).

39. *Id.*

40. *Teleflex v. KSR*, 298 F. Supp. 2d at 585.

## II. THE DISTRICT COURT’S DECISION

The district court granted summary judgment in favor of KSR.<sup>41</sup> The court began its analysis with the four-part inquiry first articulated in *Graham v. John Deere Co. of Kansas City*,<sup>42</sup> which states that whether an invention is obvious is a question of law based on an examination of “(1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) the extent of any objective indicia of non-obviousness.”<sup>43</sup>

The district court found that the Asano patent revealed relevant prior art and that it taught each of the limitations in claim four of the Engelgau patent except “those relating to an electronic pedal position sensor.”<sup>44</sup> The court also noted that prior art such as the ’068 patent disclosed electronic position sensors, similar to the one used in claim four of the Engelgau patent.<sup>45</sup> All parties agreed that a person having ordinary skill in the art would have an undergraduate mechanical engineering degree, or the equivalent amount of industry experience, and familiarity with various types of pedal control systems.<sup>46</sup>

The district court observed that:

[t]he fact that Asano and the modular pedal position sensors teach the invention disclosed in claim 4 does not render their combination obvious, however, unless there is ‘some motivation or suggestion to combine the prior art teachings,’ either in the prior art itself, or by reasonable inference from the nature of the problem, or from the knowledge of those of ordinary skill in the art.<sup>47</sup>

The district court found such a “suggestion” in the Rixon patent. The pedal assembly disclosed by the Rixon patent included an

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41. *Id.*

42. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

43. *Teleflex v. KSR*, 298 F. Supp. 2d at 587.

44. *Id.* at 592.

45. *Id.*

46. *Id.* at 590.

47. *Id.* at 593 (citing *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999); *Yamanouchi Pharm. Co., Ltd. v. Danbury Pharmacal, Inc.*, 231 F.3d 1339, 1343 (Fed. Cir. 2000) (finding that “the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness”); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984) (determining that “[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination”)).

electronic position sensor mounted in the pedal arm, and the frequent motion of the pedal arm was known to cause chafing of the wires that connected the electronic sensor to the internal computer.<sup>48</sup> The district court concluded that it would have been obvious to a person having ordinary skill in the art to mount the modular electronic position sensor disclosed in '068 on the *fixed* pivot section of the Asano pedal assembly in order to avoid the chafing problems associated with the Rixon design.<sup>49</sup> Based on this conclusion, the district court granted summary judgment in favor of KSR, and Teleflex appealed to the Federal Circuit.<sup>50</sup>

### III. THE FEDERAL CIRCUIT'S DECISION ON APPEAL

The Federal Circuit vacated the district court's grant of summary judgment.<sup>51</sup> The court observed that "the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is *rigorous application of the requirement* for a showing of the teaching or motivation to combine prior art references."<sup>52</sup> Proceeding on this premise, the court held that the district court erred because it had "applied an incomplete teaching-suggestion-motivation test."<sup>53</sup> More specifically, the court held that the district court had not articulated "finding[s] as to the specific understanding or principle within the knowledge of a skilled artisan" that would have led someone to combine the teachings of '068 and Asano in the way that Engelgau had.<sup>54</sup>

The Federal Circuit further held that the suggestion or motivation was not implied by the nature of the prior art in this case, as the district court had found it was, because the prior art that the Engelgau patent combined was not designed to address the same problem.<sup>55</sup> Specifically, the purpose of the Engelgau patent "was to design a smaller, less complex, and less expensive electronic pedal assembly."<sup>56</sup> The Asano patent, in contrast, was designed to address the constant-

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48. *Id.* at 594.

49. *Id.*

50. *Teleflex v. KSR*, 119 F. App'x 282, 283 (Fed. Cir. 2007).

51. *Id.*

52. *Id.* (emphasis added).

53. *Id.* at 288.

54. *Id.*

55. *Id.*

56. *Id.*

ratio problem,<sup>57</sup> and the Rixon patent was not designed to address the problem of wire chafing, but rather suffered from it.<sup>58</sup> The court held that although the Smith patent taught that the wires attached to the electronic position sensor must not move with the pedal, this “does not necessarily go to the issue of motivation to attach the electronic control on the support bracket of the pedal assembly,” and in any case, “the Smith patent does not relate to adjustable pedal assemblies.”<sup>59</sup>

Finally, the Federal Circuit held that an invention cannot be proven obvious merely by showing that the particular combination of prior art embodied by the invention might have been “obvious to try.”<sup>60</sup> Rather, the court held, a finding of obviousness must be supported by a specific finding that an inventor with no knowledge of the invention in question would have been motivated to combine the prior art in exactly the same manner as the invention.<sup>61</sup>

In sum, the Federal Circuit affirmed its long-standing, self-created TSM standard, which, in its view, “*requires* a court to make specific findings showing a teaching, suggestion, or motivation to combine prior art teachings in the particular manner claimed.”<sup>62</sup> The Supreme Court granted certiorari<sup>63</sup> to address the question “whether the Federal Circuit has erred in holding that a claimed invention cannot be held ‘obvious,’ and thus unpatentable under 35 U.S.C. § 103(a) in the absence of some proven ‘teaching, suggestion, or motivation’ that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed.”<sup>64</sup>

#### IV. THE SUPREME COURT’S DECISION

On review, the Supreme Court reversed the decision of the Federal Circuit, holding that by applying the TSM test in such a strict

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57. The constant-ratio problem refers to the problem of designing a pedal assembly such that the force necessary to depress each pedal remains constant regardless of the pedal’s resting position within the footwell. *Teleflex v. KSR*, 119 F. App’x at 288.

58. *Id.*

59. *Id.* at 288–89.

60. *Id.* at 290 (“‘Obvious to try’ has long been held not to constitute obviousness.”) (quoting *In re Deuel*, 51 F.3d 1552, 1559 (Fed. Cir. 1995)).

61. *Id.* at 289.

62. *Id.* at 290 (emphasis added).

63. Petition for Writ of Certiorari, *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007) (No. 04-1350), 2005 WL 835463.

64. *Id.*

manner, the Federal Circuit had “analyzed the issue in a narrow, rigid manner inconsistent with [35 U.S.C.] § 103 and our precedents.”<sup>65</sup> The Court pointed out three errors of law made by the Federal Circuit, and articulated the correct standard for each.<sup>66</sup>

First, the Court concluded that a patent can be invalid for obviousness if “there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.”<sup>67</sup> The Federal Circuit erred by limiting this inquiry “only to the problem the patentee was trying to solve.”<sup>68</sup> The correct standard, the Court held, is that a patent may be obvious if its subject matter represents the obvious solution to *any* problem known within the field, regardless of whether it was the problem the patentee was aiming to solve.<sup>69</sup> In this case, although the Engelgau patent was aimed at providing a simpler, less expensive pedal assembly,<sup>70</sup> it nonetheless represented the obvious solution to a well-known problem: integrating an electronic position sensor and an adjustable pedal assembly in such a way as to avoid wire chafing problems.<sup>71</sup>

Second, the Federal Circuit erred in concluding that an inventor aiming to solve a problem “will be led only to those elements of prior art designed to solve the same problem.”<sup>72</sup> This holding repudiated the Federal Circuit’s conclusion that the requisite “teaching, suggestion, or motivation” could not be implied by the nature of the problem in this case because the prior art was designed to address different problems than Engelgau.<sup>73</sup> The fact that Asano was designed to solve the constant-ratio problem, the Court said, had little relevance because another of its key features was a fixed pivot point—precisely where other prior art such as the Smith and Rixon patents had taught was an ideal mount for an electronic position sensor.<sup>74</sup> The Court observed that “[t]he idea that a designer hoping to make an adjustable electronic pedal would ignore Asano because Asano was designed to solve the constant ratio problem makes little sense. A

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65. *KSR*, 127 S. Ct. at 1746.

66. *Id.* at 1742.

67. *Id.*

68. *Id.*

69. *Id.*

70. *Id.* at 1736.

71. *Id.* at 1744–45.

72. *Id.* at 1742.

73. *Teleflex v. KSR*, 119 F. App’x 282, 288 (Fed. Cir. 2007).

74. *KSR*, 127 S. Ct. at 1742.



person of ordinary skill is also a person of ordinary creativity, not an automaton.”<sup>75</sup>

Finally, the Federal Circuit erred in concluding that proof that a particular combination would have been “obvious to try” is never sufficient to establish obviousness.<sup>76</sup> To the contrary, the Court noted that in an industry faced with a problem for which there are “a finite number of identified, predictable solutions,” a person attempting to solve that problem will likely first try “the known options within his or her technical grasp.”<sup>77</sup> If a solution is found this way, the Court observed, “it is likely the product not of innovation but of ordinary skill and common sense,” and thus may be found obvious despite merely being “obvious to try.”<sup>78</sup>

This three-pronged repudiation of the Federal Circuit’s strict application of the TSM test certainly appeared to be a turning point for the concept of obviousness.<sup>79</sup> However, the Federal Circuit has a history of disregarding Supreme Court jurisprudence in this area.<sup>80</sup> Thus, immediately following the Court’s opinion there was uncertainty regarding whether and how the Federal Circuit would follow it.

## V. THE FEDERAL CIRCUIT SINCE *KSR V. TELEFLEX*

In the first five months after the decision, it became clear that the Federal Circuit had indeed changed its approach to the obviousness inquiry. As one expert noted, “[t]he KSR Supreme Court decision has completely revamped the Federal Circuit’s thinking on nonobviousness.”<sup>81</sup> Another expert predicted that the decision would affect the types of patents that are challenged and the outcome of those challenges, especially in the pharmaceutical industry:

I believe that you will see generic pharmaceutical companies be more aggressive in challenging the validity of patents owned by

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75. *Id.*

76. *Id.*

77. *Id.*

78. *Id.*

79. See Commentary of Michael Barclay, Wilson Sonsini Goodrich & Rosati, as posted by Gretchen Sund to SCOTUSblog.com, <http://www.scotusblog.com/wp/some-thoughts-about-ksr-v-teleflex-the-marketplace-test-for-obviousness> (Apr. 30, 2007) (“This decision makes it far easier to invalidate patents based on obviousness.”).

80. See *supra* note 6.

81. E-mail from Maxim H. Waldbaum, Partner, Schiff Hardin LLP, to Daniel W.J. Becker (Sept. 17, 2007, 14:51 EST) (on file with author).

brand pharmaceutical companies, especially those patents relating to extended-release formulations or certain methods of use. With many extended-release formulations, there is typically a finite number of ways to achieve the extended-release of the active ingredient, and there is almost always market pressure to develop a drug formulation that can be taken once or twice a day, as opposed to every few hours. Under those circumstances, it would likely be obvious to try the known methods to achieve extended-release, and the results would often be predictable. When that is the case, *KSR* would suggest that a patent on the extended-release formulation would be invalid for obviousness.<sup>82</sup>

Indeed, roughly ten days after the Supreme Court handed down *KSR v. Teleflex*, the Federal Circuit held that a patent owned by Leapfrog Enterprises, Inc. (“Leapfrog”), a manufacturer of children’s toys, was invalid as obvious.<sup>83</sup> Leapfrog owned a patent (the ’861 patent)<sup>84</sup> for an electronic learning device whereby a child could press a button or switch associated with a letter, and the speakers within the device would emit the sound associated with that letter.<sup>85</sup> Leapfrog sued Fisher-Price, Inc., alleging that their “PowerTouch” device infringed the ’861 patent.<sup>86</sup> The Federal Circuit upheld the decision of the district court, finding that Leapfrog’s patent was invalid as obvious because it simply took one element of prior art—a mechanical version of the device<sup>87</sup>—and upgraded it with modern electronics, which the court found to be “commonly available and understood in the art.”<sup>88</sup>

Not once in the opinion did the Federal Circuit revert to its recently-repudiated TSM test.<sup>89</sup> Rather, the court sang a decidedly different tune when addressing the issue of obviousness: “An obviousness determination is *not the result of a rigid formula* dissociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some

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82. E-mail from Chad A. Landmon, Partner, Axinn, Veltrop & Harkrider, LLP, to Daniel W.J. Becker (Sept. 27, 2007, 17:07 EST) (on file with author).

83. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed Cir. 2007).

84. U.S. Patent No. 5,813,861 (filed June 20, 1997).

85. *Leapfrog*, 485 F.3d at 1158.

86. *Id.*

87. U.S. Patent No. 3,748,748 (filed Dec. 1, 1971) (the “Bevan” device).

88. *Leapfrog*, 485 F.3d at 1162.

89. *See generally Leapfrog*, 485 F.3d 1157.

combinations would have been obvious where others would not.”<sup>90</sup> The Federal Circuit applied the approach outlined in *KSR* in at least eight other cases between May 2007 and October 2007.<sup>91</sup>

## VI. CONCLUSION

It appears clear that *KSR v. Teleflex* represents a dramatic change in the concept of obviousness, although the magnitude of this change, in large part, remains to be seen. One expert has predicted that many changes will occur within the Patent and Trademark Office, with more patents being denied on initial examination or invalidated upon reexamination.<sup>92</sup> Whether this prophecy will prove accurate in the long run, however, is not immediately clear. Perhaps the practical impact of *KSR v. Teleflex* is best described by another expert, who stated that “a patentee can no longer count on the Federal Circuit for any support on both issues of validity and infringement . . . [W]e are back to 1982, with the stakes much higher and the nonuniformity, fear level, and security factor for all parties embarrassingly undefined.”<sup>93</sup>

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90. *Leapfrog*, 485 F.3d at 1161 (citing *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739 (2007) (emphasis added).

91. See *Aventis Pharma Deutschland GmbH v. Lupin, Ltd.*, 499 F.3d 1293 (Fed. Cir. 2007); *In re ICON Health and Fitness, Inc.*, 496 F.3d 1374 (Fed. Cir. 2007); *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342 (Fed. Cir. 2007); *Omegaflex, Inc. v. Parker-Hannafin Corp.*, 243 F. App'x 592 (Fed. Cir. 2007); *In re Sullivan*, 498 F.3d 1345 (Fed. Cir. 2007); *In re Trans Tex. Holdings Corp.*, 498 F.3d 1290 (Fed. Cir. 2007); *In re Metropolol Succinate Patent Litig.*, 494 F.3d 1011 (Fed. Cir. 2007); *Syngenta Seeds, Inc. v. Monsanto, Co.*, 231 F. App'x. 954 (Fed. Cir. 2007).

92. See Jay Sandvos, Bromberg & Sunstein LLP, *Expert Analysis: How KSR v. Teleflex Should Change Your Patent Strategies*, ELECTRONICS DESIGN, STRATEGY, NEWS, May 16, 2007, <http://www.edn.com/index.asp?layout=article&articleid=CA6442383>.

93. Waldbaum, *supra* note 81.