IT'S YOUR MOVE—NO IT'S NOT! THE APPLICATION OF PATENT LAW TO SPORTS MOVES

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INTRODUCTION

Imagine yourself sitting comfortably in your living room, watching and cheering for your favorite basketball team in the big game. With the game clock winding down, your team's star player gets the ball and drives toward the basket to make the winning shot. He spins left, then right, and then elevates for an amazing 360-degree slam dunk, giving your team a one point lead with time expiring! But wait a minute—a whistle! "Great!" you say to yourself, "Our star player was fouled, and now he will have an opportunity to make a free throw and put this game out of reach." Before you can finish this thought, however, the television commentator announces that the basket does not count and that your team has lost because your star player's dunk violated the patent rights held by an opposing player. Adding insult to injury, as your star player walks off the court he is served with process and now must defend an action for patent infringement damages. You cannot believe your eyes and ask yourself, "Can this be happening? Can a sports move really be patented? Does intellectual property law have any place in professional sports?"

The answer to these questions may be "yes," according to intellectual property attorney Robert M. Kunstadt.[1] In a recent article appearing in the *National Law Journal*, Kunstadt argues that "[t]he possibility of securing exclusive rights in sports 'moves,' [such as] slam dunks, pitching stances, [and] golf swings . . . is real."[2] Because sports has become big business,[3]

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1. Robert Kunstadt is a partner at the New York law firm of Pennie & Edmonds and represents professional sporting associations such as the NBA, the United States Tennis Association, and the United States Olympics Committee in matters involving intellectual property. *See* Robert M. Kunstadt et al., *Are Sports Moves Next in IP Law?*, NAT'L L.J., May 20, 1996, at C2. This comment was inspired by Mr. Kunstadt's original and thought-provoking article.

2. *Id.*

3. Kunstadt notes that "[e]ntire industries exist to sell and promote goods and services at sporting events and for use by sports participants." *Id.*

Kunstadt argues that "big business demands this protection," and that "[p]layers in this vast [sports] market may benefit from the efficiency of fixed property rights."[4] He further suggests that athletes' sports moves are a driving force behind the industry; as such, patent, copyright, and trademark law "may provide the best tools for securing those rights."[5]

The notion of granting patents within the sporting industry is not new.[6] Sporting goods manufacturers commonly obtain patent protection for sporting equipment.[7] Unlike these manufacturers, however, Kunstadt suggests athletes have no remedy for the rampant copying of the moves that provide for their success.[8] In order to correct this imbalance, Kunstadt argues that athletes need to establish that sports moves are no less deserving of patent protection than the equipment used to play the sport.[9]

On its surface, the idea of applying intellectual property law to sports moves may sound ridiculous and impossible. Kunstadt, however, persuasively argues that the "legal tools" necessary to patent or copyright sports moves already exist and that it may be time to put these tools to use.[10] This comment examines the viability of this novel application of intellectual property law. Based on both practical problems associated with patenting sports moves and related public policy concerns, it argues against extending patent law to unique sports moves. Although some sports moves could possibly fit within the ambit of patent protection, patent law is not the proper legal mechanism to ensure an athlete's financial prosperity when more es-

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4. *Id.*

5. *Id.* Although Kunstadt's article suggests that copyrights and trademarks may be appropriate for sports moves, this comment only addresses the application of patent law to sports moves.

6. *See id.* at C3.

7. For example, numerous patents exist on golf balls, ski equipment, and tennis rackets. *See, e.g.*, Patent No. 5,827,167 ("Three-Piece Wound Golf Ball"); Patent No. 5,827,133 ("Reduced Spin Golf Ball"); Patent No. 5,787,611 ("Two-Part Ski Boot"); Patent No. 5,772,540 ("Racket for Tennis or the Like Game"); Patent No. 5,765,299 ("Three-Piece Type Ski Boot"); Patent No. 4,983,242 ("Tennis Racket Having a Sandwich Construction, Vibration-Dampening Frame"). Interestingly enough, Kunstadt holds five patents of his own on sports-related equipment. *See* Mark Walsh, *Patently Ridiculous*, N.J. L.J., Aug. 26, 1996, at 5.

8. *See* Kunstadt et al., *supra* note 1, at C3.

9. *See id.*

10. *Id.* at C2.

tablished means, such as contract law, already provide the same benefits of patent protection.

Part I of this comment outlines the historical development of patent law and its underlying policy. This historical discussion is followed by a brief overview of the patent application process and the rights and responsibilities that attach to a patent. Part II provides a detailed examination of the statutory requirements necessary to establish a valid patent claim. Part II then applies these elements to sports moves and discusses the types of sports moves that would fall within the scope of patent protection. Part III examines practical problems associated with granting patents on sports moves and analyzes the adequacy of protection that intellectual property rights would provide athletes, comparing this to current legal mechanisms for protecting an athlete's financial stake in his or her sport. Part III argues that when accounting for practical issues such as enforcement, ownership, possible league regulation concerning the use of patented moves, together with public policy considerations, the burdens of allowing athletes the use of patent law outweigh the benefits of any extra financial protection that could be achieved by treating sports moves as intellectual property. Finally, Part III concludes by suggesting that traditional legal means such as contract law—if used properly—provide more than adequate protection for athletes whose moves fuel their success.

I. HISTORY OF PATENT LAW

A. Origin of the Patent

The development and widespread use of patents as a means to encourage inventive activity can be traced back to western Europe during the late sixteenth century.[11] During this period, Europe experienced major economic change.[12] Improvements in agricultural and manufacturing technology disrupted the division of labor in the traditional feudal society.[13] As technology advanced, European society began to shift away

11. *See* Paul E. Schaafsma, *An Economic Overview of Patents*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 241, 242 (1997).

12. *See id.* at 242.

13. *See id.*

from its feudal base, and with this transition came a new level of economic thought.[14] Merchants began to exercise their power and "urge policies to encourage economic growth."[15] One such policy was the use of limited grants of exclusivity in an invention.[16]

In England, the privilege of granting exclusive rights in the inventions belonged solely to the Crown.[17] Under the reigns of Queen Elizabeth and King James I, however, this privilege was greatly abused, becoming a tool for rewarding loyal supporters and raising revenue for the Crown rather than for encouraging economic growth.[18] This abuse resulted in both protection of overly broad monopolies and artificial price inflation of many commodities.[19] Public outrage and opposition to the granting of exclusive rights was so strong that Parliament responded in 1623 by enacting the Statute of Monopolies.[20] Although forbidding the Crown from granting monopolies, this statute contained an exception for the grant of exclusive rights for fourteen years upon the introduction of "new manufacture."[21] Thus, the Statute of Monopolies provided a foundation

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14. *See id.*

15. *Id.*

16. *See id.* at 243. In contrast to its sister rights of copyright and trademark, which originated out of a "natural rights" philosophy, patent rights developed solely as a tool for spurring economic development. *See id.* at 242. The earliest examples of the use of exclusive rights to promote invention are found in the guilds of the Italian city-states during the fifteenth century. In 1474, Venice passed a law that granted broad exclusivity to the inventor of a machine or process and provided for the destruction of any infringing device and payment of a fee to the inventor. *See id.* at 243-44.

17. *See id.* at 245.

18. *See id.*; *see also* George Ramsey, *The Historical Background of Patents*, 18 J. PAT. OFF. SOC'Y 6, 7 (1936) (stating that Queen Elizabeth was the greatest offender of this revenue-generating tool and that "during her Reign patents were granted that were monopolistic in character and covered most of the necessities of life").

19. *See* Schaafsma, *supra* note 11, at 245.

20. 21 Jam. 1, ch. 3 (1623) (Eng.).

21. Ramsey, *supra* note 18, at 8; Schaafsma, *supra* note 11, at 245. Although the Statute of Monopolies is considered the first broad expression of patent protection in English law, four hundred years before its passage, the Magna Carta contained a paragraph that stated:

> The merchants, *if they were not openly prohibited before*, shall have their safe conduct to depart out of England, to tarry in and go in and through England, as well by land as by water, to buy and sell without in any manner of evil tolls by the old and rightful Commoners, except in time of war.

MAGNA CARTA, ¶ 41 (1215), *quoted in* Ramsey, *supra* note 18, at 8 (emphasis

for protecting inventions through patent, and it is viewed as the primary source from which modern patent law stems.[22]

B. The United States Patent System

1. Development of American Patent Law

The successful development of the English patent system helped inspire the roots of American patents.[23] Like the early use of patent grants in England, the use in colonial America focused on the encouragement of importation of useful arts into the colonies and the promotion of economic development by granting exclusive rights to inventors.[24] Prior to the adoption of the Constitution or the passage of applicable federal statutes, individual states retained the right to grant patents.[25] Both Congress and the courts recognized these rights, but any grant by an individual state was limited to the territory of that state.[26] Consequently, state patent rights carried very little value.[27] Further, once patents came under the scope of federal law,[28] owners of state-granted patents saw their rights de-

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added). This clause was generally interpreted to mean that if the trade in a particular article had not been prohibited previously by a royal patent before the trade was established in England, then once the trade became established, it could not be monopolized lawfully. *See* Ramsey, *supra* note 18, at 9. Thus, this clause was seen as a clear attempt to limit the Monarch's power in granting monopolistic patents. *See id.* at 9. *See generally* 1 ERNEST BAINBRIDGE LIPSCOMB III, LIPSCOMB'S WALKER ON PATENTS §§ 1:4-5 (3d ed. 1984).

22. *See* Ramsey, *supra* note 18, at 8.

23. *See id.* at 6. In 1641, the General Court of Massachusetts Bay issued the first American patent to Samuel Winslow for the "method of making salt and the patent included a prohibition against others 'from making this article except in a manner different from his.'" *Id.* at 12.

24. *See* Schaafsma, *supra* note 11, at 245-46.

25. *See* 1 LIPSCOMB, *supra* note 21, § 1:7.

26. *See id.* Section 7 of the 1793 Patent Act expressly recognized these state granted patents by providing:

> That where any state, before its adoption of the present form of government, shall have granted an exclusive right to any invention, the party, claiming that right, shall not be capable of obtaining an exclusive right under this act, but on relinquishing his right under such particular state, and of such relinquishment, his obtaining an exclusive right under this act shall be sufficient evidence.

Act of Feb. 21, 1793, ch. 11 § 7, 1 Stat. 318, 322 (superseded by Act of July 19, 1952, ch. 950, 66 Stat. 792).

27. *See* 1 LIPSCOMB, *supra* note 21, § 1:7.

28. *See infra* notes 30-32 and accompanying text.

crease substantially as these patents were challenged as unconstitutional.[29]

The foundation of the modern American patent system is rooted in the United States Constitution,[30] which provides that "Congress shall have [the] Power . . . [t]o promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries."[31] In response to this constitutional grant of authority, Congress quickly passed the Patent Act of 1790 ("Patent Act" or "Patent Code").[32] These two sources, together with interpretative case law,[33] form the framework of the United States patent system.

Despite constitutional support for the patent system, there was some initial reluctance to the idea of allowing the federal government to grant exclusive rights in inventions.[34] Although currently thought of as an enthusiastic supporter of the patent system and the "moving spirit of the [first patent] Board,"[35] Thomas Jefferson initially opposed the grant of patents because of the resulting monopoly in the grantee.[36] Jefferson, like other Americans, abhorred monopolies and argued forcefully that "the benefit even of limited monopolies is too doubtful to

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29. *See, e.g.*, Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1 (1824). However, the case was ultimately decided under the Commerce Clause with Chief Justice Marshall stating "it is unnecessary to enter in an examination of that part of the constitution [sic] which empowers Congress to promote the progress of science and the useful arts." *Id.* at 221.

30. *See* U.S. CONST. art. I, § 8, cl. 8.

31. *Id.*

32. Act of Apr. 10, 1790, ch. 7, 1 Stat. 109 (codified as amended at 35 U.S.C. §§ 1-376 (1994 & Supp. II 1996)). A mere three months later, on July 31, 1790, Samuel Hopkins received the first patent under the federal Patent Act for "Making Pot and Pearl Ashes." *See* P.J. Federico, *Operation of the Patent Act of 1790*, 18 J. PAT. OFF. SOC'Y 237, 244-45 (1936).

33. Patent actions can come before the court in two ways. The inventor may appeal the denial of a patent application, *see* 35 U.S.C. § 141 (1994), or a patentee may bring an action for infringement. *See* 35 U.S.C. § 271 (1994 & Supp. II 1996). For a complete discussion of federal jurisdiction over patents, including the development of the exclusive appellate jurisdiction of the Federal Circuit, see ROBERT L. HARMON, PATENTS AND THE FEDERAL CIRCUIT 299-356 (1988).

34. *See* Federico, *supra* note 32, at 239-40.

35. *Id.* at 238. In addition to his role as the first administrator of the patent system, Jefferson authored the 1793 Patent Act and was a noted inventor. *See id.* at 239. Jefferson's invention of the correct form for the mold board for a plow won acclaim in the United States and abroad. *See id.* Jefferson even received several medals for this invention from French scientific societies. *See id.*

36. *See id.* at 239.

be opposed to that of their general suppression."[37] He believed that the federal government should not interfere in matters of invention.[38]

After some reflection and study of the Constitution, however, Jefferson reversed his position and favored granting limited monopolies for inventions.[39] In an effort to encourage invention, Jefferson suggested adding a provision to the recently drafted Bill of Rights that would recognize expressly an inventor's right to monopolize his invention for a limited period of time.[40] Also, Jefferson would later opine that "an inventor ought to be allowed a right to the benefit of his invention for some certain time. . . . Nobody wishes more than I do that ingenuity should receive a liberal encouragement."[41]

Although Jefferson changed his viewpoint to support the use of patents, he felt that a patent monopoly should not be granted for "small details, obvious improvements, or frivolous devices; he was a believer in a high standard of invention."[42] As a member of the first patent board, Jefferson helped shape

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37. Letter from Thomas Jefferson to James Madison (July 31, 1788), *in* 5 THE WORKS OF THOMAS JEFFERSON, at 428 (Paul Leicester Ford ed., Knickerbocker Press 1904), *quoted in* Federico, *supra* note 32, at 240.

38. At the time the Constitution was proposed, Jefferson expressed a dissatisfaction with the absence of a bill of rights. In his opinion, a bill of rights was necessary and it should provide "clearly [and] without the aid of sophisms for . . . restriction against monopolies." Letter from Thomas Jefferson to James Madison (Dec. 20, 1787), *in* 5 THE WORKS OF THOMAS JEFFERSON, *supra* note 37, at 371, *quoted in* Federico, *supra* note 32, at 240.

39. While ultimately supportive of the patent system, Jefferson felt that the term of a patent grant should be limited because a perpetual monopoly would "embarrass society for every utensil existing, and in all details of life." Letter from Thomas Jefferson to Oliver Evans (May 2, 1807), *in* 5 THE WRITINGS OF THOMAS JEFFERSON, at 75 (H.A. Washington ed., New York, Riker, Thorne & Co. 1854), *quoted in* Federico, *supra* note 32, at 241.

40. Jefferson's proposed provision stated that "[m]onopolies may be allowed to persons for their own productions in literature [and] their own inventions in the arts, for a term not exceeding — years but for no longer term [and] for no other purpose." Letter from Thomas Jefferson to James Madison (Aug. 28, 1789), *in* 5 THE WORKS OF THOMAS JEFFERSON, *supra* note 37, at 493, *quoted in* Federico, *supra* note 32, at 240.

41. Letter from Thomas Jefferson to Oliver Evans (May 2, 1807), *in* 5 THE WRITINGS OF THOMAS JEFFERSON, *supra* note 39, at 75-76, *quoted in* Federico, *supra* note 32, at 240.

42. Federico, *supra* note 32, at 241. Jefferson also believed that there is no natural property right in an invention; rather such rights are the "creation of society." *Id.* at 241. The patent monopoly was designed as a reward to bring forth new knowledge. It "was not designed to secure to the inventor his natural right" in the discovery. Graham v. John Deere Co., 383 U.S. 1, 9 (1966).

the underlying policy of the patent system.[43] He called for standards that would allow for a patent only when "the things which are worth to the public the embarrassment of an exclusive patent"[44] outweigh the restrictive effects of the limited patent monopoly. "Only inventions and discoveries which furthered human knowledge, and were new and useful, justified the special inducement of a limited private monopoly."[45] Modern patent law still adheres to these patentability standards.[46]

2. Modern Patenting Procedure

Under current law, patent protection is afforded only to inventions that conform to specific statutory requirements set forth in the Patent Act.[47] An inventor who desires to patent his or her invention must demonstrate that the invention falls within the appropriate subject matter of the Patent Act.[48] In addition, the invention must be novel,[49] nonobvious,[50] and useful.[51] Furthermore, the potential patentee must follow certain procedural rules prescribed by the Patent Act and the United States Patent Office.[52]

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43. *See* Federico, *supra* note 32, at 241-44. During Jefferson's time, the patent board consisted of three members: the Secretary of State, the Secretary of War, and the Attorney General. The three-member board would meet from time to time to discuss pending patent applications and develop rules and regulations governing both the form and substance of patent applications. *See id.* at 238, 242.

44. Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), *in* 6 THE WRITINGS OF THOMAS JEFFERSON, *supra* note 39, at 180, *quoted in* Federico, *supra* note 32, at 242.

45. *Graham*, 383 U.S. at 9.

46.. In *Graham*, the Supreme Court noted that "[a]lthough the Patent Act was amended or revised some 50 times between 1790 and 1950, Congress has steered clear of a statutory set of requirements other than the bare novelty and utility tests reformulated in Jefferson's draft of the 1793 Patent Act." *Id.* at 10.

47. *See* 35 U.S.C. §§ 101-103 (1994 & Supp. II 1996). For an analysis of how these requirements are applied to sports moves, see *infra* Part II.B.

48. *See* 35 U.S.C. § 101.

49. *See id.* § 102.

50. *See id.* § 103.

51. *See id.* § 101.

52. *See* 35 U.S.C. §§ 111-115 (1994). Section 111 provides that the inventor shall make the application for patent "in writing to the Commissioner," and in addition to a required filing fee, the application includes a specification, drawing, and oath. *Id.* § 111(a). The procedures followed by the Patent Office and its examiners in reviewing patent applications are set out in the MANUAL OF PATENT EXAMINING PROCEDURE (7th ed. 1998). For a detailed explanation of the patent application and approval process, see 4 DONALD S. CHISUM, CHISUM ON PATENTS § 11 (1996).

In order to receive a patent, a potential patentee must first file an application, and upon filing, the Patent Office assigns each patent application to a Patent Office examiner who determines whether the application complies with the conditions of patentability and other formal requirements.[53] One of the main responsibilities of the examiner is to conduct a search of previously patented inventions to determine the novelty and nonobviousness of the claimed invention.[54] After completing the search, the patent examiner has the option of granting or denying the application.[55] If the patent examiner denies the application, the inventor may, within certain limits, amend the application and resubmit it for approval.[56] The inventor also may appeal the denial within the Patent Office.[57] As a last resort, the aggrieved patentee may seek relief from a Patent Office ruling in federal court.[58]

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53. *See supra* note 52; 35 U.S.C. §§ 131-134 (1994).

54. *See* 37 C.F.R. § 1.104(a)(1) (1998). This regulation provides:

> On taking up an application for examination or a patent in a reexamination proceeding, the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect both to compliance of the application or patent under reexamination with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated.

Id.; *see also* MANUAL OF PATENT EXAMINING PROCEDURE, *supra* note 52, § 704. Generally, "the relevancy of prior art to a patent examination proceeding is described as anything in tangible form that may properly be relied upon 'in support of a rejection on a matter of substance, not form, of a claim in a pending application for patent.'" Lee Pharms. v. Kreps, 577 F.2d 610, 613 (9th Cir. 1978) (quoting 5 ANTHONY WILLIAM DELLER, DELLER'S WALKER ON PATENTS § 453, at 361 (2d ed. 1972)).

55. *See* 35 U.S.C. § 131 (providing that "if on such examination it appears that the applicant is entitled to a patent under the law, the Commissioner shall issue a patent therefor"); *see also* 37 C.F.R. § 1.104(c) (1998) (addressing the rejection of patent claims).

56. *See* 35 U.S.C. § 132; *see also* 37 C.F.R. §§ 1.116, 1.121, 1.125-.127 (1998).

57. *See* 35 U.S.C. § 134 (providing that "an applicant for a patent, any of whose claims have been twice rejected, may appeal from the decision of the primary examiner to the Board of Patent Appeals and Interference, having once paid the fee for such appeal"); *see also* 37 C.F.R. §§ 1.191-.198 (1998) (setting forth the procedures for appealing a denied claim).

58. *See* 35 U.S.C. §§ 141-144 (1994). With respect to judicial review, the aggrieved inventor has a number of alternatives. First, the inventor may appeal a Patent Board of Appeals decision to the Court of Appeals for the Federal Circuit with review limited to the "record before the Patent and Trademark Office." *Id.* § 144. Second, the inventor may file a civil action against the Commissioner in the United States District Court for the District of Columbia. *See* 35 U.S.C. § 145

Once the examiner approves the application, the inventor receives "the right to exclude others from making, using, offering for sale, or selling" the patented invention throughout the United States for a period of twenty years.[59] If anyone violates these rights during this period, the patentee may bring a claim for infringement.[60] In addition, a claimant may seek to recover monetary damages,[61] receive an injunction,[62] or both. Additionally, since patents have the attributes of personal property,[63] the patentee may transfer, assign, or license his rights in the patent.[64] In return for the grant of patent protection, however, the patentee must make a full disclosure of the invention consistent with the specifications set forth by the Patent Act.[65]

(1994). Finally, the inventor may seek review via a writ of mandamus or relief under the Administrative Procedure Act with respect to Patent Office decisions other than those made by the Patent Board of Appeals. *See* 5 U.S.C. §§ 702-704 (1994). *See, e.g.*, United States *ex rel.* Steinmetz v. Allen, 192 U.S. 543 (1904) (holding that mandamus is a proper remedy when the Commissioner of Patents refused to require the primary patent examiner to forward an appeal to the Board of Examiners in Chief for the review of the primary examiner's determination).

59. 35 U.S.C. § 154(a)(1) (1994).

60. *See* 35 U.S.C. § 281 (1994) ("A patentee shall have a remedy by civil action for infringement of his patent."). The patentee must bring the infringement claim in federal court. *See* 28 U.S.C. § 1338(a) (1994) ("The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents .... Such jurisdiction shall be exclusive of the courts of the states."). *See generally* HARMON, *supra* note 33, at 299-356 (discussing federal jurisdiction over patents).

61. *See* 35 U.S.C. § 284 (1994). Section 284 contemplates compensatory damages as the primary monetary relief as it provides "[u]pon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer." *Id.* The basic theory of awarding compensatory damages is to compensate the patent owner for the loss attributable to the infringer's illicit activity and to restore the patentee to the financial position that he would have occupied but for the infringement. *See* Seymor v. McCormick, 57 U.S. (16 How.) 480, 486 (1853). Section 284 also allows the court, in its discretion, to award the patentee increased damages up to three times the compensatory amount, but this usually only occurs if the court finds that the infringement was willful or wanton. *See* Roberts v. Sears, Roebuck & Co., 723 F.2d 1324 (7th Cir. 1983); Yoder Bros. v. California-Florida Plant Corp., 537 F.2d 1347, 1383-84 (5th Cir. 1976).

62. *See* 35 U.S.C. § 283 (1994).

63. *See* 35 U.S.C. § 261 (1994).

64. *See* Waterman v. Mackenzie, 138 U.S. 252, 255 (1891) (holding that patentee may assign, grant, convey, or license his patent rights).

65. *See* 35 U.S.C. § 112 (1994). Section 112 states:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear,

II. SPORTS MOVES AND THE PATENT ACT

In his article, Robert Kunstadt argues that athletic moves are so integral to the success of the sporting industry that they deserve the protection of patent law.[66] He asserts that patent protection might be accorded to moves that impact a useful result, such as faster races or longer jumps.[67] Before a patent could be issued, however, athletes would have to prove that their moves fall within a recognized subject matter appropriate for patent.[68] Furthermore, if sports moves met this threshold test for patentability, they also would have to meet the Patent Act requirements of usefulness,[69] novelty,[70] and nonobviousness.[71] This part discusses these statutory requirements, explores whether sports moves could fit within the ambit of these elements, and concludes that, although sports moves might satisfy the subject matter requirement in general, the novelty and nonobviousness requirements restrict the types of sports moves potentially eligible for patent protection.

A. Elements of a Patent: Statutory Requirements

1. Appropriate Subject Matter

Before a sports move can receive patent protection, like all inventions, it must meet the Patent Act subject matter requirement.[72] This statutory scheme emphasizes that patent

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concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Id.

66. *See supra* notes 2-5 and accompanying text.

67. *See* Kunstadt, *supra* note 1, at C2.

68. *See* 35 U.S.C. § 101 (1994).

69. *See* U.S. CONST. art. I, § 8, cl. 8; 35 U.S.C. § 101.

70. *See* 35 U.S.C. § 102 (1994).

71. *See* 35 U.S.C. § 103 (Supp. II 1996).

72. *See* 35 U.S.C. § 101 ("Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent."); *see also* Kewanee Oil v. Bicron Corp., 416 U.S. 470, 483 (1974) ("[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter of 35 U.S.C. § 101.").

law focuses on the protection of applied technology,[73] as opposed to advances in nontechnological arts like "the liberal arts, the social sciences, theoretical mathematics, or business and management methodology."[74] The four classes of statutory subject matter—process, machine, manufacture, and composition of matter[75]—have been called the "great and distinct classes of invention,"[76] with roots going back more than 200 years.[77] However, despite dating back to the eighteenth century, these classes have proved to be quite flexible[78] and have been interpreted to cover most of the new technologies that evolved during the past 200 years.[79]

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73. *See In re* Bergy, 596 F.2d 952, 958-59 (C.C.P.A. 1979), *aff'd sub nom.* Diamond v. Chakrabarty, 447 U.S. 303 (1980) ("[T]he constitutionally stated purpose of granting patent rights to inventors . . . is the promotion of progress in the 'useful Arts' rather than in science. . . . [T]he present day equivalent of the term 'useful arts' employed by the Founding Fathers is 'technological arts.'").

74. 1 CHISUM, *supra* note 52, § 1.01, at 1-6.

75. The Patent Act of 1793 allowed for the patent of any "art, machine, manufacture, or composition of matter." Act of Feb. 21, 1793, ch. 11, § 1, 1 Stat. 318, 319. Although process is not mentioned, courts consistently interpreted "art" to mean "process." *See, e.g.*, Cochrane v. Deener, 94 U.S. 780, 788 (1877); Corning v. Burden, 56 U.S. (15 How.) 503, 505 (1853); *see also* 1 CHISUM, *supra* note 52, §1.01, at 1-5. As a matter of clarification, the Patent Act of 1952 changed the language from "art" to "process." *See* Act of July 19, 1952, ch. 950, § 101, 66 Stat. 753, 758 (current version at 35 U.S.C. § 100(b) (1994)).

76. 1 CHISUM, *supra* note 52, §1.01, at 1-5 (quoting *Ex parte* Blythe, 1885 Comm'n Dec. 82, 86 (Comm'r Pat. 1885)).

77. *See In re* Alappat, 33 F.3d 1526, 1552 (Fed. Cir. 1994) ("The terms used in § 101 have been used for over two hundred years—since the beginnings of American patent law—to define the extent of the subject matter of patentable inventions.").

78. *See, e.g.*, Diamond v. Chakrabarty, 447 U.S. 303, 308-18 (1980) (holding that a human-made, genetically-engineered bacterium is patentable subject matter). In April 1987, the Patent Office Commission issued a policy statement that took the position that all non-naturally occurring, non-human, multicelluar living organisms—including animals—are patentable. *See* 1077 U.S. PAT. & TRADEMARK OFF., OFFICIAL GAZETTE 24 (1987). Following this policy statement, the Patent Office issued Patent No. 4,736,866, which granted the first transgenic animal patent for the Harvard Mouse. Since then, patenting transgenic animals has become somewhat common as the Patent Office has issued 85 transgenic animal patents and plans to issue about 90 more. *See* William S. Feiler, *"Birth" of Dolly Raises Patent Issues on Clones; In Absence of Statutory Amendment, Controversy May Remain Unsettled*, N.Y. L.J., Mar. 9, 1998, at S2 (discussing the patentability of human clones).

79. *See* EDMUND W. KITCH & HARVEY S. PERLMAN, LEGAL REGULATION OF THE COMPETITIVE PROCESS 642 (1972). There are, however, some exceptions to this general statement. For example, the patent system has had only a limited role in the fields of medical and surgical techniques, agriculture and, to a lesser extent, computer software. *See* 1 CHISUM, *supra* note 52, § 1.01, at 1-6 to 1-7.

The initial hurdle facing the patentability of sports moves is whether an athlete's move is a "useful process" within the meaning of patent law.[80] A process differs from other classes of statutory subject matter in that it "is not a structural entity but rather an operation or series of steps leading to a useful result."[81] In *Cochrane v. Deener*,[82] the Supreme Court enunciated the now long-standing definition of process as "a mode of treatment of certain materials to produce a given result."[83] The Court further stated that a process "is an act, or series of acts, performed upon the subject matter to be transformed."[84] Thus, in general terms, a process is a method of performing an act that, through a series of steps, produces a new, distinctive result.[85]

Following *Cochrane*, courts have construed "useful process" quite liberally, which has resulted in the patentability of many inventions that were at one time thought outside the scope of

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Also, Congress on rare occasion has seen fit to enact new intellectual property schemes to accommodate particular technologies. *See, e.g.*, Plant Variety Protection Act, 7 U.S.C. §§ 2321-2582 (1994); Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§ 901-914 (1994).

Despite the flexibility of these classes, there are certain categories of discoveries—no matter how useful, novel, and nonobvious—that fall outside the scope of patentable subject matter. Examples of these unpatentable discoveries include the laws of nature, scientific principles, abstract ideas, and mental theories. *See* Diamond v. Diehr, 450 U.S. 175, 192-93 (1981) (holding that an application of a law of nature cannot be the basis for a patent); Gottschalk v. Benson, 409 U.S. 63, 67 (1972) (holding that "[a] principle, in the abstract, is a fundamental truth; an original cause . . . [which] cannot be patented, as no one can claim in either of them an exclusive right"); *In re* Joliot, 270 F.2d 954, 958 (C.C.P.A. 1959) (Rich, J., concurring) (pointing out that "the patent statutes do not authorize the grant of patents on theories but only on *useful* inventions—concrete contributions to the *'useful arts'* referred to in the Constitution") (second emphasis added); Safe Flight Instrument Corp. v. Sunstrand Data Control, Inc., 706 F. Supp. 1146 (D. Del. 1989) (holding concept of windshear unpatentable).

80. *See* Kunstadt, *supra* note 1, at C2. It would be difficult to conceive a sports move that would fall into any of the other classes of patentable subject matter.

81. 1 CHISUM, *supra* note 52, § 1.03, at 1-58.

82. 94 U.S. 780 (1876).

83. *Id.* at 788; *see also Gottschalk*, 409 U.S. at 69-70; Ludlow Corp. v. Textile Rubber & Chem. Co., 636 F.2d 1057, 1059 (5th Cir. 1981) ("A process is a particular method for achieving a particular result."); *In re* Schrader, 22 F.3d 290, 295 (Fed. Cir. 1994).

84. *Cochrane*, 94 U.S. at 787-88. Section 100 of the Patent Act defines a process as a "process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." 35 U.S.C. § 100(b) (1994).

85. *See* 1 LIPSCOMB, *supra* note 21, § 2:4.

patent protection.[86] Since sports moves are neither explicitly nor implicitly excluded from the broad definition of process, they only need to meet the general definition of process. Accordingly, one could conceptualize a sports move—such as a new pitching motion—as a series of acts that produces a new result.[87]

2. Utility

It is not enough that a sports move qualify as a process alone; it must also be useful.[88] The requirement of utility is based on the constitutional objective of promoting the progress of "useful arts."[89] Despite the lack of a comprehensive, universally accepted definition of utility, courts usually interpret the

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86. For instance, it was first thought that, in the field of biology, living, genetically-altered organisms were not patentable. In 1980, however, the Supreme Court issued a landmark decision which allowed the patenting of living organisms. *See* Diamond v. Chakrabarty, 447 U.S. 303 (1980); *see also supra* note 78. The history of the patentability of computer software also demonstrates that the term "process" has received liberal treatment. The Supreme Court first considered the patentability of computer software in *Gottschalk*, 409 U.S. at 63. Although not squarely addressing the ultimate patentability of computer software, language employed by the Court led to the belief that computer software was outside the scope of patent protection. *See* Jur Strobos, *Stalking the Elusive Patentable Software: Are There Still* Diehr *or Was It Just a* Flook, 6 HARV. J.L. & TECH. 363, 376 (1993) (discussing the circumstances under which computer software is patentable). Subsequent decisions seemed to reinforce this belief. *See, e.g.*, Parker v. Flook, 437 U.S. 584 (1978) (holding that a patent claim directed at computer-driven monitoring of a chemical catalytic process was unpatentable). More recent decisions, however, appear to have changed this belief and now, under appropriate circumstances, an inventor may patent computer software. *See, e.g.*, Diamond v. Diehr, 450 U.S. 175 (1981) (granting a patent based on an improved method of curing molded synthetic rubber which involved the use of specialized computer software); State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998); Arrhythmia Research Tech., Inc. v. Corazonix Corp., 958 F.2d 1053 (Fed. Cir. 1992). For a detailed account of the history and the current status of the patentability of computer software, see 1 CHISUM, *supra* note 52, § 1.03[6], at 1-78.1.

87. An excellent example of this was Candy Cummings's revolutionary invention of the curveball. Cummings, a member of the Baseball Hall of Fame, began working on the curveball while at boarding school in 1864, after the idea came to him as the result of throwing clam shells. *See* PAUL DICKSON, THE DICKSON BASEBALL DICTIONARY 118-19 (1989). He first used his new pitch in 1876 as a member of the Brooklyn Excelsiors. *See* Craig Marine, *All the Copyrighted Moves*, S.F. EXAMINER, June 23, 1996, at D1. See *infra* Part II.B.1 for further discussion of this concept.

88. *See* 35 U.S.C. § 101 (1994).

89. U.S. CONST. art. I, § 8, cl. 8.

term liberally.[90] The majority of courts hold that an invention is useful if it is capable of performing some beneficial function.[91] Thus, in reality, the utility requirement is seldom a barrier to patentability.[92]

3. Novelty

Once the patent examiner determines that a sports move qualifies as a useful process, the next inquiry is whether the move satisfies the condition of novelty.[93] The novelty requirement lies "at the heart of the patent system."[94] Patent monopolies serve the purposes of stimulating useful invention, protecting investments required to produce invention, and en-

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90. *See* Bedford v. Hunt, 3 F. Cas. 37 (C.C.D. Mass. 1817) (No. 1217) ("The law . . . does not look to the degree of utility; it simply requires, that it shall be capable of use, and that the use is such as sound morals and policy do not discountenance or prohibit."); Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1573 (Fed. Cir. 1987) ("Under our economic and patent systems, valuation of the *worth* of an inventor's contribution is left to the public, *not* to the judiciary in determining patentability."); *see also* 1 LIPSCOMB, *supra* note 21, § 5:3. In patent practice, the terms "utility" and "usefulness" are used interchangeably. *See id.*

91. *See, e.g.*, Carpet Seaming Tape Licensing Corp. v. Best Seam, Inc., 694 F. 2d 570 (9th Cir. 1982); Studiengesellschaft Kohle, m.b.H. v. Eastman Kodak Co., 616 F.2d 1315, 1338-40 (5th Cir. 1980); Cusano v. Kotler, 159 F.2d 159, 162 (3d Cir. 1947); Tol-O-Matic, Inc. v. Proma Produkt-und Mktg. Gesellschaft m.b.H., 945 F.2d 1546, 1552-53 (Fed. Cir. 1991). These courts have adopted a view of utility first proposed by Justice Story in 1817: "All that the law requires is, that the invention should not be frivolous or injurious to the well-being, good policy or sound morals of society." Lowell v. Lewis, 15 F. Cas. 1018 (C.C.D. Mass. 1817) (No. 8568).

With respect to a "process," utility has been defined as the ability to produce a result, and that result must be a good result. *See In re* Nelson, 280 F.2d 172, 180 (C.C.P.A. 1960). Furthermore, to comply with the utility requirement, an invention need not be superior to existing products or processes. *See* Vornado Air Circulation Sys., Inc. v. Duracraft Corp., 58 F.3d 1498, 1508 (10th Cir. 1995); *Studiengesellschaft Kohle*, 616 F.2d at 1339 ("To require the product to be the victor in the competition of the marketplace is to impose upon patentees a burden far beyond that expressed in the [patent] statute[s]."); Imperial Chem. Indus., PLC v. Henkel Corp., 545 F. Supp. 635, 645 (D. Del. 1982) ("[C]ommercial success is not the standard of usefulness under the Patent Act."); *see also* 1 CHISUM, *supra* note 52, § 4.01, at 4-2.

92. For instance, games have been held patentable because recreation and amusement constitute beneficial purposes. *See* Cusano v. Kotler, 159 F.2d 159 (3d Cir. 1947); 1 CHISUM, *supra* note 52, § 4.01, at 4-2. There have also been numerous patents granted in subject areas such as astrology. *See infra* note 132.

93. *See* 35 U.S.C. § 102 (1994).

94. 1 CHISUM, *supra* note 52, § 3.01, at 3-3.

couraging disclosure of trade secrets.[95] However, the social costs of securing these benefits include costs typically associated with monopolies: "reduced output and higher prices."[96] Accordingly, the Patent Act requirements provide a balance between these social costs and benefits with novelty, deterring inventors from engaging in original inventive activities that will not in fact increase "the store of common knowledge."[97] The novelty element usually acts in a negative fashion, denying patent protection to any invention that is not new.[98] However, despite this negating effect, section 102 of the Patent Act essentially provides for a presumption of novelty,[99] since the Patent Office has the initial burden of coming forward with evidence to disprove novelty.[100]

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95. *See* Aronson v. Quick Point Pencil Co., 440 U.S. 257, 262 (1979) ("First, patent law seeks to foster and reward invention; second it promotes disclosure of inventions."); *see also* Mannington Mills, Inc. v. Congoleum Indus., Inc., 610 F.2d 1059, 1070 (3d Cir. 1979) ("The purpose . . . is to provide an incentive for private enterprise to devote resources to innovative research.").

96. PHILIP AREEDA & LOUIS KAPLOW, ANTITRUST ANALYSIS 150 (Aspen Law & Bus., 5th ed. 1997) (1967); *see also* 1 CHISUM, *supra* note 52, § 3.01, at 3-3. In other words, there are public costs associated with the right to exclude, including inflated prices and over investment. *See* Cover v. Hydramatic Packing Co., 83 F.3d 1390, 1392-93 (Fed. Cir. 1996) (citing RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 36-37 (3d ed. 1986) (1973)). "The patent system seeks to maintain an efficient balance between the incentives to create and commercialize and the public costs [embodied] in these incentives." *Id.* at 1392. It should be noted, however, that increased prices and reduced output are not unique to patents but rather are typical byproducts of all monopolies. *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 295-308 (Aspen Law & Bus., 5th ed. 1998) (1973).

97. Dewey & Almy Chem. Co. v. Mimex Co., 124 F.2d 986, 989 (2d Cir. 1942); *see also* 1 CHISUM, *supra* note 52, § 3.01, at 3-4.

98. *See* 1 CHISUM, *supra* note 52, § 3.01, at 3-4.

99. "[A] person shall be entitled to a patent unless . . . ." 35 U.S.C. § 102 (1994).

100. *See In re* Wilder, 429 F.2d 447, 450-51 (C.C.P.A. 1970), where the Court of Customs and Patent Appeals held:

> If an applicant had to prove novelty before he could obtain a patent he would have an almost insurmountable burden. Therefore, [35 U.S.C. § 102] provides for what may be said to be a presumption of novelty . . . . What this means . . . is that the Patent Office has the initial burden of coming forward with some sort of evidence tending to disprove novelty.

Id. at 450.

4. Nonobvious

The final requirement for patenting an invention is that the invention be nonobvious.[101] Although this requirement is closely related to the concept of novelty, an invention may be novel and fall within the proper subject matter and yet be unpatentable if the invention would have been obvious to one ordinarily skilled in the relevant art at the time the invention was made.[102] Therefore, "[n]onobviousness is distinct from novelty in the sense that an invention may be obvious even though it is not identically disclosed anywhere in the prior art."[103] Despite this difference, the general purpose behind the nonobvious requirement is the same as that behind the novelty requirement.[104]

In *Graham v. John Deere Co.*,[105] the Supreme Court articulated the test for determining the obviousness of a patent claim. The Court held that section 103 of the Patent Act requires courts or patent examiners to compare the scope and content of the prior art relied upon; identify the difference or differences between each patent claim and the prior art; and determine the level of ordinary skill in the pertinent art at the time the invention was made.[106] In essence, the Court formulated a highly factual inquiry, grounded not in terms of the result achieved by the invention but rather on what one "skilled

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101. *See* 35 U.S.C. § 103 (1994 & Supp. II 1996).

102. Section 103 provides:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, 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.

Id.

The nonobvious requirement originated as a judicial doctrine and was not part of the patent statutes until the passage of the 1952 Patent Act. *See* Graham v. John Deere Co., 383 U.S. 1, 6 (1966).

103. 2 CHISUM, *supra* note 52, § 5.01, at 5-11.

104. *See* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150 (1989) ("Taken together, the novelty and nonobviousness requirements express a congressional determination that the purposes behind the Patent Clause [of the U.S. Constitution] are best served by free competition and exploitation of either that which is already available to the public, or that which may be readily discerned from publicly available material.").

105. 383 U.S. at 1.

106. *See id.* at 17.

in the art" would find obvious.[107] In light of the rapid expansion of patentable technology, the Court opined that "[i]t is but an evenhanded application [of section 103] to require that those persons granted the benefit of a patent monopoly be charged with an awareness of these changed conditions [in technology]."[108] Therefore, even if an invention produces a new result, it may nonetheless fail the nonobviousness test if it the result is foreseeable based on previous inventions.[109]

B. The Case for Patented Sports Moves

In light of the patent requirements discussed above, the concept of patented athletic moves may seem farfetched. At first glance, this original notion seems to call for a tortured expansion of patent doctrine. However, Kunstadt's argument for patenting sports moves may not be such a bold leap beyond the doctrine currently accepted by the Patent Office. For instance, the Patent Office has granted several process patents relating to various techniques for training athletes.[110]

Additionally, patents like this would seem to exemplify the current trend at the Patent Office.[111] As the number of patent applications continues to increase, the Patent Office has modi-

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107. *See* 2 CHISUM, *supra* note 52, § 5.02[5], at 5-50, 5-54 (analyzing the *Graham* test). The Court also recognized that there will be difficulties in applying the nonobvious test because "what is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context." *Graham*, 383 U.S. at 18.

108. *Graham*, 383 U.S. at 19.

109. According to the Court, "[h]e who seeks to build a better mousetrap today has a long path to tread before reaching the Patent Office." *Id.*

110. *See, e.g.*, Patent No. 5,639,243 ("Training Apparatus, Method for Training an Athlete, and Method for Producing Training Device") (covering a method for training baseball pitchers); Patent No. 4,809,974 ("Method of Attaching a Wrist to a Bar for Exercising"); Patent No. 3,894,148 ("Process for Enhancing the Energy Metabolism of an Athlete"). Other sports related process patents protect various methods of golf training. *See, e.g.*, Patent No. 5,788,588 ("Putting Training Method"); Patent No. 5,779,567 ("Training Method for Golfers"); Patent No. 5,269,528 ("Golf Swing Training Method"); Patent No. 3,791,654 ("Method of Developing a Proper Golf Club Swing").

111. *See, e.g.*, Patent No. 5,498,162 (known as the "box lifting patent"). For a discussion of this patent, see *infra* notes 130-31 and accompanying text. *Cf.* Patent No. 5,387,159 ("A Continuous Wave Generating Apparatus for Simulating Surfriding").

fied and expanded its measure of what is unique and useful enough to warrant patent protection.[112]

1. Expanding Patentable Subject Matter: *Diamond v. Chakrabarty*

These modifications in Patent Office standards directly correlate with the current judicial attitude regarding patentability as set forth by the Supreme Court in the landmark case of *Diamond v. Chakrabarty*.[113] In 1972, Chakrabarty, a microbiologist, filed a patent application asserting thirty-six claims related to his invention of a strain of bacteria capable of breaking down multiple components of crude oil.[114] Because no other naturally occurring bacteria possessed this property, Chakrabarty thought his invention would have significant value for the treatment of oil spills.[115] The Patent Office allowed a number of Chakrabarty's claims relating to the method of producing the bacteria, but rejected his claim to the actual bacteria.[116] The Patent Office Board of Appeals affirmed the rejection on the basis that bacteria, as living organisms, were not patentable subject matter.[117] Chakrabarty appealed to the Court of Customs and Patent Appeals, which reversed.[118]

Unsatisfied with the outcome in the Court of Customs and Patent Appeals, the Commissioner of Patents and Trademark petitioned the Supreme Court for certiorari. The Court granted

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112. The number of annual patent applications filed with the Patent Office has nearly doubled from 1985 to 1996 and now averages more than 200,000 per year. *See* Walsh, *supra* note 7, at 5.

113. 447 U.S. 303 (1980).

114. *See id.* at 305.

115. *See id.* At the time Chakrabarty filed his patent application, the method for treating oil spills involved the use of a mixture of naturally occurring bacteria, each capable of breaking down only one component of the oil complex. *See id.* at 305 n.2. By breaking down multiple components of oil, Chakrabarty's microorganism promised more rapid and efficient control of oil spills. *See id.*

116. *See id.* at 306. The Patent Office also allowed Chakrabarty's patent claims for "inoculum comprised of a carrier material floating on water, such as a straw, and the new bacteria." *Id.*

117. *See id.* at 306.

118. At first the Court, by a divided vote, reversed the Patent Board, but later vacated the judgment due to the Supreme Court's decision in a related case, *In re Bergy*, 438 U.S. 902 (1978). After re-examination, however, the Court, with only one dissent, reaffirmed its earlier judgment. *See Chakrabarty*, 447 U.S. at 306.

the Commissioner's petition,[119] and thus, the question before the Court was whether a live, human-engineered microorganism was patentable subject matter under section 101.[120] The Court, viewing the issue as a "narrow one of statutory interpretation,"[121] held that the bacteria were indeed a patentable composition of matter under section 101.[122]

The importance of *Chakrabarty* is not so much the Court's finding that these bacteria were patentable but rather its reasoning and expansive reading of section 101. The Court deferred to the plain congressional intent and held that "the patent laws would be given wide scope."[123] The Court reasoned that Congress demonstrated its intent by employing broad, general language in drafting the Patent Code.[124] The Court felt it "should not read into the patent laws limitations and conditions which the legislature has not expressed."[125] Moreover, the majority, relying on legislative committee reports, stated that Congress intended that patentable subject matter "*include anything under the sun that is made by man.*"[126] In deferring to Congress, the Court rejected policy-based claims concerning the merits of patenting living organisms, emphasizing that these concerns should be addressed by the political branches of government and not the courts.[127]

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119. Parker v. Chakrabarty, 444 U.S. 924 (1979).

120. *See Chakrabarty*, 447 U.S. at 305.

121. *Id.* at 307.

122. *See id.* at 318. In its analysis, the Court first looked to the language of 35 U.S.C. § 101 and stated that "unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning." *Id.* at 308 (quoting Perrin v. United States, 444 U.S. 37, 42 (1979)).

123. *Id.* at 308.

124. *See id.* at 308-09.

125. *Id.* at 308 (quoting United States v. Dubilier Condenser Corp., 289 U.S. 178, 199 (1933)).

126. *Id.* at 309 (emphasis added) (quoting S. REP. NO. 82-1979, at 5 (1952); H.R. REP. NO. 82-1923, at 6 (1952)). The same language was used by P.J. Federico, a principal draftsman of the 1952 Patent Act, when he testified regarding the proposed legislation: "[U]nder section 101 a person may have invented a machine or manufacture, which may include anything under the sun that is made by man." *Id.* at 309 n.6 (citing *Hearings on H.R. 3760 Before Subcomm. No. 3 of the House Comm. on the Judiciary*, 82d Cong. 37 (1951)).

127. The Court reasoned that "[t]he choice we are urged to make is a matter of high policy for resolution within the legislative process after the kind of investigation, examination, and study that legislative bodies can provide and courts cannot." *Id.* at 317. The Court also re-emphasized that its task is merely the "narrow one of determining what Congress meant by the words it used in the statute," and that the Court must put aside its individual appraisal of the wis-

Chakrabarty had an immediate impact on the Patent Office, forcing the agency to broaden its consideration of patents.[128] According to the Deputy Solicitor in the Patent Office, "*Chakrabarty* . . . has pushed us into areas that 30 years ago we were not sure of."[129] A prime example of this new attitude is illustrated by the Patent Office's recent grant of the so-called box-lifting patent.[130] The box-lifting patent describes a way to demonstrate the proper process with which to lift and set down a box to reduce the likelihood of back injury.[131] Another example of *Chakrabarty*'s effect includes the granting of more than a dozen astrology-related patents.[132] Although mocked by many members of the patent bar, patents like these illustrate that the Patent Office took seriously *Chakrabarty*'s message that "anything under the sun that is man made" is patentable.[133] This relaxed attitude within the Patent Office and the Court's highly deferential attitude toward what constitutes appropriate patentable subject matter lends considerable support to the notion of patented sports moves.

Extending the logic of *Chakrabarty* to the already flexible definition of what constitutes a process,[134] it is not difficult to imagine sports moves that fall within the realm of patentable subject matter. Sports moves may be viewed as a procedure or method, consisting of a series of steps, designed to produce a given result that previously was non-existent in that sport. The benchmark example of such a move is the Fosbury Flop, which revolutionized the sport of high jumping.[135] Before Dick

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dom, or lack thereof, of a particular legislative course while interpreting a statute. *Id.* at 318.

128. *See* Walsh, *supra* note 7, at 6.

129. *Id.*

130. Patent No. 5,498,162 ("A Method for Demonstrating a Lifting Technique"); *see supra* note 111 and accompanying text.

131. *See id.* As anomalous as this patent sounds, it is not the first patent ever issued on the proper process for lifting an object. *See* Walsh, *supra* note 7, at 6.

132. *See, e.g.*, Patent No. 5,816,819 ("Zodiac Game and Method for Play"); Patent No. 4,193,213 ("Astrological Fortune Telling Device"); *see also* Walsh, *supra* note 7, at 6.

133. Walsh, *supra* note 7, at 6. Another example of the Patent Office taking *Chakrabarty's* holding to heart is the patent granted for the musical condom. *See* Patent No. 5,163,447 ("Amusement Device for Use During Sexual Intercourse").

134. *See supra* note 86 and accompanying text.

135. *See* 6 GREAT ATHLETES: THE TWENTIETH CENTURY 783-87 (Salem Press eds., 1992) [hereinafter GREAT ATHLETES]; *see also* Marine, *supra* note 87.

Fosbury introduced his new method of jumping over the bar backwards, the standard practice in the sport was to jump over the bar facing forwards.[136] Although Fosbury's method was laughed at initially, today there is not a high jumper in the world who does not use the Fosbury style.[137] Clearly, Fosbury's method could be described in a series of steps. In fact, describing sports moves is not a new concept in patent law. For instance, Baseball Hall of Fame pitcher Nolan Ryan recently received a patent in which he, with great detail and accuracy, described the pitching motion.[138] Likewise, the description of Fosbury's method would incorporate items such as the specific number of steps the jumper should take in the approach to the bar and the movements necessary to execute the jump. The same could be envisioned in many other sports: a new technique for holding a baseball that allows the pitcher to throw at speeds never before seen, or a new stance, grip, and swing that enables a golfer to hit the ball farther.[139]

In addition to meeting the definition of process, any of these moves easily would satisfy the requirement that the process be useful.[140] The beneficial function of these moves is self-evident. For Fosbury, his new move allowed him to take home the gold medal in the high jump at the 1968 Summer Olympics.[141] Also, no baseball pitcher would dispute the claim that the ability to throw a faster pitch produces a "good result."[142]

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136. *See* GREAT ATHLETES, *supra* note 135, at 784; *see also* Marine, *supra* note 87.

137. *See* GREAT ATHLETES, *supra* note 135, at 786.

138. *See* Patent No. 5,639,243 ("Training Apparatus Method for Training an Athlete, and Method for Producing a Training Device"). Among other claims, Ryan's patent covers a specific method for improving the training of baseball pitchers and other athletes. Ryan's patent describes the process of pitching as

> a complex sequence of movements known as the delivery. The delivery includes a leg lift, a stride, and a rotation of the hips and torso when the forward foot strikes the ground. The pitcher's throwing arm winds up and arcs forward during these movements and releases the baseball at a point during the rotation.

Id.

139. Other innovative sports moves potentially eligible for patent are: Pete Gogolak's original soccer-style kicking in football; Chris Evert's two-handed backhand tennis style; and, as previously mentioned, Candy Cummings's original curveball. *See* Marine, *supra* note 87.

140. *See supra* notes 88-92 and accompanying text.

141. *See* THE WORLD ALMANAC 856 (1997); *see also* GREAT ATHLETES, *supra* note 135, at 785.

142. *See supra* note 87. For that matter, what pitcher could argue against

Furthermore, existing case law implicitly supports the argument that sports moves are useful within the context of patent law. Sporting events function as a means of entertainment, and courts have long held that entertainment value can satisfy the requirement of utility.[143] Moreover, courts recognize the "cultural and prophylactic importance of games in our social structure,"[144] and thus the creation of new or improved games and sports "conforms to the patent requirement of being useful."[145] Because a significant part of the entertainment value of sports today stems from watching the players execute their moves, the moves, like the entire sport itself, provide an important benefit and should therefore meet the usefulness test.

2. Novelty and Nonobviousness as Limiting Factors

A vast number of sports moves may be thought of as useful processes; however, due to the Patent Code's mandate that a claimed invention be novel and nonobvious, not all sports moves would be patentable. When applied to sports moves, the novelty and nonobvious elements would limit the breadth of moves that athletes may patent. Under these standards, moves like a Michael Jordan slam dunk or a Willie Mays famous "basket catch"[146] would not be patentable. Basketball players have been dunking for years, and it is highly doubtful that a new Jordan dunk would satisfy the novelty aspect by "increas[ing] the store of common knowledge"[147] in the field of slam dunks. Likewise, moves like a slam dunk or a basket

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the usefulness of Candy Cummings's introduction of the curveball? *See* Marine, *supra* note 87.

143. *See* 1 CHISUM, *supra* note 52, § 4.02, at 4-3.

144. Cusano v. Kotler, 159 F.2d 159, 162 (3d Cir. 1947). *Cusano* involved the challenge to a patent for a new game that resembled shuffleboard. The defendant claimed that the patent was not useful because it did not provide any useful function. *See id.* at 161-62. In rejecting the defendant's argument, the court stated that although "[w]hat the plaintiff invented will not have startling effect on the history of the continents or the arts and sciences . . . we think that the plaintiff's table has offered a contribution to the game playing art." *Id.*

145. *Id.* at 162.

146. Willie Mays had a unique method of catching fly balls in the outfield. Instead of catching the ball over his head like all other baseball players, Willie Mays would catch the ball down low, around his waist. This unique style was dubbed the "basket catch." *See* Marine, *supra* note 87.

147. Dewey & Almy Chem. Co. v. Mimex, 124 F.2d 986, 989 (2d Cir. 1942); *see also supra* note 97 and accompanying text.

catch would also fail the *Graham* test for nonobviousness.[148] The nonobviousness of a new Jordan move must be judged not from the perspective of an ordinary person but rather from that of another professional basketball player.[149] Since there are only a finite number of ways to dunk a basketball, it is unlikely that a new variation would be considered nonobvious in the opinion of another professional player.[150] Moreover, according to long-time United States Olympic skating team coach John A.W. Nicks, "[m]ost 'innovative' or signature skating moves . . . evolve out of dozens of previous variations, and then are themselves copied, tinkered with and, hopefully, improved upon."[151]

In addition to limiting the extent of patentable moves dramatically, the novelty and nonobvious requirements would force athletes to alter their training methods. Athletes would have to take more precautions to preserve their claims of novelty and nonobviousness in moves that are truly new and unique to the rest of the sporting community. These alterations and precautions could prove disruptive to the individual athlete as well as his or her team. Athletes would have to take this disruptive effect into account when deciding whether to patent a move. For instance, athletes interested in patenting any of their moves would have to change the way they practice their sport since novelty requires that the move must not have been known or used by others previously.[152] Athletes seeking patent protection would have to work on their moves individually, outside the sight of any teammates or other competitors.[153] Instead of trying out new moves during an actual game, ath-

148. *See supra* notes 105-09 and accompanying text.

149. *See supra* notes 105-07 and accompanying text.

150. The same is true with respect to unique ways of catching a baseball. According to All-Star third baseman Matt Williams, "You've got to catch a ball any way you can possibly catch it." Marine, *supra* note 87.

151. *Id.* In rejecting the idea of patented sports moves as "ludicrous" and unenforceable, Nicks provides the example of Brian Boitano's signature skating move: a triple lutz with his hands held over his head. Nick states that although Boitano created that move, there must have been "16 or 18 moves like that preceding it." *Id.*

152. *See supra* Part II.A.3.

153. This change will arguably have a greater impact on those athletes who participate in team sports like football and baseball as it could be very disruptive to the overall team.

letes would need to file an application for a patent first to ensure their claim of novelty.[154]

III. PATENT PROTECTION AND ATHLETES' FINANCIAL PROTECTION

Assuming that some sports moves are appropriate subject matter for patent protection,[155] the fundamental question of whether patenting these moves furthers the "general welfare of the Nation" remains.[156] Because patent monopolies are socially justifiable only as long as the benefits of patented inventions outweigh the burden of patent-related monopolies,[157] the question becomes whether the relative benefits of extending patent protection to sports moves outweigh the burdens. This part explores the issues raised by this method of analysis and contends that this question should be answered in the negative. Both practical problems associated with patenting sports moves and public policy considerations suggest that patent law is not the appropriate legal mechanism for encouraging athletic innovation or protecting athletes' investments in the moves that fuel their success.

A. The Athlete's Protection Under Patent Law: Impractical and Illusory

At first glance, it may seem that the twenty-year monopoly granted under the patent system would provide an extra level

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154. However, the statutory presumption in favor of novelty may help athletes overcome its limiting effect. *See supra* notes 99-100 and accompanying text. Because the burden of proof would be on the patent examiner, the athlete would not be faced with the formidable task of showing that his or her move has not been used previously by another athlete.

155. *See supra* Part II.B.

156. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 331 n.1 (1945). In a discussion of the patent system, the Supreme Court noted:

> The purpose is much deeper and the effect much wider than individual gain. It is the promotion of science and the advancement of the arts looking to the general welfare of the Nation that the patent laws hope to accomplish. The individual reward is only the lure to bring about this much broader objective.

Id.

157. *See* Beata Gocyk-Farber, *Patenting Medical Procedures: A Search for a Compromise Between Ethics and Economics*, 18 CARDOZO L. REV. 1527, 1551 (1997); *supra* note 96 and accompanying text.

of financial security for innovative athletes. After considering some of the practical problems surrounding patented sports moves, however, this protection may be largely illusory. Problems dealing with adequate means of patent enforcement, infringement remedies, ownership rights, and potential league regulation of patented moves demonstrate that patent law would provide little, if any, extra financial benefit for athletes.

1. Infringement Remedies and Patent Enforcement

Under the Patent Code, an inventor whose patent has been infringed[158] is entitled to seek both damages[159] and injunctive relief.[160] Both the enforcement of the patent and the determination of the appropriate relief due a patentee present some practical problems in the context of sports moves. For instance, if an athlete were to seek damages from another athlete who violated his or her patent rights, what would be the measure of damages? How would a sports move be valued?

In the usual case for damages from a competitor,[161] the aggrieved patentee is entitled to lost profits.[162] However, to establish entitlement to lost profits, the patentee must show that "but for" the infringement, the patentee would have achieved

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158. The most frequently encountered activities that constitute infringement are set forth in section 271(a): "Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention within the United States . . . during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a) (Supp. II 1996).

159. *See* 35 U.S.C. § 284 (1994). Section 284 provides:

> Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer . . . . When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

Id.

160. *See* 35 U.S.C. § 283 (1994) ("The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.").

161. In the case of infringement by a non-competitor, the lost profits computation would be inapplicable, and the athlete would have to resort to the alternate "reasonable royalty." 35 U.S.C. § 284.

162. *See* Kaufman Co. v. Lantech, Inc. 926 F.2d 1136, 1141-42 (Fed. Cir. 1991) ("[T]he patentee need only show that there was a reasonable probability that the sales would have been made 'but for' the infringement.").

the increased profits.[163] This test seems inappropriate for violations of sports patents. It would be highly speculative that but for the infringement, the patentee would have won the game or that the patentee's potential for stardom diminished. Indeed, it may well be the case that the patentee would have lost the game because he or she was not performing well, or that the loss was the result of certain intangibles such as competing at a different time or venue, or under different physical conditions.[164] Even assuming, however, that the but for test would be satisfied, a valuation problem would still exist. It is unlikely that an athlete could prove with any certainty the value of a lost baseball or football game.[165] The same issues would be present if an athlete sought injunctive relief as an alternative to damages. An athlete probably would have difficulties establishing that irreparable harm would result if other athletes continued to use the patented move.[166]

Like the problems involving the appropriate remedy, some patented moves may not lend themselves to practical enforcement. For example, recall the earlier discussion of the baseball pitcher who invents a new way of holding the baseball such that his fastball is the fastest in the league.[167] Although he arguably would hold the patent on the greatest invention in baseball, the reality of the situation is that the patentee could not adequately protect against the unauthorized use of it. Because pitchers generally keep the ball hidden in their gloves be-

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163. *See id.*

164. Moreover, the issue of causation becomes even more difficult to establish in the context of team sports as more players interact and have an effect on the game's outcome.

165. Under the Patent Code, the minimum damage award is a reasonable royalty, *see* 35 U.S.C. § 284, but again this does not seem to solve the problem of valuation. It only shifts the focus to what is a reasonable royalty, which might actually be a more complicated calculation. For instance, in the context of a patented baseball pitch, should the royalty be measured on a per pitch basis, or should the royalty cover the actual know-how regardless of the number of times the infringing pitcher uses it?

166. Before a court will grant a preliminary injunction against infringement, the patentee has the burden of proving irreparable harm will result if the injunction is not granted. *See, e.g.*, We Care, Inc. v. Ultra-Mark Int'l Corp., 930 F.2d 1567, 1570 (Fed. Cir. 1991). According to the Federal Circuit, a preliminary injunction is "not to be routinely granted." Intel Corp. v. ULSI Sys. Tech., Inc., 995 F.2d 1566, 1568 (Fed. Cir. 1993). Consequently, failure to show irreparable harm will preclude the issuance of an injunction. *See* High Tech Med. Instrumentation, Inc. v. New Image Indus., Inc., 49 F.3d 1551 (Fed. Cir. 1995).

167. *See supra* Part II.B.

fore throwing the pitch, it would seem impossible, short of positioning a camera directly on all pitchers, for the patentee to discover when his patent was being infringed.[168]

2. Ownership Rights

Another complication that may result from the patenting of sports moves is the issue of ownership. In team sports such as football, baseball, and ice hockey, the athlete is merely an employee of the team, and as such, the employment relationship may affect the athlete's rights in the patent. In the employment context, it is a well-established rule that the employee is the owner of the patent rights in the subject matter of which he or she is the inventor.[169] To this rule, however, there are two exceptions and one limitation.[170] First, an employer owns the invention—the sports move—if the employee is a party to an express contract to that effect.[171] Second, and more relevant to sports moves, an employer owns the invention if the employee was hired for the purpose of exercising his or her "inventive faculties."[172] Third, even if the employer does not retain the ownership rights, the "shop right" doctrine may apply, which means that the employer might receive a non-exclusive and non-transferable royalty-free license to use the employee's invention.[173]

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168. Another problematic issue is assigning responsibility for determining when infringement occurs during a game. One suggested possibility is that referees must shoulder this burden. *See* Quentin Letts, *Sports Stars Coached on Patent Law*, TIMES (London), May 14, 1996, at E1. However, in light of the potential liability that referees already face with respect to negligent officiating, it is doubtful that they would agree to such a responsibility. For a discussion of existing tort liability of professional referees, see Kenneth W. Biedzynski, *Sports Officials Should Only Be Liable for Acts of Gross Negligence: Is That the Right Call?*, 11 U. MIAMI ENT. & SPORTS L. REV. 375 (1994).

169. *See, e.g.*, Lariscey v. United States, 949 F.2d 1137, 1144 (Fed. Cir. 1991) ("The general rule is that, absent contractual arrangements to the contrary, an independent discovery belongs to the employee, unless the discovery is within the scope and purpose of the employment.").

170. *See* 8 CHISUM, *supra* note 52, § 22.03, at 22-11.

171. *See id.*

172. This exception is justified on the theory of the existence of an implied contract between the employer and employee. *See* University Patents, Inc. v. Kligman, 762 F. Supp. 1212, 1221 (E.D. Pa. 1991); *see also* 8 CHISUM, *supra* note 52, § 22.03[2], at 22-29.

173. *See* 8 CHISUM, *supra* note 52, § 22.03[3], at 22-40. The "shop right" doctrine applies in situations where an employee, during his or her hours of employ-

Under these rules, it is entirely plausible that team owners would claim ownership of any moves that the athlete patented while on the team. If the patenting of moves became commonplace, owners could just include an express assignment of patent rights clause in the athlete's contract as a condition of employment.[174] Alternatively, owners could argue that the athletes were hired for the purpose of exercising their inventive faculties. Because sports moves are a large part of an athlete's success, owners could claim that they hired the athletes to invent new moves, which in turn would provide for a more successful team.

Even if owners failed to gain outright ownership of an athlete's patented move, they should be able to secure a shop right in the patent. Although less beneficial because team owners could not control licensing of the athlete's patent, the shop right would still be a valuable asset to them. Through the use of shop rights, all players on a given team would be entitled to use the patented move at no expense to the team. In turn, this could help the team remain more competitive without expending any financial resources. In contrast to the benefit provided to ownership and the team in general, the athlete's value in the patent would decline with the grant of shop rights as the athlete would no longer have absolute control over who may use the patented move.[175]

3. Mandatory Licensing and Regulation by Sports Leagues

A final consideration in assessing the effectiveness of increasing an athlete's financial protection through patented

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ment, works with the employer's materials to conceive of and perfect an invention for which the employee receives a patent. *See* United States v. Dubilier Condenser Corp., 289 U.S. 178, 188-89 (1933). The employee is then obligated to give his employer a non-exclusive right to practice the invention. *See id.* The employer, however, is not entitled to a conveyance of the invention; this right remains with the employee-inventor. *See id.*

174. Athletes could argue that this practice violates antitrust laws. However, because professional sports teams enjoy favorable antitrust treatment, it is unlikely that a court would find in favor of the athletes. *See, e.g.*, Steven D. Buchholz, *Run, Kick, and (Im)Passe: Expanding Employers' Ability to Unilaterally Impose Conditions of Employment After Impasse in* Brown v. Pro Football, 81 MINN. L. REV. 1201 (1997); *see also infra* Part III.A.3 (discussing antitrust).

175. This also affects the valuation problems regarding damages for infringement. *See supra* notes 161-65 and accompanying text.

sports moves is the likely response by governing sports bodies if patenting sports moves becomes commonplace.[176] In order to preserve a "level playing field," organizations like the National Basketball League, National Football League, Major League Baseball, and the International Olympic Committee most certainly would amend league rules to address any imbalance created by patented moves.[177] One possible solution would be to ban the use of these moves completely.[178] Alternatively, and more likely, leagues might decide to preempt the athlete's exclusive use of the patented move by mandating that the player-patentee grant a license on reasonable terms to all competitors if the player-patentee wishes to use the move.[179] The adoption of such a policy would, in effect, render illusory any additional financial protection provided for by patent law. Mandatory licensing would force the athlete to choose between surrendering his own financial stake in the patent or not using the move at all in league play.

Although mandatory licensing for a reasonable fee might preserve a level playing field and comport with the notion of fair competition, this scheme is open to a possible attack on antitrust grounds.[180] By asserting antitrust violations, athletes frequently challenge league agreements and rules that impact their financial security.[181] Athletes could argue that these licensing schemes restrain trade, limiting the athlete's ability to perform competitively. They could claim that the restrictive nature of these agreements violates the Sherman Antitrust Act of 1890 ("Sherman Act"),[182] which prohibits "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States."[183]

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176. *See* Kunstadt, *supra* note 1, at C3. A sports league such as the National Football League is a group of professional football club owners. *See* Brown v. Pro Football, Inc., 518 U.S. 231, 234 (1996).

177. *See* Kunstadt, *supra* note 1, at C3.

178. *See id.* By way of analogy, many improvements to sports activities are not implemented in the professional leagues because of such rules, including corked bats, which hit farther, and vaseline-coated baseballs, which curve better. *See id.*

179. *See id.*

180. *See id.*

181. *See generally* Buchholz, *supra* note 174; Gary R. Roberts, *The NCAA, Antitrust, and Consumer Welfare*, 70 TUL. L. REV. 2631 (1996).

182. 15 U.S.C. §§ 1-7 (1994).

183. *Id.* § 1.

Despite the Sherman Act's all-inclusive language, however, a challenge to mandatory licensing would not likely succeed, because the Supreme Court has interpreted the Sherman Act to prohibit only unreasonable restraints of trade.[184] Since organized league sports must use some restraint on competition to create a marketable product, courts analyze potential antitrust practices under the "rule of reason."[185] This analysis allows the court to inquire into an agreement's economic consequences and balance the pro-competitive effects of a restraint against the injury it causes to the freely competitive market.[186] Thus, under the "rule of reason," a restraint of trade will violate the Sherman Act only if its pro-competitive benefits do not outweigh its negative impact on competition.[187]

Application of the rule of reason analysis to the regulation of patented sports moves suggests that mandatory licensing agreements might not unreasonably restrain trade and therefore would not violate antitrust laws.[188] Allowing athletes to monopolize their moves would cut against both the leagues' and the athletes' financial interests in promoting a highly attractive product[189] to consumers, which requires a certain level of uniformity and parity among teams.[190] In order to keep

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184. *See* Standard Oil Co. v. United States, 221 U.S. 1, 61-65 (1911); *see also* NCAA v. Board of Regents of the Univ. of Okla., 468 U.S. 85, 98 (1984) (explaining that because all contracts are restraints of trade in the sense that they limit contracting parties' freedom to negotiate and enter into other contracts, Congress must have intended the Sherman Act to prohibit only unreasonable restraints of trade).

185. *NCAA*, 468 U.S. at 101-03.

186. *See id.* at 103-04.

187. *See id.*

188. In *NCAA*, the Court noted that, with respect to competitive sports, "[a] myriad of rules affecting such matters as the size of the field, the number of players on a team, and the extent to which physical violence is to be considered or proscribed, all must be agreed upon, and all restrain the manner in which institutions compete." *Id.* at 101. Without agreement upon the rules, competition would be completely ineffective. *See id.*

189. The product offered by sports leagues is competition itself—contests between competing teams. *See NCAA*, 468 U.S. at 101.

190. *See* Roberts, *supra* note 181, at 2634 n.10; *see also* James Quirk & Mohamed El Hodiri, *The Economic Theory of a Professional Sports League*, *in* GOVERNMENT AND THE SPORTS BUSINESS 33 (Roger G. Noll ed., 1974). Likewise, the courts have recognized that sports leagues have a strong interest in maintaining a competitive balance among teams. *See NCAA*, 468 U.S. at 117 (maintaining a competitive balance is a "legitimate and important" interest); Mackey v. National Football League, 543 F.2d 606, 621 (8th Cir. 1976) (recognizing that the NFL has a "strong and unique" interest in maintaining competitive balance

consumer demand high, teams must uniformly agree to a set of rules that levels the proverbial "playing field," and this agreement certainly must include provisions on access to certain moves and techniques.[191] Allowing all league players access to performance-enhancing sports moves clearly would promote a more pro-competitive environment, outweighing any individual harm that an inventive athlete might suffer from losing his or her exclusive use of the move. Therefore, due to the probable regulation of patents through mandatory licensing rules and the problems associated with enforcement and ownership, patent law is unlikely to provide athletes with any extra financial security that some argue athletes rightly deserve.[192]

B. The Public's Interest in Patented Sports Moves

Like it or not, sports have unquestionably become a major part of our culture.[193] Consequently, society shares an interest in promoting athletic innovation that improves the overall quality of sports. This section discusses some public policy issues surrounding extending patent coverage to sports moves and suggests that, like the practical problems associated with patenting sports moves, public policy considerations support a conclusion that the burdens of patented sports moves outweigh their benefits.

1. Level the Playing Field

The majority of society's support for the multi-billion dollar sports industry[194] stems from its desire to see a highly entertaining, skillful, and competitive contest.[195] In short, sports

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among its teams).

191. *See* Roberts, *supra* note 181, at 2634 n.10; *see also* Roger G. Noll, *Factors Influencing the Demand for Games*, *in* GOVERNMENT AND THE SPORTS BUSINESS, *supra* note 190, at 115.

192. *See* Kunstadt, *supra* note 1, at C1.

193. *See* PAUL D. STAUDOHAR, PLAYING FOR DOLLARS: LABOR RELATIONS AND THE SPORTS BUSINESS 1-3 (3d ed. 1996) (1986).

194. The gross national product of the sports industry totaled $63.1 billion in 1988. *See* Elizabeth Comte & Chuck Stogel, *Sports: A $63 Billion Industry*, SPORTING NEWS, Jan. 1, 1990, at 60, 60.

195. *See* Noll, *supra* note 191, at 115-16.

fans want athletes to compete on a level playing field.[196] Empirical evidence demonstrates that the close competition created by a competitively balanced league enhances enjoyment of sporting events.[197] The results of a study by economists Henry Demmert and Roger Noll show that fan attendance increases when championship races are closely contested.[198] Competitive balance, however, only occurs when there is relative parity among the teams and "each team has the opportunity of becoming a contender . . . and a reasonable chance of beating any other team on any given night."[199] Consequently, although society has an interest in fostering athletic innovation,[200] allowing patent-holding athletes to monopolize innovations to the exclusion of others would go too far, as it would destroy the competitive equilibrium society desires.[201]

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196. *See* Roberts, *supra* note 181, at 2635; Quirk & El Hodiri, *supra* note 190, at 33-35.

197. *See* Stephen F. Ross, *Monopoly Sports Leagues*, 73 MINN. L. REV. 643, 670 (1989).

198. *See* Noll, *supra* note 191, at 155-57; *see also* HENRY DEMMERT, THE ECONOMICS OF TEAM SPORTS 11 (1973). Demmert's study compared average attendance at games between two good teams and two bad teams during the 1971 Major League Baseball season. *See id.* at 11. Games involving two good teams averaged 24,610 fans, while a contest between two bad teams only drew an average of 9,806 fans. *See id.* at 11 tbl.6.

199. Philadelphia World Hockey Club, Inc. v. Philadelphia Hockey Club, Inc., 351 F. Supp. 462, 486 (E.D. Pa. 1972).

200. *See* Michael E. Canes, *The Social Benefits of Restrictions on Team Quality*, *in* GOVERNMENT AND THE SPORTS BUSINESS, *supra* note 190, at 81, 81-113.

201. The same result would likely be reached if team owners rather than the athletes owned the patents. *See supra* notes 169-75 and accompanying text. For example, it is conceivable that a situation like this would create a climate where inventive players would never leave their teams, because doing so would mean that they could not use their moves. This lack of player mobility would drastically lower the competitive balance within a sports league. *See* Ian Craig Pulver, *A Face Off Between the National Hockey League and the National Hockey League Player's Association: The Goal a More Competitively Balanced League*, 2 MARQ. SPORTS L.J. 39, 41, 66-69 (1991) (arguing that less restrictive free agency rules are necessary to create a competitive balance among teams in the National Hockey League which will result in increased fan attendance). Professor Ross points out that once eliminated, the monopolistic behavior embodied in the Major League Baseball player reserve clause, which bound a player to his team for his entire career unless the team decided to trade, sell, or waive the player, the competitive equilibrium in baseball increased. *See* Ross, *supra* note 197, at 673-76. Likewise, fan attendance also rose markedly after the elimination of the player reserve clause. *See id.* at 676 (stating that in the 10-year period after the elimination of the player reserve clause, overall fan attendance rose 57% to 46,824,379).

2. Patent Law as an Unnecessary Incentive

Another public policy consideration is the increased social costs that accompany the granting of patents.[202] As previously discussed, society justifies the grant of limited monopolies in an effort to provide economic incentives to stimulate invention, innovation, and disclosure.[203] In return, society pays a higher price for new technology during the monopoly period.[204] If invention were to occur regardless of these incentives, however, it seems that granting patents merely would create an extra burden on society in terms of the increased costs consumers would pay for new inventions.[205] This is likely the case with respect to athletes and their motivations to invent new performance enhancing moves. For example, the legendary Dick Fosbury completely rejected the idea that patent protection would provide an incentive to invent new moves.[206] Likewise, baseball superstar Barry Bonds denounced patent law as a means of encouraging new sports moves stating, "[t]here are more important things to worry about . . . than whose style it is."[207]

Moreover, since in all likelihood athletic innovation would occur regardless of the incentives provided by patent law, sound public policy dictates that patent law should not cover sports moves. The right to patent protection is not an absolute constitutional mandate, but rather exists at the sole discretion of Congress as an enumerated legislative power.[208] Consequently, Congress has the power to expand or contract the scope of patentable subject matter in pursuit of the best way to advance public welfare.[209] Although categorical denial of pat-

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202. *See* Noll, *supra* note 191, at 115-57 (discussing how consumers ultimately bear the burden of increased costs in the sporting industry). A recent example of this effect is the increase in television cable rates which consumers must absorb as the result of the new NFL television contract. *See* Stephen Keating, *TCI Plans Cable-Rate Hike Increase of About 5 Percent; Blamed on High Sports Costs*, DENV. POST, Feb. 11, 1998, at A1.

203. *See supra* note 95 and accompanying text; *see also* Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017, 1024 (1989).

204. *See supra* note 96 and accompanying text.

205. *See* Eisenberg, *supra* note 203, at 1024-28.

206. *See* Letts, *supra* note 168; *see also ABC World News Tonight: Sports Trademarks* (ABC television broadcast, May 9, 1996) (transcript number 6093-7).

207. Marine, *supra* note 87.

208. *See* U.S. CONST. art. I, § 8, cl. 8.

209. *See* Mazer v. Stein, 347 U.S. 949 (1954).

entable subject matter is "not the traditional approach of the patent system,"[210] when considering the increased social costs associated with patenting sports moves, Congress would best serve the public welfare by amending the Patent Act specifically to exclude sports moves.[211]

C. Traditional Legal Tools Provide Adequate Protection

A final policy consideration in the argument against allowing patented sports moves is that, in contrast to Kunstadt's opinion,[212] existing legal tools such as traditional contract law provide adequate financial protection for the innovative athlete. Patent law, in reality, would not provide any extra financial benefit beyond what an athlete could achieve through a carefully negotiated contract.[213] Today's professional sports contracts contain numerous clauses that cover a multitude of on- and off-field circumstances and protect athletes' financial stakes in their individual successes.[214] For example, some

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210. Joel J. Garris, *The Case for Patenting Medical Procedures*, 22 AM. J.L. & MED. 85, 104 (1996). Categorical denial of patentability is used sparingly, mostly in the area of national security. *See* 35 U.S.C. § 181 (1994). Likewise, section 2181 of the Atomic Energy Act provides a per se prohibition on the granting of any patent that "is useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon." 42 U.S.C. § 2181 (1994).

211. Another possible avenue open to Congress is to allow athletes to patent their moves but declare the patents unenforceable against other athletes. Recently, Congress did exactly this with respect to medical process patents. *See* Omnibus Consolidated Appropriations Act, Pub. L. No. 104-208, § 616, 110 Stat. 3009 (1997) (codified at 35 U.S.C. § 287(c) (Supp. II 1996)). Originally, the medical community lobby attempted to pass a bill that would exclude, with limited exceptions, "any invention, or discovery of a technique, method, or process for performing a surgical or medical procedure" as patentable subject matter. *See* H.R. 1127, 104th Cong. (1995). However, the biotechnology and pharmaceutical industries strongly opposed H.R. 1127, which ultimately led to the compromise enacted in § 287(c). Section 287(c)(1) provides that with respect to "a medical practitioner's performance of a medical activity that constitutes an infringement . . . the provisions of sections 281, 283, 284, 285 [the damage and injunctive relief provisions] . . . shall not apply . . . ." 35 U.S.C. § 287(c)(1) (Supp. II 1996). In essence, § 287(c) renders medical process-patents meaningless but does not exclude them as patentable subject matter. For a discussion of the public welfare reasons behind restricting patents on medical processes, see Garris, *supra* note 210, at 90-100.

212. *See supra* notes 1-6 and accompanying text.

213. For a discussion of the failure of patent law to provide athletes with any addition financial security, see *supra* Part III.A.

214. *See* Daniel M. Faber, *The Evolution of Techniques for Negotiation of Sports Employment Contracts in the Era of the Agent*, 10 U. MIAMI ENT. & SPORTS

sports agents negotiate football player contracts that contain an "escalator" clause, which entitles the athlete to an automatic upward salary adjustment if he is selected to the Pro Bowl.[215] Similarly, most professional athlete contracts contain bonus clauses that provide for added compensation based on certain predetermined levels of performance.[216] Bonus clauses may cover any conceivable situation and are limited only by the creativity of the parties negotiating the contract.[217]

Following this freedom of contract concept, athletes could negotiate a clause that would offer increased compensation for the invention of a highly successful sports move.[218] For instance, a baseball pitcher could contract for a bonus payment for every new pitch that he invents that meets certain criteria, such as exceeding the speed of a conventional fastball by ten miles per hour or curving more than any existing curveball. Thus, through the use of contract law, athletes could protect their financial interests in new and useful moves, while at the same time avoiding all the problems associated with obtaining

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L. REV. 165 (1993); Martin J. Greenberg, *Drafting of Player Contracts & Clauses*, 4 MARQ. SPORTS L.J. 51 (1993).

215. *See* Greenberg, *supra* note 214, at 59-60. One mechanism is to recalculate the player's compensation based on an average of all the other players selected to the Pro Bowl at the same position. *See id.* Alternatively, many player contracts call for specific monetary bonuses upon selection to the Pro Bowl. *See* Don Banks, *Purple Pride to be Prevalent in Hawaii*, STAR-TRIB. NEWSPAPER OF THE TWIN CITIES, Dec. 17, 1998, at C1; Adam Schefter, *Davis Cruises to Bonus with Pro Bowl Selection*, DENV. POST, Dec. 12. 1997, at D4; *Vikings' Moss Gathers $500,000 Pro Bowl Bonus*, CHI. TRIB., Dec. 19, 1998, at C4. Another state-of-the-art use of an escalator clause is tying a player's salary to that of his peers. This method allows for a player's salary to rise with the market. *See* Faber, *supra* note 214, at 183. Agent Leigh Steinberg used this technique in negotiating Warren Moon's 1989 contract with the Houston Oilers, calling for Moon to be one of the three highest-paid quarterbacks in the NFL. *See id.*

216. *See* Greenberg, *supra* note 214, at 65-70. For instance, running back Mike Rozier structured his 1990 contract with the Atlanta Falcons as follows: on top of a base salary, Rozier earned $30,000 for rushing for 200 yards, an additional $30,000 for rushing for 400 yards, and another $40,000 for reaching 600 yards. *See* Faber, *supra* note 214, at 189. Also, an Associated Press survey revealed that of the first 57 players named to the 1991 baseball All-Star Game, 33 received incentive bonuses ranging from $15,000 to $50,000. *See* Bill Jaus, *It's Time for the Bonus Round*, CHI. TRIB., July 9, 1991, at C5.

217. *See* Greenberg, *supra* note 214, at 65-70. In addition to on-field performances, teams also offer attendance-based bonuses to those players whose presence on the team will draw fans. *See* Faber, *supra* note 214, at 189.

218. For a complete discussion of negotiating techniques available to the athlete, see generally Faber, *supra* note 214.

and enforcing a patent on the new moves.[219] Consequently, if sports moves are truly a driving force behind athletes' successes, then the more inventive athlete would be able to command a higher price when negotiating with team owners.[220] If an owner would not pay the extra premium generated by the successful move, the athlete would be free to seek employment with other teams.

CONCLUSION

Sports today have become big business, and athletes who help push their sport to new levels are entitled to adequate financial protection. Athletic innovation should be encouraged, and athletes whose ground-breaking moves take their sport to new heights should be rewarded. Yet such incentive and reward should not come in the form of patent protection. The benefits an athlete would gain through patented sports moves would be minimal. In addition, there would arise a myriad of practical problems associated with mixing patent law and professional athletics. Sports stars can, this comment contends, more effectively protect their financial interests using the existing legal tools provided by contract law than through patent law. Furthermore, society as a whole benefits from the flexibility afforded by a contractual approach, which levels the playing field and preserves competitive balance among teams and athletes. In sum, athletic competition belongs on the playing field, not at the Patent Office or in the federal courts.

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219. *See supra* Part III.A.

220. As an additional consideration, however, athletes should keep in mind the extra costs generated by patenting their moves. If athletes routinely patented and then licensed their moves as a way of making additional money, this behavior would likely drive up the cost to the fans who watch and support the athletes. This method could eventually backfire on the athletes and render their patents worthless if prices went too high and fans found something else to do. *See* Keating, *supra* note 202 (discussing detrimental effects of passing along sports costs to the consumer).