

STRATEGIES FOR DISCERNING THE BOUNDARIES OF COPYRIGHT AND PATENT PROTECTIONS

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INTRODUCTION

Copyright and utility patent laws have historically regulated different types of intellectual creations.¹ Copyright protection has been available for original works of authorship,² and utility patent protection for inventive technologies.³ Overlaps in these two types of intellectual property (IP) rights have largely been avoided through the very different statutory subject matters of each law’s protection,⁴ as well as through channeling doctrines that courts have developed to manage the boundaries when statutory subject matter differences alone have not sufficed.⁵

1 The U.S. Constitution offers a key distinction between copyright and utility patent subject matters in giving Congress the power to grant exclusive rights for limited times to authors and inventors in “their respective [w]ritings and [d]iscoveries” as a means to promote the progress of science and the useful arts. U.S. CONST. art. I, § 8, cl. 8.

2 17 U.S.C. § 102(a) (2012). The first copyright statute was enacted in 1790. See Copyright Act of 1790, ch. 15, 1 Stat. 124 (1790) (repealed 1831) (“An Act for the encouragement of learning.”).

3 35 U.S.C. § 101 (2012). The first patent statute was enacted in 1790. See Patent Act of 1790, ch. 7, 1 Stat. 109 (1790) (repealed 1793) (“An Act to promote the progress of useful Arts.”).

4 The subject matters of the Patent Act of 1790 were “any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used.” Patent Act of 1790, § 1. Patent subject matter today is virtually identical to that in the 1790 Act, although over time the term “process” was substituted for “useful art,” “compositions of matter” were added to the subject matter provision, and “engine” and “device” dropped out. 35 U.S.C. § 101. The subject matter of the Copyright Act of 1790—maps, charts, and books—was much narrower than the subject matter of copyright under current law. Cf. 17 U.S.C. § 102(a); Copyright Act of 1790, § 1; see Pamela Samuelson, *Evolving Conceptions of Copyright Subject Matter*, 78 U. PITT. L. REV. 17 (2016) (discussing the history of expansions in copyright subject matters). For a general discussion of the boundaries of IP regimes, see for example Christopher Buccafusco & Mark A. Lemley, *Screening Functionality* (Stanford Pub. Law Working Paper No. 2888094, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2888094; Mark P. McKenna & Christopher Jon Sprigman, *What’s in, and What’s Out: How IP Boundary Rules Shape Innovation* (Feb. 19, 2016) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2735073.

5 Patent law, for instance, excludes copyright subject matters from its domain largely through its “printed matter” and “mental process” doctrines. See, e.g., Kevin Emerson Collins, *Semiotics 101: Taking the Printed Matter Doctrine Seriously*, 85 IND. L.J. 1379, 1402 n.134, 1404 n.148 (2010); see also *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1349–56 (Fed. Cir. 2005) (invalidating the patent for an electronic kiosk authoring system because its reference to the system’s conformance with good standards of aesthetics rendered the claims indefinite). The main copyright doctrines that channel patent subject matters out of copyright’s domain are the “useful article” limitation on “pictorial, graphic, and sculptural works,” 17 U.S.C. § 101 (providing definitions of “pictorial, graphic, and sculptural works” and “useful article”), and the exclusions of processes, systems, and methods of operation depicted or otherwise embodied in copyrighted works, *id.* § 102(b). See, e.g., *Smith & Hawken, Ltd. v. Gardendance, Inc.*, 75 U.S.P.Q.2d 1853, 1855 (N.D. Cal. 2005) (“The useful article doctrine serves the important policy of keeping patent and copy-

The copyright and utility patent regimes differ not only in their subject matters, but also in the starkly distinctive mechanisms by which protection arises and the duration for which protections last.⁶ The relative ease of acquiring copyright, its long duration, and broad scope, as compared with a utility patent, may tempt creators to claim copyright protection in creations that are utility patent subject matter.⁷

Notwithstanding this temptation, it has been relatively rare for creators to assert both copyright and utility patent protections in the same intellectual creations. Yet it has happened on occasion.⁸ One such claim arose in *Baker v. Selden*, whose plaintiff contended that copyright protected the novel book-keeping system disclosed in the author's book, a system for which Selden had sought, but apparently had not obtained, a utility patent.⁹ In *Baker*, the Supreme Court rejected Selden's claim and seemingly endorsed a categorical exclusivity approach under which intellectual creations should be understood to be eligible for either copyright or utility patent protection, but not for both.¹⁰

The principal authority that has regarded overlapping copyright and utility patent protections to be unproblematic has been the Nimmer copyright treatise.¹¹ The treatise's treatment of the copyright/utility patent overlap issue is, however, deeply flawed. Those flaws notwithstanding, the Supreme Court has been skeptical of categorical exclusivity arguments in some IP cases. This skepticism suggests the need for more nuanced strategies when attempting to discern the proper boundaries of copyright and utility patent protections than the one-or-the-other-but-not-both approach endorsed in *Baker* or the overlaps-are-fine approach endorsed in the Nimmer treatise.

When presented with copyright claims as to seemingly ambiguous subject matters, such as toys, puzzles, and computer programs, courts and the Copyright Office have developed several different responses. The most common has been a layering or segmentation approach under which courts treat

right separate by preventing parties from using copyright to obtain a 'backdoor patent' on a functional article that cannot be patented." (citing 17 U.S.C. § 102(b)). The useful article limitation on copyright subject matter is discussed *infra* Section II.C. See also Bruce E. Boyden, *Games and Other Uncopyrightable Systems*, 18 GEO. MASON L. REV. 439, 447 (2011) (characterizing § 102(b) as intended to channel processes and systems in copyrighted works to the patent system); Viva R. Moffat, *The Copyright/Patent Boundary*, 48 U. RICH. L. REV. 611, 617–33 (2014) (discussing the useful article doctrine as a channeling doctrine). Another copyright channeling doctrine can be found in 17 U.S.C. § 113(b) (copyright does not extend to designs of useful articles depicted in copyrighted works).

6 These differences are discussed at some length *infra* text accompanying notes 13–35.

7 Exemplary cases are discussed *infra* Section I.A.

8 Parts I and II give several examples of intellectual creations whose authors/inventors have claimed both copyright and patent protections for their creations.

9 *Baker v. Selden*, 101 U.S. 99, 99–102 (1879).

10 *Id.* at 104, 107.

11 See 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2A.07 (2016).

some aspects of an intellectual creation as protectable by copyright law (e.g., an original drawing of a parachute), while other aspects may be protectable, if at all, by utility patents (e.g., a design of a parachute).¹² But five other strategies for determining copyright and utility patent boundaries are evident in the literature, each of which has sought to preserve separate and distinct domains for copyright and utility patent protections.

I. COPYRIGHT AND UTILITY PATENT BOUNDARIES: MUTUALLY EXCLUSIVE OR OVERLAPPING?

There are both constitutional and statutory reasons why courts for well over a century have maintained sharp distinctions between the copyright and utility patent domains.¹³ The U.S. Constitution plainly distinguishes the “[w]ritings” of “[a]uthors,” which it gives Congress the power to protect through copyright laws, and “[i]nvent[ions]” in the “useful [a]rts,” which Congress can protect by enacting patent laws.¹⁴ That the framers of the Constitution conceived of copyright and patent as having separate domains is evidenced by the document’s reference to the “*respective* [w]ritings and [d]iscoveries” of authors and inventors.¹⁵ The framers also envisioned that the two laws would serve different purposes: copyright’s grant of exclusive rights in the writings of authors was intended to promote progress in science

12 See, e.g., *Fulmer v. United States*, 103 F. Supp. 1021, 1022 (Ct. Cl. 1952).

13 The bulk of authority not only in the United States, but also in Europe and Canada, supports exclusivity of copyright and utility patent law domains. See, e.g., ESTELLE DERCLAYE & MATTHIAS LEISTNER, *INTELLECTUAL PROPERTY OVERLAPS: A EUROPEAN PERSPECTIVE* 90–91, 95 (2011) (European commentary noting that overlap between copyright and utility patent “should not normally exist because of the general, universal rule excluding technical subject matter from copyright law” because it is patentable); ROBERT TOMKOWICZ, *INTELLECTUAL PROPERTY OVERLAPS: THEORY, STRATEGIES AND SOLUTIONS* 43 (2012) (noting that the UK “place[s] the barriers in patent law by express prohibition on extending patent monopoly to copyright[ed] works” and that “even the Commonwealth jurisdictions that have not yet expressly adopted the doctrine of utilitarian functionality are hostile to extending copyright protection to utilitarian objects”); Wendy J. Gordon, *How Oracle Erred: Functionality, Useful Articles, and the Future of Computer Copyright*, in *COPYRIGHT LAW IN AN AGE OF LIMITATIONS AND EXCEPTIONS* (Ruth L. Okediji ed., forthcoming 2017) (long version manuscript at 5), <http://hdl.handle.net/2144/15627> (“Copyright law defers to patent when it comes to functional use . . .”); Viva R. Moffat, *Mutant Copyrights and Backdoor Patents: The Problem of Overlapping Intellectual Property Protection*, 19 *BERKELEY TECH. L.J.* 1473, 1530–32 (2004); Pamela Samuelson, *The Story of Baker v. Selden: Sharpening the Distinction Between Authorship and Invention*, in *INTELLECTUAL PROPERTY STORIES* 159, 186–88 (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006); Gordon J. Zimmerman, *Extending the Monopoly? The Risks and Benefits of Multiple Forms of Intellectual Property Protection*, 17 *C.I.P.R.* 345, 346 (2001) (giving a Canadian perspective); McKenna & Sprigman, *supra* note 4, at 4.

14 U.S. CONST. art. I, § 8, cl. 8. For an extensive discussion of the nature and history of the IP Clause of the Constitution, see for example EDWARD C. WALTERSCHEID, *THE NATURE OF THE INTELLECTUAL PROPERTY CLAUSE: A STUDY IN HISTORICAL PERSPECTIVE* (2002).

15 U.S. CONST. art. I, § 8, cl. 8 (emphasis added).

(that is, knowledge), whereas patent law's grant of exclusive rights was intended to promote the useful arts by protecting inventive advances.¹⁶

Recognition of overlapping subject matters and protections in the copyright and utility patent domains is also inconsistent with the statutory schemes that Congress has created through its enactment of the relevant laws. In keeping with the constitutional grant, Congress has designated "original works of authorship" as the statutory subject matter of copyright law,¹⁷ and assigned functional creations—"process[es], machine[s], manufacture[s], or composition[s] of matter"—as the statutory subject matters of utility patent law.¹⁸

The starkly different contours of the copyright and utility patent regimes evidence Congress's intent not to create overlaps between copyrights and utility patents. Copyright protection, for instance, attaches automatically by operation of law to eligible works of authorship and lasts for at least seven decades (and usually decades more than that).¹⁹ Copyright requires only a modest level of originality in expression to qualify for protection,²⁰ and one need not even register claims of copyright with a government office.²¹ Utility patent protection, by contrast, can last no more than twenty years and can only be obtained by applying to the U.S. Patent & Trademark Office (USPTO) for a grant of rights and satisfying that law's much more rigorous standards.²² USPTO examiners must be persuaded that a claimed invention is novel and nonobvious, both of which are substantially higher qualitative

16 *Id.*; *see, e.g.*, H.R. REP. NO. 82-1923, at 4 (1952); S. REP. NO. 82-1979, at 3 (1952) ("The background, the balanced construction, and the usage current then and later, indicate that th[is] constitutional provision is really two provisions merged into one. The purpose of the first provision is to promote the progress of science by securing for limited times to authors the exclusive right to their writings, the word 'science' in this connection having the meaning of knowledge in general, which is one of its meanings today. The other provision is that Congress has the power to promote the progress of useful arts by securing for limited times to inventors the exclusive right to their discoveries."); *see also* Taylor Instrument Cos. v. Fawley-Brost Co., 139 F.2d 98, 99 (7th Cir. 1943) (recognizing the dual grant embedded in Article I, Section 8, Clause 8).

17 17 U.S.C. § 102(a) (2012) (setting forth copyright subject matter).

18 35 U.S.C. § 101 (2012) (setting forth patent subject matter). For further discussions of copyright and patent subject matters and the regimes these laws embody, *see* for example Buccafusco & Lemley, *supra* note 4, at 4–11; McKenna & Sprigman, *supra* note 4, at 15–18, 38–47.

19 17 U.S.C. § 102(a) ("Copyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression . . ."). Copyrighted works created by an author at age twenty-five who lives to ninety-five will be in-copyright under current law for 140 years. Corporate-authored works created since 1978 are in-copyright for ninety-five years after publication. *See id.* §§ 302–05 (setting forth duration rules).

20 *See, e.g.*, Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 346–47 (1991) (explaining copyright's originality standard requires a showing of only a modicum of creativity).

21 Although registration is not a precondition of copyright protection, U.S. authors must register claims of copyright to bring an infringement action. 17 U.S.C. § 411.

22 35 U.S.C. §§ 111, 131, 154 (setting forth patent application, examination, and duration rules, respectively).

hurdles to protectability than copyright's originality standard.²³ In addition, a patentable invention, unlike a copyrightable writing, must be "useful" (that is, functional).²⁴

Another significant distinction between these two regimes lies in the blanket protection that copyright provides to the original expression in works of authorship without requiring authors to specify the expressive elements of their works to which copyright extends.²⁵ Patent applicants, by contrast, must specifically claim elements of their inventions and disclose sufficient details to enable others to construct embodiments of them.²⁶

Also quite different are the sets of exclusive rights that the copyright and patent regimes provide to creators. Copyright law grants authors exclusive rights to control reproductions and distributions of their works, along with public performances, public displays, and the making of derivative works.²⁷ These exclusive rights are, however, subject to many exceptions and limitations, including, notably, fair use.²⁸ Patent law gives inventors exclusive rights to control *all* uses of patented inventions, as well as making, selling, and offering to sell products embodying the inventions; these rights are subject to far fewer exceptions and limitations than copyright law provides.²⁹ One important implication of patent law's broad use right is that it treats independent creators as infringers,³⁰ whereas copyright law regards the inde-

23 *Id.* §§ 101–03 (requiring inventions be novel and nonobvious to be patentable); *see, e.g.,* *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 59 (1884) (contrasting copyright's originality standard with patent law's novelty and nonobviousness standards).

24 *Id.* § 101 (requiring that inventions be "useful" to be patentable). In a recent paper, Professors McKenna and Sprigman "highlight the lack of a coherent theoretical account of the domain of utility patent law and the resulting problems of operationalizing a utility patent supremacy principle, where other branches of IP are attempting to render unto utility patent what is utility patent's." McKenna & Sprigman, *supra* note 4, at 4. McKenna and Sprigman also criticize courts' failure to articulate a meaningful utility standard, *id.* at 15–16, but suggest that there may be some judicial convergence toward recognizing that technology is at the core of utility patent subject matter, *id.* at 24.

25 Some commentators have recently argued for more rigorous review of copyright, as well as other IP, boundaries. *See, e.g.,* Jeanne C. Fromer, *Claiming Intellectual Property*, 76 U. CHI. L. REV. 719 (2009); Mark A. Lemley & Mark P. McKenna, *Scope*, 57 WM. & MARY L. REV. 2197 (2016); Zahr K. Said, *Reforming Copyright Interpretation*, 28 HARV. J.L. & TECH. 469 (2015).

26 35 U.S.C. §§ 111–12.

27 17 U.S.C. § 106 (2012). Patent law is more generous than copyright law, however, as to second-comer improvements. Those who develop improvements of technologies can patent those improvements, 35 U.S.C. § 101, whereas an author-improver may run afoul of the derivative work right, 17 U.S.C. § 106(2). *See, e.g.,* Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989 (1997).

28 *See* 17 U.S.C. §§ 107–22.

29 35 U.S.C. § 271(a).

30 *See, e.g.,* Samson Vermont, *Independent Invention as a Defense to Patent Infringement*, 105 MICH. L. REV. 475 (2006) (arguing for an independent creation defense to patent infringement, but recognizing that it has not been accepted as a defense).

pendent creation of the same or substantially similar works as perfectly lawful.³¹

The remedies available for infringements are also substantially different. Prevailing copyright plaintiffs may be awarded a disgorgement of the defendant's profits, plus actual damages (e.g., a reasonable royalty).³² Prevailing utility patentees may be awarded reasonable royalties, but not profits disgorgements.³³ Copyright owners also have the option, as an alternative to actual damages and profits disgorgement, to claim statutory damages of up to \$150,000 per infringed work.³⁴ Patent law provides no comparable remedy. Moreover, those who infringe copyrights may be subject to criminal prosecution if the infringement is willful and for commercial advantage or private financial gain.³⁵ There is no criminal liability for infringing a patent under U.S. law.

The remedial advantages of copyright law, as well as its much longer duration, help to explain why some creators might want to assert both copyright and utility patent protections in the same creation.³⁶ They may also want to claim copyright protection in utility-patent-eligible but unpatented functional designs.

Section I.A discusses why these considerations have led some courts to regard copyright and utility patent subject matters as categorically exclusive. Under this approach, an intellectual creation is understood to be eligible for copyright or utility patent protection, but not for both. Section I.B reviews and criticizes the Nimmer treatise's endorsement of overlapping copyright and utility patent subject matters and protections. Section I.C recognizes that the Supreme Court has been sometimes unreceptive to categorical exclusivity arguments in IP cases. There are, however, several policy considerations that courts should take into account when trying to discern the proper boundaries of copyright and utility patent protections as to subject

31 See, e.g., Abraham Drassinower, *Authorship as Public Address: On the Specificity of Copyright Vis-à-Vis Patent and Trade-Mark*, 2008 MICH. ST. L. REV. 199 (contrasting copyright and patent law as to independent creation).

32 17 U.S.C. § 504(a)–(b).

33 See Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 655 (2009).

34 17 U.S.C. § 504(c) (requiring courts to impose a minimum statutory damage of \$750 per infringed work and up to \$150,000 for willful infringements if plaintiffs opt for this remedy). Eligibility for statutory damages depends on prompt registration of claims with the Copyright Office. *Id.* § 412; see, e.g., Andrew P. Bridges, *Navigating the Interface Between Utility Patents and Copyrights*, in *OVERLAPPING INTELLECTUAL PROPERTY RIGHTS* §§ 1.72–.80 (Neil Wilkof & Shamnad Basheer eds., 2012) (discussing the remedial advantages of copyright). Successful copyright plaintiffs are more likely than prevailing patentees to be awarded reasonable attorneys' fees as well. *Id.*

35 See 17 U.S.C. § 506(a) (defining criminal copyright offenses); 18 U.S.C. § 2319 (2012) (setting forth misdemeanor and felony penalties).

36 It is, for example, easier to stop imports of products that infringe copyrights than to get an order to stop importation of products that infringe patents. See *infra* note 177 and accompanying text.

matters, such as computer programs, that do not fit neatly into either the copyright or utility patent domains.

A. *Baker v. Selden and the Birth of the Categorical Exclusivity Approach*

Courts have long recognized that creators might be tempted to bypass the rigorous requirements for patenting if they could more easily and cheaply get much longer-lasting exclusive rights in their innovative products by asserting copyright in them.³⁷ The Supreme Court's venerable 1879 decision in *Baker v. Selden* was the first and is still the most vivid judicial explication of the notion that copyright and utility patent are mutually exclusive forms of IP protections for intellectual creations.³⁸ The influence of *Baker* on copyrightability and scope of protection issues has been deep and long-lasting.³⁹

Selden claimed copyright not only in his book, *Selden's Condensed Ledger, or Bookkeeping Simplified*, but also in the bookkeeping system depicted therein.⁴⁰ Selden's novel system was instantiated in the forms published in his book. W.C.M. Baker published a book containing forms that Selden's widow alleged were substantially similar to and copied from those in Selden's book.⁴¹ Baker appealed a lower court decision in Selden's favor to the U.S. Supreme Court.

Owing in no small part to Selden's acknowledgement in the preface of his book that he had sought, but apparently not obtained, a patent on that

37 See, e.g., *Davis v. Comitti*, (1885) 52 L.T. 539, 540 (Ch.) (Eng.) ("It would be strange if the inventor, who, by means of a patent could obtain a monopoly for his invention for the term of fourteen years, was enabled to obtain a distinct right of copyright for a period of at least forty-two years for the letterpress on the dial, or some other essential part of his invention, and thus, after the expiration of the period for which his patent was granted, be in a position to restrain the serviceable user of some letterpress which formed an essential part of his invention. In my opinion the statutes do not lead to any such anomaly."). More recent decisions have recognized this risk as well. See, e.g., *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1526 (9th Cir. 1992) ("[T]o enjoy a lawful monopoly over the idea or functional principle [such as a computer program interface] underlying a work, the creator of the [copyrighted] work must satisfy the more stringent standards imposed by the patent laws.").

38 *Baker*, 101 U.S. at 102–03; see also *Comitti*, 52 L.T. at 540 (rejecting a claim of copyright in a barometer face because it was more properly patent subject matter and distinguishing copyright and patent subject matter); *Clarke v. Cocks*, discussed *infra* note 143 and accompanying text.

39 See, e.g., Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921 (2007) (explaining the Court's ruling in *Baker* and tracing its influence on later copyright cases).

40 For a discussion of the allegations in Selden's complaint and how the Court responded to it, see Samuelson, *supra* note 13, at 163.

41 *Baker*, 101 U.S. at 100–01. Examples of Baker's and Selden's forms can be found in Samuelson, *supra* note 13, at 170–71.

bookkeeping system,⁴² the Court reversed and ruled in Baker's favor.⁴³ The Court acknowledged that if Selden

had the exclusive right to the use of the system explained in his book, it would be difficult to contend that the defendant does not infringe it, . . . but if it be assumed that the system is open to public use, it seems to be equally difficult to contend that the books made and sold by the defendant are a violation of the copyright of the complainant's book considered merely as a book explanatory of the system.⁴⁴

In elucidating why Selden's copyright did not extend that far, the Court observed that "no one would contend that the copyright" in a "treatise on the composition and use of medicines, be they old or new; on the construction and use of ploughs, or watches, or churns; or on the mixture and application of colors for painting or dyeing; or on the mode of drawing lines to produce the effect of perspective" would confer on the treatise's author "the exclusive right to the art or manufacture described therein."⁴⁵ The copyright in such a treatise would, of course, be valid, but its scope would extend only to the author's explanation of the useful art or manufacture, not to the useful art itself.⁴⁶ The Court regarded Selden's claim of copyright in the bookkeeping system to be contrary to this well-established norm.

The Court recognized that the plausibility of Selden's claim arose from the "peculiar nature of the art" in his book.⁴⁷ Useful arts were usually embodied in "wood, metal, stone, or some other physical embodiment," not in books.⁴⁸ "But the principle is the same in all."⁴⁹ The description of a useful art in a book "lays no foundation for an exclusive claim to the art

42 For a discussion of the significance of Selden's application for a patent on the bookkeeping system, see Samuelson, *supra* note 13, at 173–88.

43 *Baker*, 101 U.S. at 107.

44 *Id.* at 100.

45 *Id.* at 102.

46 *Id.* at 103–04. In view of the Court's analysis of Selden's claim, *Baker* should be understood as a segmentation or layering case. See *infra* Section IIA.

47 *Baker*, 101 U.S. at 104.

48 *Id.* at 105. *Guthrie v. Curlett* is a post-*Baker* case in which a creator claimed both utility patent and copyright protection in a consolidated freight index. Guthrie's first lawsuit against Curlett charged him with infringing a patent on a novel method of compressing information about freight tariffs to make the data more comprehensible. The Second Circuit struck down the patent for claiming unpatentable subject matter. *Guthrie v. Curlett*, 10 F.2d 725, 727 (2d Cir. 1926). After that suit failed, Guthrie sued Curlett to enforce copyright in his book, arguing that Curlett had copied its contents. The Second Circuit denied this claim as well, ruling that the freight index was uncopyrightable because the arrangement was inevitable and methodical in character. See *Guthrie v. Curlett*, 36 F.2d 694, 695–96 (2d Cir. 1929). The copyright decision does not mention the earlier patent decision.

49 *Baker*, 101 U.S. at 104–05 ("In describing the [useful] art, the illustrations and diagrams employed [by Selden] happen to correspond more closely than usual with the actual work performed by the operator who uses the art. Those illustrations and diagrams consist of ruled lines and headings of accounts . . . which, in the application of the art, the book-keeper makes with his pen . . .").

itself,” which “can only be secured, if it can be secured at all, by letters-patent.”⁵⁰ To obtain an exclusive right to control the practice of a useful art requires an application for a patent and a willingness to have the inventor’s claims of novelty subjected to examination.⁵¹ “To give to the author of the book an exclusive property in the [useful] art described therein, when no examination of its novelty has ever been officially made, would be a surprise and a fraud upon the public.”⁵² Indeed, by publishing a book on a useful art, without getting a patent, its author dedicates that useful art to the public domain.⁵³ Thus, owing to the lack of an issued utility patent, Selden’s book-keeping system, once revealed in his published book, was in the public domain.

The Seventh Circuit heeded *Baker’s* directive on copyright/utility patent exclusivity in *Taylor Instrument Co. v. Fawley-Brost Co.*⁵⁴ Taylor manufactured temperature recording machines, whose elements included a thermometer, a writing stylus, a mechanism for advancing the stylus in response to changes in temperature, and charts with lines and arcs on which the stylus recorded the temperature.⁵⁵ Taylor registered its claim of copyright in hundreds of charts for its machines and put copyright notices on the copies sold to the public.⁵⁶ Fawley-Brost produced identical charts and offered them as competitive alternatives to the Taylor charts. This prompted Taylor to sue Fawley-Brost for infringement.⁵⁷ The lower court upheld Taylor’s claim and enjoined Fawley-Brost from manufacturing infringing charts.⁵⁸ The Seventh Circuit reversed.

The appellate court began its *Taylor* opinion by reciting Article I, Section 8, Clause 8 of the U.S. Constitution and observing that Congress had exercised the power granted by this clause by enacting copyright laws to protect the writings of authors and by enacting patent laws to protect the discoveries of inventors.⁵⁹ It then noted:

50 *Id.* at 105. The Court could have reinforced its categorical approach to the separateness of the copyright and patent domains by pointing to the word “respective” in the constitutional clause, which authorizes Congress to grant exclusive rights to authors and inventors in “their respective Writings and Discoveries.” U.S. CONST. art. I, § 8, cl. 8.

51 *Baker*, 101 U.S. at 102.

52 *Id.*

53 *Id.* at 103.

54 139 F.2d 98 (7th Cir. 1943).

55 *Id.* at 99.

56 *Id.*

57 *Id.* at 98–99. Fawley-Brost also copied the numbers that Taylor had assigned to each form so that consumers would know which chart to use with which Taylor machine. *Id.* *Taylor* was thus a pre-software interoperability case. It also presaged later cases claiming copyright in numbering systems for uncopyrightable products. See, e.g., *ATC Distrib. Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700 (6th Cir. 2005) (rejecting a copyright claim in a hardware part name and numbering system).

58 *Taylor*, 139 F.2d at 98–99. This would seem to be an example of the exclusion type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

59 *Taylor*, 139 F.2d at 99.

While it may be difficult to determine in which field protection must be sought, it is plain, so we think, that it must be in one or the other; it cannot be found in both. In other words, there is no overlapping territory, even though the line of separation may in some instances be difficult of exact ascertainment.⁶⁰

After quoting *Baker* at some length and citing to several of its progeny,⁶¹ the Seventh Circuit concluded that the chart at issue “neither teaches nor explains the use of the art. It is an essential element of the machine; it is the art itself.”⁶² The court took note of twenty-five patents on temperature recording devices with charts that Fawley-Brost introduced into evidence to demonstrate that such charts were patent, not copyright, subject matter.⁶³

Although Taylor sought to distinguish his charts from those patents, the Seventh Circuit perceived that by making changes to its machines and the accompanying charts, Taylor had “produced the intolerable situation that plaintiff may extend indefinitely the fifty-six years of protection afforded by the copyright laws.”⁶⁴ Taylor’s charts having long ago lost their patentable status, its copyright claims could not prevail.⁶⁵ Thus was Fawley-Brost’s categorical exclusivity defense vindicated.

B. *Commentary Endorsing Overlaps in Copyright and Utility Patent Protections*

The authors of two treatises on American copyright law have endorsed the possibility of overlap between copyright and utility patent protections in contravention to the teachings of *Baker* and *Taylor*. The first was the early twentieth-century Weil treatise:

60 *Id.*

61 *Id.* at 99–100. Among the *Baker* progeny cited positively in *Taylor* were *Brief English Sys., Inc. v. Owen*, 48 F.2d 555, 556 (2d Cir. 1931) (holding that a shorthand system was not copyright-protectable); *Amberg File & Index Co. v. Shea Smith & Co.*, 82 F. 314, 315 (7th Cir. 1897) (holding that a file system was not copyright-protectable); and *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298, 299–300 (S.D.N.Y. 1942) (holding that a bridge-approach design was not copyright-protectable).

62 *Taylor*, 139 F.2d at 100; *see also* *Brown Instrument Co. v. Warner*, 161 F.2d 910 (D.C. Cir. 1947) (approving *Taylor* and upholding decision to refuse registration to patentable recording charts); *see also* *infra* Section II.D (discussing the Office’s denial of registration to genetically engineered DNA sequences based in part on the patentability of these sequences).

63 Fawley-Brost’s strategy of bringing forth issued patents as evidence that copyright should not be recognized in some subject matters is consistent with the approach discussed *infra* Section II.E.

64 *Taylor*, 139 F.2d at 101; *see also* *Brown*, 161 F.2d at 911 (“Both law and policy forbid monopolizing a machine except within the comparatively narrow limits of the patent system.”).

65 Taylor also lost on its trademark claims. The Seventh Circuit recognized that Fawley-Brost had printed a “T” along with relevant numbers on its charts to indicate to consumers in which Taylor machines the Fawley-Brost charts would work, saying “the use of the letter was to show destination rather than origin of the chart.” *Taylor*, 139 F.2d at 101.

While in doubtful cases the Courts will hold that, presumptively, the fact that a given work is patentable is ground for holding it is not copyrightable, and *vice versa*, it seems that there is no rule of law nor is there any consideration of public policy which will prevent the issuance of both a copyright and a patent to cover the same work, in its different aspects, in a proper case.⁶⁶

Weil offered this hypothetical in support of this proposition:

A novel household utensil may be modeled by a great sculptor. Its form may be artistic in the highest degree; its machinery may show the qualities necessary to patentability; its use may be purely utilitarian and it may be so constructed as to be one inseparable unit. In such event it should be both copyrightable and patentable.⁶⁷

The only source Weil cited in support of this theory of copyright/patent overlap was *Louis De Jonge & Co. v. Breuker & Kessler Co.*⁶⁸ That case did not involve a claim of copyright in a design that was eligible for a utility patent, as Weil implied. Rather, the claim was that Breuker & Kessler (B&K) infringed De Jonge's copyright in a pictorial design of sprigs of holly, mistletoe, and spruce that had initially been embodied in a painting. The Court simply noted that design patent protection might have been available for De Jonge's design for wrapping paper, although the company had not sought such protection. De Jonge's claim for copyright infringement against B&K failed because it had elected to claim copyright protection in the design, and then failed to place copyright notices on all copies of the wrapping paper, as that law required.⁶⁹ The *De Jonge* decision is far from a ringing endorsement of the overlap of copyright and utility patent protections that Weil intimated.

66 ARTHUR W. WEIL, AMERICAN COPYRIGHT LAW § 205, at 84 (1917). The Supreme Court's *Baker* decision provided both legal and policy reasons why copyright and utility patent protections should not overlap. Even though Weil endorsed overlapping copyright and patent protection, he nevertheless contemplated that these two laws would protect "different aspects" of the design. *Id.* Weil also distinguished the roles of copyright and utility patent law when imagining a future in which "talking machines" might enable the development of read-aloud books. The literary content of the talking books would be protectable by copyright law, while the mechanical parts would be protectable by utility patent law. *Id.*

67 *Id.* § 205, at 84–85. By emphasizing the "purely utilitarian" nature of the hypothetical utensil, Weil was implicitly conceptualizing this tool as utility patent subject matter, not as design patent subject matter. Under the 1976 Act, Weil's hypothetical utensil would almost certainly be uncopyrightable insofar as its aesthetic and utilitarian design elements were "inseparable." *See, e.g., Inhale, Inc. v. Starbuzz Tobacco, Inc.*, 755 F.3d 1038, 1042 (9th Cir. 2014) ("Although Inhale's [hookah pipe] water container, like a piece of modern sculpture, has a distinctive shape, '[t]he shape of the alleged "artistic features" and of the useful article are one and the same.'" (second alteration in original) (quoting U.S. COPYRIGHT OFFICE, COMPENDIUM II: COMPENDIUM OF COPYRIGHT OFFICE PRACTICES § 505.03 (1984))); *Bonazoli v. R.S.V.P. Int'l, Inc.*, 353 F. Supp. 2d 218, 228 (D.R.I. 2005) (finding heart-shaped measuring spoons to be uncopyrightable because their aesthetic features were inseparable from their functionality); *see also infra* Section II.C.

68 182 F. 150 (E.D. Pa. 1910), *aff'd*, 191 F. 35 (3d Cir. 1911), *aff'd*, 235 U.S. 33 (1914); *see also* WEIL, *supra* note 66, at 85 n.98.

69 *De Jonge*, 235 U.S. at 35–36.

Like the Weil treatise before it, the Nimmer treatise has, for the past fifty-some years, asserted that copyright and utility patent law can provide overlapping protections to intellectual creations.⁷⁰ Although noting that this overlap was “most apparent” as to copyrights and design patents,⁷¹ the Nimmer treatise asserted that the principle was more broadly applicable: “The Supreme Court has held that a work such as a work of art may be eligible for either copyright or patent protection, and other courts both prior and subsequent to the Supreme Court’s decision have similarly held, although one older decision is to the contrary.”⁷²

The Supreme Court decision to which the treatise referred was *Mazer v. Stein*.⁷³ The Court in *Mazer* upheld Stein’s claim of copyright in a Balinese dancer statuette as a work of art,⁷⁴ even though that design was also eligible for design patent protection as an ornamental design for an article of manufacture,⁷⁵ namely, as a base for lamps. Reading *Baker* broadly, Mazer argued that Stein should be able to get exclusive rights to manufacture lamps embodying that design only by obtaining a design patent, and Stein’s failure to patent that design meant it was in the public domain.⁷⁶ The Court rejected Mazer’s categorical exclusivity argument, saying: “Neither the Copyright Statute nor any other says that because a thing is patentable it may not be copyrighted. We should not so hold.”⁷⁷

Three of the four cases the treatise cited in support of overlapping copyright and utility patent protections were, like *Mazer*, decisions in which courts

70 MELVILLE B. NIMMER, *THE LAW OF COPYRIGHT* § 38, at 162 (1963). The title of that section is “Copyrightability for Patentable Works.”

71 *Id.* Commentators disagree about how much overlap exists in copyright and design patent subject matters. Some regard the design patent/copyright overlap as very substantial. See, e.g., Justin Hughes, *Cognitive and Aesthetic Functionality in Trademark Law*, 36 CARDOZO L. REV. 1227, 1269 (2015) (“[D]ouble protection is arguably the norm . . .”). Others take a narrower view of this overlap because copyright law’s useful article doctrine excludes from protection many designs that have both functional and expressive elements. See, e.g., Moffat, *supra* note 5, at 611–12. For a discussion of useful article copyright issues, see generally Robert C. Denicola, *Applied Art and Industrial Design: A Suggested Approach to Copyright in Useful Articles*, 67 MINN. L. REV. 707 (1983); J.H. Reichman, *Design Protection in Domestic and Foreign Copyright Law: From the Berne Revision of 1948 to the Copyright Act of 1976*, 1983 DUKE L.J. 1143.

72 NIMMER, *supra* note 70, at 162–63 (footnotes omitted). The most recent edition of the Nimmer treatise includes this same statement and relies on the same cases as the 1963 edition. NIMMER & NIMMER, *supra* note 11, § 2A.07[A]. Although its treatment of *Baker* has been revised, the treatise continues to assert that patentable works can be copyrighted. *Id.* § 2A.07[A]–[B]. The Nimmer treatise thus seems not to accept the principle that utility patents should regulate functional designs, as articulated in McKenna & Sprigman, *supra* note 4, and endorsed in cases such as *Baker* and *Taylor*.

73 *Mazer v. Stein*, 347 U.S. 201 (1954).

74 *Id.* at 217.

75 35 U.S.C. § 171 (2012) (identifying “new, original and ornamental design for an article of manufacture” as design patent subject matter).

76 *Mazer*, 347 U.S. at 215–16.

77 *Id.* at 217.

acknowledged that the designs at issue might have been eligible for both copyright and design patent protections, although in none of these cases was the design concurrently protected by both laws.⁷⁸ The fourth of these cases did not have a similar holding to *Mazer*, instead denying trademark protection to a table deck design because of its functionality.⁷⁹ None of these cases had anything to say about possible overlaps of copyright and utility patent protections.

The “older” case to which the treatise referred was *Taylor*.⁸⁰ That decision had, as shown earlier, followed *Baker* by rejecting claims of copyright in temperature recording charts because they were essential parts of machines and similar to charts that had been covered by utility patents.⁸¹ By characterizing *Taylor* as an “older” case and implying that it was the only case to have rejected copyright/patent overlaps, as well as by citing to *Mazer* and characterizing four other cases as having upheld copyright/patent overlaps, the treatise implied that *Taylor* was no longer good law.

Taylor was not, however, the only such decision. A few years before *Mazer* and after *Taylor*, the D.C. Circuit invoked both *Taylor* and *Baker* in upholding the Copyright Office’s refusal to register copyrights in patentable recording charts in *Brown Instrument Co. v. Warner*.⁸² As the D.C. Circuit explained:

78 The pre-*Mazer* cases cited by the Nimmer treatise as having held similarly to *Mazer* were *William A. Meier Glass Co. v. Anchor Hocking Glass Corp.*, 95 F. Supp. 264 (W.D. Pa. 1951) (holding that the plaintiff’s failure to acquire either a design patent or copyright protection meant that the glassware design was in the public domain); and *Jones Bros. Co. v. Underkoffler*, 16 F. Supp. 729 (M.D. Pa. 1936) (rejecting the defendant’s argument that the plaintiff’s monumental headstone was unprotectable by copyright law because it could have been design-patented). NIMMER, *supra* note 70, at 163 n.742. A post-*Mazer* case cited by the treatise was *Vacheron & Constantin-Le Coultre Watches, Inc. v. Benrus Watch Co.*, 260 F.2d 637 (2d Cir. 1958) (affirming a lower court judgment that the defendant had infringed a design patent, but deferring to the Copyright Office’s decision not to register plaintiff’s watch face design as work of art), cited in NIMMER, *supra* note 70, at 163 n.743. There is nothing in those opinions to suggest that any of the designs at issue would have been eligible for utility patent protection.

79 See *In re Deister Concentrator Co.*, 289 F.2d 496 (C.C.P.A. 1961); NIMMER, *supra* note 70, at 163 n.743 (citing *Deister*). *Deister* did refer to *Mazer* in a footnote as having accepted that design patent and copyright could have overlapping subject matters. *Deister*, 289 F.2d at 500 n.2. By rejecting a claim of trademark protection for a table design because of its functionality, the holding in *Deister* was closer in spirit to *Baker* than to *Mazer*.

80 *Taylor Instrument Co. v. Fawley-Brost Co.*, 139 F.2d 98 (7th Cir. 1943); see NIMMER, *supra* note 70, at 163 n.744 (citing *Taylor*).

81 See *supra* notes 54–65 and accompanying text.

82 161 F.2d 910 (D.C. Cir. 1947). The D.C. Circuit said *Baker* “controlled” the outcome in *Brown* because both cases involved forms designed to record information. *Id.* at 911. In its decision, the *Brown* court noted the district court’s finding that

[t]he 83 charts in suit function as working mechanical elements of and essential parts of recording machines manufactured by plaintiff. . . . The printed matter on the 83 charts in suit constitutes blank graph paper ruled according to the mechanical characteristics of the particular machines in which each is intended to be used. . . . The charts in suit were based upon mathematical or scientific

Both law and policy forbid monopolizing a machine except within the comparatively narrow limits of the patent system. In several patents on recording machines, the necessary printed chart is rightly claimed as one of the operative elements. Since the machines which cooperate with the charts in suit are useless without them, to copyright the charts would in effect continue appellant's monopoly of its machines beyond the time authorized by the patent law.⁸³

The charts were consequently uncopyrightable, and the Copyright Office had properly rejected Brown's registration application.

More significant than the Nimmer treatise's failure to recognize *Brown* was its failure to acknowledge that the Supreme Court in *Mazer* had cited approvingly to both *Taylor* and *Brown*. Indeed, the Court distinguished the rulings in *Taylor* and *Brown* from the claims in *Mazer* on the ground that those decisions had held that "the Mechanical Patent Law and Copyright Laws are *mutually exclusive*,"⁸⁴ a proposition in which the Court apparently concurred. In view of this, *Mazer* should be understood as a fourth appellate court decision, along with *Baker*, *Taylor*, and *Brown*, that has conceptualized copyright and utility patents as separate IP domains.⁸⁵

The Court in *Mazer* also contrasted *Taylor* and *Brown* with the *De Jonge* case in which the Court had previously acknowledged some overlap in the subject matters of copyright and *design* patent laws.⁸⁶ *Mazer* and *De Jonge* may have accepted the existence of some overlap in the categories of ornamental designs for manufactured products and works of art. However, the *Baker-Taylor-Brown-Mazer* quartet of appellate court decisions have treated the subject matters of copyright and utility patent laws as nonoverlapping. The Nimmer treatise also ignored *Mazer's* approving citation to two other *Baker*-inspired precedents whose holdings were predicated on the mutual exclusiv-

calculations, but their object is for use as parts of the plaintiff's machines and not for the purpose of giving information. . . . Plaintiff has failed to establish that its charts are 'writings of an author' or 'drawings' within the meaning of the Constitution and the copyright statute, or that said charts convey or are capable of conveying the thought of an author.

Id. at 910–11.

83 *Id.* at 911. This is an example of the exclusion type of functionality screen described in Buccafusco & Lemley, *supra* note 4, at 3.

84 *Mazer v. Stein*, 347 U.S. 201, 215 n.33 (1954) (emphasis added). The Copyright Office brief to the Supreme Court in *Mazer* likewise distinguished *Taylor* and *Brown* as cases holding that utility patent and copyright were mutually exclusive. See Brief for the Register of Copyrights as Amicus Curiae Supporting Respondents at 46 n.19, *Mazer*, 347 U.S. 201 (No. 228) [hereinafter Copyright Office Brief].

85 The 2016 version of the Nimmer treatise now says that there may be "some merit" in *Taylor's* rejection of overlapping copyright and utility patent protections. Yet, in seeming contradiction to this proposition, it continues to assert that copyright and utility patent protections can overlap. See NIMMER & NIMMER, *supra* note 11, §§ 2A.05[A][1][e], 2A.05[B][2], 2A.07[A]. The revised treatise does acknowledge that some intellectual creations, such as mechanical devices, are more suitable for utility patent than copyright protections. *Id.* § 2A.12 (citing cases).

86 *Mazer*, 347 U.S. at 215 n.33.

ity of copyright and utility patent subject matters.⁸⁷ Both cases, like *Taylor* and *Brown*, explicitly traced the basis for their copyright/utility patent exclusivity holdings to *Baker*.⁸⁸

The Nimmer treatise characterized as “more difficult” the question of whether creators should have to elect one form of protection or could have both at the same time.⁸⁹ It noted that the Supreme Court in *Mazer* had raised, but decided not to answer, that question.⁹⁰ Although the treatise indicated that *Mazer* had cited to several cases on the election theory, it neglected to mention that all of them had endorsed an election of protection as between copyright and design patent protection.⁹¹ The treatise identified only one case, *Korzybski v. Underwood & Underwood, Inc.*,⁹² as having required an election of copyright or patent protection, a ruling the treatise characterized as “questionable.”⁹³ In Nimmer’s view, obtaining a utility patent should not divest a creator of copyright protection. All that should be necessary to maintain copyright on patented products was to put a copyright notice on the work.⁹⁴

87 *Id.* at 217 n.39 (citing *Fulmer v. United States*, 103 F. Supp. 1021, 1021–22 (Ct. Cl. 1952) (holding that Fulmer could only get exclusive rights for his parachute design by obtaining a utility patent; a copyright in drawings of the design did not give him exclusive rights to control the manufacture of parachutes embodying the design); and then citing *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298, 299–300 (S.D.N.Y. 1942) (holding that Muller could only get exclusive rights to control the manufacture of a bridge-approach design if he got a patent; he could not get such rights through his copyright in drawings)). The Copyright Office brief also cited approvingly to *Fulmer* and *Muller*. Copyright Office Brief, *supra* note 84, at 36; *see also* *Modern Aids, Inc. v. R.H. Macy & Co.*, 264 F.2d 93, 94 (2d Cir. 1959) (per curiam) (holding that copying a picture of a mechanical massage machine in an ad infringed, but that the defendant was free to copy and sell the same unpatented machine in competition with the plaintiff); *Nat’l Med. Care, Inc. v. Espiritu*, 284 F. Supp. 2d 424, 435–38 (S.D. W. Va. 2003) (finding a copyright in a technical drawing was not infringed by the construction of a similar cabinet for a dialysis center); *Seip v. Commonwealth Plastics, Inc.* 85 F. Supp. 741, 741–42 (D. Mass. 1949) (holding that manufacture of a toy whistle, which the defendant had patented, did not infringe copyright in the plaintiff’s drawing).

88 *Fulmer*, 103 F. Supp. at 1022; *Muller*, 43 F. Supp. at 299–300.

89 NIMMER, *supra* note 70, at 163.

90 *See id.*; *see also* *Mazer*, 347 U.S. at 217.

91 *Id.* at 217 n.37. The cases were *Louis De Jonge & Co. v. Breuker & Kessler Co.*, 235 U.S. 33, 36 (1914); *Korzybski v. Underwood & Underwood, Inc.*, 36 F.2d 727 (2d Cir. 1929); *In re Blood*, 23 F.2d 772 (D.C. Cir. 1927); *Jones Bros. Co. v. Underkoffler*, 16 F. Supp. 729, 731 (M.D. Pa. 1936). The Court also provided a *cf.* cite to *Taylor* on the election of protection issue. The Copyright Office amicus brief in *Mazer* also endorsed requiring election of copyright or design patent protection and rejected the availability of overlapping protections. *See* Copyright Office Brief, *supra* note 84, at 36.

92 36 F.2d 727 (2d Cir. 1929).

93 NIMMER, *supra* note 70, at 163 & n.746. *Korzybski* is discussed *infra* Section II.B.

94 NIMMER, *supra* note 70, at 163. Prior to 1989, the failure to put copyright notices on published copies of protected works resulted in dedication of the works to the public domain. *See infra* note 98 for current Copyright Office policy on this issue.

In an effort to further undermine the election of protection theory, the Nimmer treatise dropped a footnote saying that the Second Circuit's decision in *Vacheron & Constantin-Le Coultre Watches, Inc. v. Benrus Watch Co.* had "suggested" that *Korzybski* was no longer valid law.⁹⁵ A careful reading of the *Vacheron* decision, however, reveals that the court merely said that it was unnecessary to address whether the watchmaker had to make an election of copyright or design patent protection because the Copyright Office had refused to register *Vacheron's* claim of copyright in its watch design.⁹⁶

The treatise also criticized the Copyright Office for its refusal to register claims in designs that had been design-patented, saying that there was "no statutory or other justification" for the policy.⁹⁷ The Copyright Office policy was, however, longstanding and based on several appellate court decisions that had applied or endorsed the election of a design patent or copyright protections requirement.⁹⁸ The public policy ground on which the Office relied was "based on the theory that it is an undue extension of the patent monopoly to allow, after the patent has expired, a copyright for the same design."⁹⁹ Extending a design patent monopoly by tacking onto it the much longer term of copyrights would prevent the public from exploiting a design that, as a matter of design patent law, should be in the public domain.¹⁰⁰

The Nimmer treatise also viewed the Copyright Office regulations as being contrary to the "teachings" of the *Vacheron* decision, which it said had "suggest[ed]" that if a patent on a design was invalidated, copyright should

95 NIMMER, *supra* note 70, at 163 & n.747 (citing *Vacheron & Constantin-Le Coultre Watches, Inc. v. Benrus Watch Co.*, 260 F.2d 637 (2d Cir. 1958)). The treatise did not explain why Nimmer thought that *Vacheron* called the holding in *Korzybski* into question, and indeed, it did not do so.

96 *Vacheron*, 260 F.2d at 642.

97 NIMMER, *supra* note 70, at 163–64.

98 See Registrability of Pictorial, Graphic, or Sculptural Works Where a Design Patent Has Been Issued, 60 Fed. Reg. 15,605, 15,606 (Mar. 24, 1995) (citing to *De Jonge* and other election of protection cases). The Office maintained this policy for several decades in reliance on *Korzybski*. *Id.* The Office changed the policy in 1995. *Id.*

99 *Id.* Similarly, during the copyright law revision process leading to the Copyright Act of 1976, the Department of Justice opposed, on policy grounds, a section of the proposed legislation that would have created a short, copyright-like form of protection for original designs of useful articles. See H.R. REP. NO. 94-1476, at 49–50 (noting the Justice Department's testimony that the proposed legislation "would create a new monopoly which has not been justified by a showing that its benefits will outweigh the disadvantages of removing such designs from free public use").

100 When the Office finally discontinued its election of design patent or copyright protection registration policy in 1995, 60 Fed. Reg. at 15,606, it quoted from the 1994 edition of the Nimmer treatise in the very same words as published in the 1963 treatise, *id.* The first appellate court decision to uphold dual protection for the same design under both copyright and design patent laws was *In re Yardley*, 493 F.2d 1389 (C.C.P.A. 1974), which held that a design patent could issue for a copyrighted design for an ornamental design of a watch face. The Office persisted in its election of protection policy for more than twenty years after *Yardley*. For a criticism of *Yardley*, see for example Michael J. Kline, *Requiring an Election of Protection for Patentable/Copyrightable Computer Programs*, 6 COMPUTER L.J. 607, 621–25 (1986).

still be available.¹⁰¹ This is not even close to what the Second Circuit in the *Vacheron* decision said. It merely decided that the Copyright Office had not erred in denying a watchmaker a chance to register his claim of copyright protection in the face of one of its watches.¹⁰² The court made no such “suggest[ion].”

In support of its assertion that copyright could subsist in a design for which utility patent protection had expired, the treatise cited to *Barton Candy Corp. v. Tell Chocolate Novelties Corp.* as having “suggest[ed]” this result.¹⁰³ The treatise starkly mischaracterized both the holding and dictum in *Barton*. The holding was that Tell did not infringe Barton’s copyright because its greeting cards featured “totally different expression[s]” in its pictorial designs as compared with those on Barton’s cards.¹⁰⁴ The court mentioned that the shape and form of the container for inserting chocolate bars into greeting cards had once been the subject of a utility patent, although the court made clear that Barton’s copyright did not extend to this aspect of its greeting card.¹⁰⁵ Properly interpreted, *Barton* does not support the treatise’s assertion that copyright protection is available for the subject matter of an expired utility patent; indeed, it should be understood as rejecting that very proposition.¹⁰⁶

Until 2016, the Nimmer treatise featured an extensive critique of the *Baker* decision.¹⁰⁷ Prior versions of the treatise characterized the ruling in *Baker* as justified because Baker’s forms “substantially differed” from Selden’s and hence were noninfringing,¹⁰⁸ even though the Court in *Baker* said that Baker’s forms were similar enough to Selden’s that if Selden was right that the copyright in his book extended to his bookkeeping system, Baker would

101 NIMMER, *supra* note 70, at 164 & n.751 (citing *Vacheron*, 260 F.2d 637).

102 *Vacheron*, 260 F.2d at 642. The court in *Vacheron* upheld a finding of design patent infringement.

103 178 F. Supp. 577 (E.D.N.Y. 1959); see NIMMER, *supra* note 70, at 164 n.750 (citing *Barton*); see also *infra* notes 184–97 and accompanying text for a discussion of a creator who had some success in asserting copyright in the subject matter of an expired utility patent.

104 *Barton*, 178 F. Supp. at 581–82.

105 *Id.* The expired patent was mentioned. *Id.* at 581 n.3. The court noted that the form and shape of Barton’s container was not protected by copyright or patent. *Id.* at 581.

106 The 2016 version of the Nimmer treatise continues to cite to *Barton* for the same proposition. NIMMER & NIMMER, *supra* note 11, § 2A.07[B]. Seemingly to buttress its claim that copyright law can protect the subject matter of an expired utility patent, the treatise now cites to *Knickerbocker Toy Co. v. Winterbrook Corp.*, 554 F. Supp. 1309 (D.N.H. 1982). NIMMER & NIMMER, *supra* note 11, § 2A.07[B], at 2A-57 n.36. *Knickerbocker* involved a claim of copyright in Raggedy Ann dolls, a much earlier iteration of which had been the subject of a now-expired design patent. *Knickerbocker*, 554 F. Supp. at 1312. *Knickerbocker* does not, however, support the proposition that copyright protection is available for the subject matter of an expired utility patent.

107 NIMMER, *supra* note 70, § 37.3–37.4, at 153–57.

108 *Id.* at 155.

likely have been an infringer.¹⁰⁹ The pre-2016 versions of the treatise asserted that the Supreme Court's *Mazer* decision substantially curtailed the reach of the *Baker* ruling. The "proper" scope of *Baker* after *Mazer* was, as the treatise has long interpreted it, that others were free to copy "the idea" in a copyrighted work, but not its expression.¹¹⁰

I have elsewhere criticized at some length the Nimmer treatise's interpretation of *Baker* and shown that Congress codified the *Baker* holding in the Copyright Act of 1976 ("1976 Act").¹¹¹ The treatise recently substantially revised its description and characterization of *Baker* and its progeny in a manner that is closer to my conception of *Baker*.¹¹² However, it has not changed its position about overlapping copyright and utility patent protections.¹¹³ The revised treatise now acknowledges that extending copyright protection to "functional activities" may give rise to "evils of monopol[y]" that should be avoided.¹¹⁴ But unlike the Goldstein treatise, the Nimmer treatise does not tie the "evils of monopoly" concern to the longstanding policy of channeling

109 *Baker v. Selden*, 101 U.S. 99, 101 (1879). Selden's claim was that "no one can use the system without using substantially the same ruled lines and headings which he has appended to his books in illustration of it," and because these ruled lines and headings are part of the book in which Selden owned copyright, his claim was that "no one can make or use similar ruled lines and headings, or ruled lines and headings made and arranged on substantially the same system, without violating the copyright." *Id.* at 101.

110 NIMMER, *supra* note 70, § 37.4, at 156.

111 See Samuelson, *supra* note 39, at 1924–36, 1944–61; see also J.H. Reichman, *Computer Programs as Applied Scientific Know-How: Implications of Copyright Protection for Commercialized University Research*, 42 VAND. L. REV. 639, 693 n.288 (1989) (characterizing Nimmer's interpretation of *Baker* as fallacious); Lloyd L. Weinreb, *Copyright for Functional Expression*, 111 HARV. L. REV. 1149, 1174–76, 1179–80 (1998) (finding no support for the Nimmer treatise's interpretation of *Baker*). Professor Wendy Gordon has recently weighed in with a similar critique. See Gordon, *supra* note 13 (long version manuscript at 18–21) (disagreeing with the Nimmer treatise's position on *Baker* and the use/explanation distinction).

112 NIMMER & NIMMER, *supra* note 11, § 2A.05. The revised treatise at long last features some cases in which courts have held that methods and systems, not just abstract ideas, are unprotectable by copyright law. *Id.* It has renounced the interpretation of *Mazer* as having narrowed the ruling in *Baker*. *Id.* § 2A.05[B][1]. Although these are steps in the right direction, I disagree with the revised treatise's characterization of *Mazer* as having "unambiguously reject[ed]" the argument that "the utilitarian nature of a work might interfere with its eligibility for copyright protection." *Id.* The Court in *Mazer* merely decided that the statuette could be copyrighted as a work of art, despite the facts that it was mass-produced and that the principal market for its exploitation was as the base of a lamp. See *Mazer v. Stein*, 347 U.S. 201, 204–05 (1954). The Court did not regard the Balinese dancer statuette as a utilitarian work. *Id.* ("The case requires an answer, not as to a manufacturer's right to register a lamp base but as to an artist's right to copyright a work of art intended to be reproduced for lamp bases.").

113 NIMMER & NIMMER, *supra* note 11, § 2A.07[A]–[B]. The revised treatise continues to say that *Barton* "suggest[ed]" that copyright protection is available for the subject matter of an expired utility patent. *Id.* § 2A.07 [B], at 2A-57 n.36. See *supra* notes 103–06 and accompanying text for a discussion of the error in the treatise's treatment of *Barton*.

114 NIMMER & NIMMER, *supra* note 11, § 2A.03[B].

grants of exclusive rights in functional designs away from copyright and into the utility patent regime.¹¹⁵

C. *Some Reflections on Why Copyright and Utility Patent Domains
Should Not Overlap*

The Nimmer treatise's analysis of the copyright/utility patent overlap issue may be deeply flawed and unconvincing, but that does not, of course, mean that it is entirely wrong. Quite telling, however, is the fact that in the more than fifty years since the treatise was first published, there has been no reported decision in which courts have upheld overlapping copyright and utility patent protections in the same intellectual creation.

Some defendants have made categorical exclusivity arguments to the Supreme Court in some post-*Mazer* IP cases, but the Court has not found these arguments persuasive. In *Traffix Devices, Inc. v. Marketing Displays, Inc.*, for instance, the Court was unwilling to say that the existence of a utility patent for a product configuration, whether in force or expired, should necessarily foreclose trade dress protection for that design.¹¹⁶ *Traffix* relied upon the expiration of a utility patent on the dual spring sign at issue as preclusive of judicial recognition of trade dress protection for the same design.¹¹⁷ The Court decided it was unnecessary to reach this issue.¹¹⁸ Yet, the Court characterized the existence of a utility patent as "strong evidence" that a product configuration was too functional to be protectable trade dress.¹¹⁹ A categorical exclusivity argument was more directly shot down in *J.E.M. AG Supply, Inc. v. Pioneer Hi-Bred International, Inc.*, in which the Court rejected J.E.M.'s argument that novel plants should not be the subject matter of utility patent protections because Congress intended for plant breeder creations to be protected only under the Plant Variety Protection Act.¹²⁰

The Supreme Court has not since *Baker* ruled on copyright/utility patent categorical exclusivity defenses, although they have been raised in some computer software cases. In 1995, the Court split 4-4 in *Lotus Development Corp. v. Borland International, Inc.*,¹²¹ seemingly unpersuaded by Borland's *Baker*-based categorical exclusivity defense. Borland argued that it had not infringed copyright in the Lotus 1-2-3 spreadsheet program because the features it copied—namely, the Lotus command hierarchy and macro system—

115 See PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 2.15, at 2:177 (3d ed. 2015).

116 532 U.S. 23, 29–30, 34–35 (2001).

117 *Id.* at 26, 35. The Tenth Circuit had taken a categorical exclusivity approach to trade dress and utility patent protection in *Vornado Air Circulation Sys., Inc. v. Duracraft Corp.*, 58 F.3d 1498, 1500 (10th Cir. 1995). Some amicus curiae briefs in *Traffix* urged this approach as well. See 532 U.S. at 35.

118 532 U.S. at 35.

119 *Id.* at 29.

120 534 U.S. 124, 127 (2001).

121 516 U.S. 233 (1996) (per curiam).

were patent, not copyright, subject matter.¹²² Twenty years later, the Court declined to review the Federal Circuit's deeply flawed decision in *Oracle America, Inc. v. Google Inc.*, in which one of Google's defenses was that computer program interfaces, such as the Java application program interface elements implemented in its Android smart phone software, were patent, not copyright, subject matter.¹²³ The Court's reluctance to address the copyright/utility patent boundary issue in those cases may partly be due to the highly functional and technically complicated nature of computer software, which makes it difficult for courts to distinguish which elements of computer programs are eligible for protection as copyrightable expression and which elements are protectable, if at all, by utility patents.¹²⁴ It also does not help, as Professors McKenna and Sprigman have noted, that utility patent law lacks a coherent conception about the utility required for an inventor to be eligible for this kind of exclusive right.¹²⁵

The Supreme Court's reluctance to embrace categorical exclusivity arguments in these cases does not, however, justify a Nimmer-like acceptance of overlaps in copyright and utility patent subject matters or protections. Courts have long recognized numerous policy rationales for maintaining distinct boundaries as between copyright and utility patents arising mainly from the many significant differences between the copyright and utility patent regimes. These differences are not accidental incidents of two unrelated statutory schemes, but rather fundamental to achieving the innovation-promoting objectives for which each of these laws was enacted.¹²⁶ Copyright law is designed to induce the creation and dissemination of a plethora of original artistic and literary works, while patent law is designed to induce investment

122 Brief for Respondent, *Lotus*, 516 U.S. 233 (No. 94-2003), 1995 WL 728538, at *22-37.

123 750 F.3d 1339, 1379-81 (Fed. Cir. 2014), *cert. denied*, 135 S. Ct. 2887 (2015). The Federal Circuit rejected Google's categorical exclusivity argument in this decision. The *Oracle* decision's treatment of the patent/copyright overlap issue is criticized at length in Pamela Samuelson, *Functionality and Expression in Computer Programs: Refining the Tests for Software Copyright Infringement*, 31 BERKELEY TECH. L.J. (forthcoming 2017) (manuscript at 46), <https://ssrn.com/abstract=2667740>. It explains why the Court of Appeals for the Federal Circuit's reliance on *Mazer* in support of its overlapping protection theory is flawed. The Nimmer treatise, however, cites approvingly to the Federal Circuit's *Oracle* decision on this issue. See NIMMER & NIMMER, *supra* note 11, § 2.07[A], at 2A-56.

124 For an extensive effort to explore the functionality limits of copyright scope in computer program cases, see for example Samuelson, *supra* note 123 (manuscript at 6-46). The 2016 version of the Nimmer treatise recognizes that, as a practical matter, "demarkating the true domains of patent and copyright so as to treat a claimant's choice as preclusive, may prove difficult to impossible." See NIMMER & NIMMER, *supra* note 11, § 2.07[A], at 2A-55. I have sought to do this in recent work.

125 McKenna & Sprigman, *supra* note 4, at 10-11.

126 See, e.g., David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677 (2012) (analyzing justifications for the costliness of getting patents and the low costs of copyrights).

in and disclosure of significant advances in the technological arts.¹²⁷ The policies underlying these two regimes would be substantially thwarted if overlaps in copyright and utility patent subject matters and protections were recognized.

Patent durations, for example, are far shorter than copyrights for a good reason. The law allows inventors of new technologies a reasonable opportunity to recoup their investments, but patent law's shorter duration allows second comers to freely use and build upon existing technology designs when the patent term ends.¹²⁸ Competition and ongoing innovation depend on this freedom to operate in the general products marketplace, a freedom that would be thwarted if copyright protection extended the patent monopoly by several decades.¹²⁹

Incentives to utilize the patent system to obtain exclusive rights in one's technological innovations would also be undermined if inventors could get exclusive rights to their useful innovations merely by embodying them in copyrighted works.¹³⁰ The USPTO database provides actual and constructive notice of the existence of exclusive rights in technology innovations.¹³¹ Members of the public need to be able to rely upon this centralized database to determine whether patents have issued in specific technology domains. As the Supreme Court recognized nearly 140 years ago in *Baker*, it would be "a surprise and a fraud upon the public" to allow authors of writings to get patent-like protections for useful arts that might be described or otherwise depicted in copyrighted works.¹³²

Consider also this admonition from the Supreme Court's decision in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*: "The novelty and nonobviousness requirements of patentability embody a congressional understanding, implicit in the Patent Clause itself, that the free exploitation of ideas will be the rule, to which the protection of a federal patent is the exception."¹³³ The Court observed that "[t]he attractiveness of [the patent] bargain, and its effectiveness in inducing creative effort and disclosure of the results of that effort, depend almost entirely on a backdrop of free competition in the

127 See, e.g., Paul Goldstein, *Infringement of Copyright in Computer Programs*, 47 U. PITT. L. REV. 1119, 1122–23 (1985).

128 See, e.g., *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230–33 (1964) (holding that an unpatented pole lamp design would be in the public domain after the patent expired or was invalidated). See generally J.H. Reichman, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432, 2448–53 (1994).

129 See, e.g., *Sears*, 376 U.S. at 230–31 (holding that the public has a right to copy products not subject to patents or copyrights); see also *supra* notes 19–24 and accompanying text.

130 See, e.g., *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 161–62 (1989) (emphasizing the importance of the USPTO as a central repository of the existing state of the technological arts by giving notice to the public about what is patented).

131 *Id.* at 151 ("To a limited extent, the federal patent laws must determine not only what is protected, but also what is free for all to use.").

132 *Baker v. Selden*, 101 U.S. 99, 102 (1879).

133 *Bonito Boats*, 489 U.S. at 151.

exploitation of unpatented designs and innovations.”¹³⁴ The exclusion of utility patent subject matters from the subject matter and scope of copyright preserves this freedom to use unpatented technologies and those in which utility patents have expired.¹³⁵ Allowing creators to get both copyright and utility patent protections in the same creations would undermine achieving the policy objectives these laws are intended to attain.

More particularly, utility patent law is premised on the idea that any innovation that makes products faster, cheaper, stronger, more efficient, or otherwise more operative is one that everyone should be able to practice unless its developer has patented it or is able to keep it as a trade secret. Patent terms are shorter than copyright so that the technical improvements can get into the public domain more quickly than works of authorship will. Competition in the general products market as to unpatented technologies promotes social welfare. It also tends to induce further innovation because those who imitate unpatented functional designs also tend to refine, adapt, and improve upon the designs.¹³⁶ Utility patent law allows second comers the opportunity to obtain IP protection for their adaptations or improvements, whereas copyright law blocks adaptations through the derivative work right.¹³⁷

Maintaining separateness in the boundaries of copyright and utility patent protections is thus important to achieving the proper balance in IP laws that encourage the creation and dissemination of works of authorship and of inventions, while avoiding the creation of monopolies that would unduly stifle competition and retard advances in science and useful arts.¹³⁸ Allowing

134 *Id.*

135 *See, e.g.,* Moffat, *supra* note 13, at 1512 (discussing how “overlapping protection disrupts the federal [IP] system, frustrates the patent and copyright bargains, and meddles with the incentive structures” each law establishes, as well as “imposes a host of unnecessary costs on [IP] owners, litigants, third parties, and the public”).

136 *See, e.g.,* *Bonito Boats*, 489 U.S. at 159–60.

137 Copyright law is more hostile than patent law to second comers who adapt or improve upon protected intellectual creations. 17 U.S.C. § 106(2) (2012) (establishing copyright’s exclusive right to prepare derivative works). Some have criticized this difference between patent and copyright law. *See, e.g.,* Lemley, *supra* note 27 (suggesting that patent law does a better job of promoting ongoing innovation of improvements than copyright). It is not apparent, though, that conventional copyrighted works, such as Lin-Manuel Miranda’s *Hamilton* musical or J.K. Rowling’s *Harry Potter* books, are as susceptible to improvement as functional works, such as software. GOLDSTEIN, *supra* note 115, § 7.3 n.12, at 7:103.

138 *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23, 33–34 (2003); *see Bonito Boats*, 489 U.S. at 146. It is also worth noting that while *Mazer* has held that design patent and copyright subject matters overlap, exclusivity in IP regimes is more common than the Nimmer treatise seems to recognize. Innovators must often choose, for instance, between copyright and trade secrecy protection for commercially distributed copies of works of authorship, or between patent and trade secrecy protections for technological innovations (although firms sometimes try to have it both ways). *See, e.g.,* W. Nicholson Price II, *Expired Patents, Trade Secrets, and Stymied Competition*, 92 NOTRE DAME L. REV. 1611 (2017).

overlapping copyright and utility patent protections would undermine this balance and harm the public interests these laws were intended to safeguard.

II. MORE NUANCED APPROACHES TO DISCERNING COPYRIGHT/UTILITY PATENT BOUNDARIES

Computer programs are not the only type of intellectual creation as to which it may be difficult to discern the proper boundaries of copyright and utility patent subject matters and protections.¹³⁹ Like computer programs, architectural designs are protectable by copyright law despite their intrinsically functional character.¹⁴⁰ Numerous utility patents have issued to protect architectural innovations.¹⁴¹ While copyright surely protects aesthetic designs of buildings and utility patents can issue for advances in construction technologies and processes, the intermixture of aesthetic and functional elements of building design may likewise blur the boundary lines of copyright and utility patent protections of architectural innovations.¹⁴²

139 It is beyond the scope of this Article to address whether or to what extent copyright and utility patent subject matters overlap as applied to computer software. The issue has been, however, of longstanding interest to me. See Pamela Samuelson, *Survey on the Patent/Copyright Interface for Computer Programs*, 17 AIPLA Q.J. 256 (1989). An extensive literature exists about what roles copyright and patent laws do or should play in protecting computer programs and their component parts. Among the more notable contributions are: JONATHAN BAND & MASANOBU KATOH, *INTERFACES ON TRIAL 2.0* (2011); Dennis S. Karjala, *The Relative Roles of Patent and Copyright in the Protection of Computer Programs*, 17 J. MARSHALL J. COMPUTER & INFO. L. 41 (1998); Mark A. Lemley, *Convergence in the Law of Software Copyright?*, 10 HIGH TECH. L.J. 1 (1995); Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?*, 106 HARV. L. REV. 977 (1993); Reichman, *supra* note 111; Weinreb, *supra* note 111. I confess to having contributed to this literature. See, e.g., Pamela Samuelson, *Benson Revisited: The Case Against Patent Protection for Algorithms and Other Computer Program-Related Inventions*, 39 EMORY L.J. 1025 (1990); Samuelson, *supra* note 123; Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308 (1994). I expect to address software copyright/patent boundary issues in a subsequent article.

140 17 U.S.C. § 102(a)(8) (2012).

141 Kevin Collins's work-in-progress gives examples of patents that have issued for architectural innovations. See Kevin Emerson Collins, *Patent Law's Authorship Screen*, 84 U. CHI. L. REV. (forthcoming 2017), https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2922669; Kevin Emerson Collins, *A Taxonomy of Architectural Patents* [hereinafter Collins, *Taxonomy*] (unpublished manuscript) (on file with author). The Buckminster Fuller Institute website lists this architect's many patents and patent applications. See *Patents*, BUCKMINSTER FULLER INST., <https://www.bfi.org/about-fuller/bibliography/patents> (last visited Mar. 23, 2017). An example of a recent architectural patent is U.S. Patent No. 9,167,724 (filed Jan. 12, 2015), issued on October 20, 2015, to Google Inc. for alternative data center building designs.

142 Collins notes that "the law does have to distinguish the aspects of architectural ingenuity that are supposed to be copyrightable from those that are supposed to be patentable because the same feature of a design is not supposed to receive both copyright and patent protection." Collins, *Taxonomy*, *supra* note 141, at 3. To assist in this assessment, Collins constructed a taxonomy that "can helpfully illustrate categories of architectural ingenuity that have, historically been patented, [but he] will also suggest considerable uncertainty

Ambiguous copyright/patent subject matter disputes are, in fact, far from new, as one pre-*Baker* British case recognized in 1798. A British court dissolved an injunction issued in a copyright case, in part because it was unclear whether the plaintiff's design for ladies' fans, which had adapted the principles of telegraphy so women could converse with each other by how they held their fans, was the subject matter of copyrights or of utility patents.¹⁴³ Among the other litigated, ambiguous subject matter disputes have been those involving toys and puzzles.¹⁴⁴ Rare, but not unknown, are examples of intellectual creations upon a visual inspection of which it was unclear whether the works were sculptures or machines.¹⁴⁵

In response to ambiguous copyright or utility patent subject matter cases, courts and the Copyright Office have developed several strategies to channel creators to the appropriate type or scope of IP protections. The remainder of this Part discusses each of the approaches. Sometimes explicit and sometimes implicit in these strategies has been the desire to avert the kinds of policy conflicts discussed in Part I that might arise if creators were able to successfully assert both copyright and utility patent protection for the same creation.

One approach seeks to layer or segment IP protections so that copyright protection extends to some aspects of an intellectual creation while patent protection may be available for other aspects. A second approach accepts the existence of overlapping copyright and patent protections in intellectual creations, but requires the creator to elect one form of protection or the other. A third looks to the merger doctrine under which the inseparability of aesthetic and functional elements will cause the work to be excluded from copyright protection. Under a fourth approach, the Copyright Office may decide that certain subject matters, such as genetically engineered DNA, are not copyright subject matter, in part because they are patent subject matter. A fifth is a *Traffix*-like approach that regards the functionality of a design described in one or more utility patents as relevant to whether copyright protection is or should be available to that design. A sixth approach limits the scope of copyright protection in an arguably utility-patentable creation so that only exact or near-exact copying would infringe.

A. *The Layering or Segmentation Approach*

Numerous cases decided after *Baker* have upheld copyrights in books about or drawings of functional subject matters, while signaling that the copy-

[exists] about what can and cannot be patented on the margin, especially when patent law butts up against copyright law." *Id.* at 2.

143 A news report on the outcome of the case in Chancery, Lincoln's Inn Hall, concerning Fanology, *Clarke v. Cocks*, appeared in the *Morning Post* and *Gazetteer* (London), July 24, 1798. A description of the principles of fanology can be found at *The Fan*, EIGHTEENTH CENTURY LIT, <http://eighteenthcenturylit.pbworks.com/w/page/76053578/Fans> (last visited Mar. 23, 2017).

144 See *infra* Sections II.A, II.C, and II.F.

145 See *infra* Section II.B.

right protection was available for certain aspects of that work (e.g., explanatory materials), but not other aspects (e.g., a shorthand system) that might qualify for exclusive rights if utility-patented.¹⁴⁶ The segmentation approach treats copyright as providing one layer of protection, while recognizing that patent law may provide another layer for different aspects.

To ensure that this kind of layering or segmentation will happen, Congress added a specific provision to the 1976 Act stating that “[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”¹⁴⁷ This provision codifies the principal holdings of *Baker v. Selden* and its progeny.¹⁴⁸

The Ninth Circuit recently applied the segmentation approach in *Bikram’s Yoga College of India, L.P. v. Evolution Yoga, LLC*.¹⁴⁹ Bikram Choudhury developed a sequence of twenty-six yoga poses and two breathing

146 See, e.g., *Brief English Sys. v. Owen*, 48 F.2d 555, 556 (2d Cir. 1931) (holding that a copyright in a book on a shorthand system was not infringed by a second book explaining the same system). The Second Circuit recently cited *Owen* positively in *Matthew Bender & Co. v. West Publ’g Co.*, 158 F.3d 674, 683 n.6 (2d Cir. 1998) (citing *Brief English Sys.*, 48 F.2d at 556). The Supreme Court adopted a layering or segmentation approach in *Baker* when ruling that *Selden’s* copyright provided protection to his explanation of the bookkeeping system, but not to the bookkeeping system itself, which the Court regarded as a useful art which could enjoy exclusive rights only if patented. See *supra* Section I.A; see also *Kohus v. Mariol*, 328 F.3d 848, 858 (6th Cir. 2003) (remanding copyright case for further analysis of the functionality of a latch depicted in a drawing because of the technical nature of the drawing, which may be “appropriate for patent treatment”); *Forest River, Inc. v. Heartland Recreational Vehicles, LLC*, 753 F. Supp. 2d 753, 759 (N.D. Ind. 2010) (finding no infringement of copyright in a technical drawing to build an RV with the same floor plan as depicted in the drawing; plaintiff’s theory would turn copyright into a patent); *Nat’l Med. Care, Inc. v. Espiritu*, 284 F. Supp. 2d 424, 435 (S.D. W. Va. 2003) (holding that a technical drawing copyright was not infringed by building a cabinet for a dialysis center because the cabinet was a utilitarian work); *Fulmer v. United States*, 103 F. Supp. 1021, 1022 (Ct. Cl. 1952) (concluding that the copyright in the drawing did not extend to parachute design); *Muller v. Triborough Bridge Auth.*, 43 F. Supp. 298, 299–300 (S.D.N.Y. 1942) (holding that a copyrighted drawing was not infringed by building the bridge approach depicted in the drawing). Some software copyright cases have endorsed a segmentation approach under which copyright protection would be available to program code and patent protection for program processes. See, e.g., *Atari Games Corp. v. Nintendo of Am. Inc.*, 975 F.2d 832, 839 (Fed. Cir. 1992). This approach is an example of the filtering type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

147 17 U.S.C. § 102(b) (2012). For a thorough discussion about the origins of this provision and its intended scope, see Samuelson, *supra* note 39, at 1928–36 (explaining that *Baker* is not a case about the idea/expression distinction, but rather mainly a case that establishes a channeling doctrine through which courts can avert conflicts between utility patent and copyright subject matters, protections, and policies).

148 See Samuelson, *supra* note 39, 1944–52.

149 *Bikram’s Yoga Coll. of India, L.P. v. Evolution Yoga, LLC*, 803 F.3d 1032 (9th Cir. 2015).

exercises. He wrote about this sequence in books, made recordings to explain and illustrate the sequence, and directly taught the sequence to students. Choudhury sued Evolation Yoga for copyright infringement because Evolation taught the same yoga sequence and breathing exercises. Choudhury claimed to have registered copyrights not only in his books and cassettes, but also in the compilation of exercises set forth in the books.¹⁵⁰

The Ninth Circuit did not question the validity of Choudhury's copyrights, but held that the yoga sequence was not within the scope of protection available from copyright law.¹⁵¹ Using Choudhury's own words, the Ninth Circuit explained why: "[T]he Sequence is a 'system' or a 'method' designed to 'systematically work every part of the body, to give all internal organs, all the veins, all the ligaments, and all the muscles everything they need to maintain optimum health and maximum function.'" ¹⁵² This system or method was excluded from copyright protection under *Baker* and 17 U.S.C. § 102(b).¹⁵³ To get an exclusive right in that system or method, said the Ninth Circuit, Choudhury would have needed to get a patent.¹⁵⁴

This segmentation or layering approach may also be useful in cases involving toys and games, categories of intellectual creations that are sometimes copyrighted and sometimes utility-patented,¹⁵⁵ and sometimes both.¹⁵⁶

150 *Id.* at 1035–36.

151 *Id.* at 1038.

152 *Id.*

153 *Id.* at 1039.

154 *Id.* at 1039–40. The court noted that "if [the Sequence] is entitled to protection at all, that protection is more properly sought through the patent process." *Id.* at 1040. The court declined to "opine on whether the Sequence is, in fact, patentable." *Id.* n.8. The court also rejected Choudhury's claim that the Sequence was a protectable compilation. *Id.* at 1041–42. The U.S. Copyright Office has issued a policy statement that clarifies that compilations of exercises are not copyright-protectable subject matter. *See* Registration of Claims to Copyright, 77 Fed. Reg. 37,605, 37,607 (June 22, 2012) (to be codified at 37 C.F.R. pt. 201); *see also* Pamela Samuelson, *Functional Compilations*, 54 HOUS. L. REV. (forthcoming 2017) (giving examples of compilations that were deemed too functional to be copyright-protectable).

155 *See, e.g.,* *Durham Indus., Inc. v. Tomy Corp.*, 630 F.2d 905 (2d Cir. 1980) (upholding claims of copyright in some toys, but finding other toys insufficiently original or too functional to be copyright-protectable); *Seip v. Commonwealth Plastics, Inc.*, 85 F. Supp. 741 (D. Mass. 1949) (rejecting claim of copyright infringement as to a drawing of a toy whistle that the defendant had patented). The Ninth Circuit has opined in dicta that copyright protection is unavailable to games because they are proper subject matter for patent protection. *See* *Anti-Monopoly, Inc. v. Gen. Mills Fun Grp.*, 611 F.2d 296, 300 n.1 (9th Cir. 1979) (reversing a lower ruling that "monopoly" had become a generic name for a particular game and remanding for further proceedings); *see also* Boyden, *supra* note 5, at 439 (characterizing games as straddling the boundaries of copyright and patent protections). Class D21 of the USPTO classification of patentable inventions is for games, toys, and sporting goods. *Class D21: Games, Toys, and Sports Goods*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/web/patents/classification/uspcd21/schedd21.htm> (last modified Apr. 9, 2013).

156 *See, e.g.,* *Spinmaster, Ltd. v. Overbreak LLC*, 404 F. Supp. 2d 1097 (N.D. Ill. 2005) (holding that the likelihood of copyright and patent infringement in different aspects of a

Toys in the shapes of animals (e.g., teddy bears), for instance, may be protectable by copyright, but not by utility patent, law. Toys with mechanical features (e.g., windup toys) may be utility-patentable, but not copyrightable. Toys can, of course, have some mechanical elements and some expressive elements. Insofar as this is so, the segmentation approach would assign to patent law the role of protecting (if at all) a toy's mechanical components and to copyright law the role of protecting the toy's expressive elements.¹⁵⁷

Copyright and utility patent boundary issues may also arise as to drawings or other copyrightable materials included in patent applications and issued patents. The U.S. Copyright Office and the USPTO policies use a segmentation approach to deal with claims of copyright in original drawings, photographs, texts, and other copyrightable materials appearing in issued patents.¹⁵⁸ The Copyright Office will register claims in such materials. However, it makes clear that "the copyright in a patent [] [or] a patent application . . . does not extend to any 'idea, procedure, process, system, method of operation, concept, principle, or discovery' that may be disclosed in these works."¹⁵⁹ The USPTO allows inventors to include copyright notices in issued patents. However, the USPTO insists that patentees who claim such copyrights must allow some copying of those protected materials through the notice below:

A portion of the disclosure of this patent document contains material which is subject to [copyright] protection. The [copyright] owner has no objection to the facsimile reproduction by anyone of the patent document or the patent disclosure, as it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all [copyright] rights whatsoever.¹⁶⁰

flying saucer toy justified grant of preliminary injunction issued to prohibit manufacture and sale of the competing product); *Milligan v. Worldwide Tupperware, Inc.*, 972 F. Supp. 158 (W.D.N.Y. 1997) (rejecting patent and copyright infringement claims in a game and a book because patent had expired and the plaintiff failed to show substantial similarity in expression).

157 *Durham*, 630 F.2d at 914–15.

158 See U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 717.3 (3d ed. 2014) [hereinafter COMPENDIUM]; U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(w) (2015). Courts outside the United States have sometimes denied copyright claims in drawings embodied in issued patents. See, e.g., *Catnic Components Ltd. v. Hill & Smith Ltd.*, [1978] F.S.R. 405 (Ch.) (Eng.) (denying claim of copyright infringement in a drawing the defendant published in its brochure that was identical to that published in the plaintiff's patent); see also DERCLAYE & LEISTNER, *supra* note 13, at 293 (noting that courts in France and the UK have denied copyright claims in the published texts of patents or in patent drawings).

159 COMPENDIUM, *supra* note 158, § 717.3 (quoting 17 U.S.C. § 102(b) (2012)).

160 37 C.F.R. § 1.71(e) (1988). A recent study notes that the number of copyright claims mentioned in issued patents has risen in recent decades, although the percentage of such claims in patents is still very small (under one percent). See, e.g., Dennis Crouch, *Copyrighting Your Patent?*, PATENTLY-O (May 20, 2015), <http://patentlyo.com/patent/2015/05/copyrighting-your-patent.html>. There is, however, no longer a need to put copyright notices in patents because copyright notices became optional for works created on or after

Since the USPTO's adoption of this rule, there does not appear to have been litigation in which a patentee has alleged copyright infringement arising from copying of copyrighted materials disclosed in a patent.¹⁶¹

B. *Requiring an Election of Protection*

The Second Circuit endorsed an election of protection approach when faced with a plaintiff who claimed copyright in a creation for which he had sought and obtained a utility patent in *Korzybski v. Underwood & Underwood, Inc.*¹⁶² Korzybski claimed copyright in a model and drawing of what he called an anthropometer said to illustrate an Einsteinian theory.¹⁶³ The model was a structure consisting of numerous pieces of wood of various geometric shapes, having numerous holes, pegs, and strings that one could move around. Some pieces were permanently mounted on a flat board back-

March 1, 1989. See U.S. COPYRIGHT OFFICE, CIRCULAR 3: COPYRIGHT NOTICE (2013), <https://www.copyright.gov/circs/circ03.pdf>.

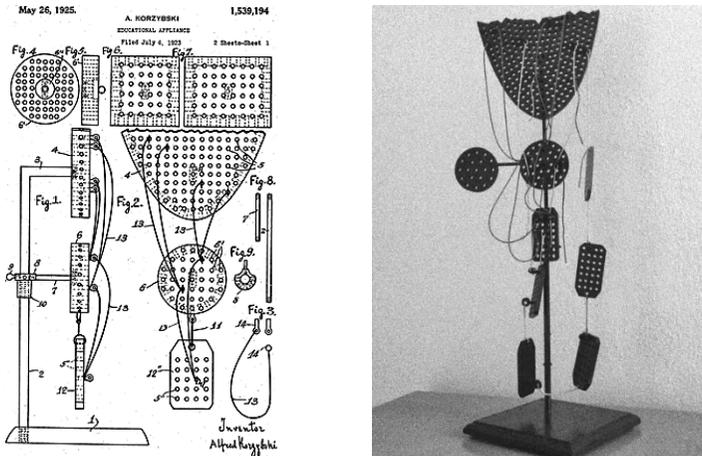
161 But see *Kohus v. Mariol*, 328 F.3d 848, 852 (6th Cir. 2003), in which the author of a drawing of a latch design for a children's play-yard sued a patentee for copyright infringement, alleging that the defendant had copied the plaintiff's drawing in its application for a patent on the latch. The court found error in the trial court's infringement analysis and remanded the case for further proceedings. *Id.* at 857–58; see also *Univ. of Colo. Found., Inc. v. Am. Cyanamid Co.*, 974 F. Supp. 1339, 1356–57 (D. Colo. 1997) (finding that ACC infringed copyright by copying figures and a table from the plaintiffs' article in the patent application for a vitamin product, although declining to award damages for this infringement, perhaps because the court awarded substantial damages for fraud and unjust enrichment arising from the defendant's having obtained a patent based on UCF researchers' work). Fair use resolved two other cases in which publishers sued patent lawyers for submitting to the USPTO copies of articles claimed as prior art relevant to pending patent applications. See *Am. Inst. of Physics v. Winstead PC*, No. 3:12-CV-1230, 2013 WL 6242843 (N.D. Tex. Dec. 3, 2013); *Am. Inst. of Physics v. Schwegman, Lundberg & Woessner, P.A.*, No. 12-528, 2013 WL 4666330 (D. Minn. Aug. 30, 2013).

162 *Korzybski v. Underwood & Underwood, Inc.*, 36 F.2d 727 (2d Cir. 1929). The *Korzybski* opinion was written by Judge Augustus Hand whose cousin Learned served on the same panel. As noted earlier, *supra* notes 73–76 and accompanying text, the Supreme Court in *Mazer* declined to address whether creators must elect between copyright and design patent protection, although all courts to have considered the issue before *Mazer* had endorsed the election theory or required election. *Mazer v. Stein*, 347 U.S. 201, 217 (1954). The post-*Mazer* decision that rejected the election of protection theory in respect of copyright and design patents was *In re Yardley*, 493 F.2d 1389 (C.C.P.A. 1974) (allowing concurrent copyright and design protection in a watch design). It is an interesting question whether election is a viable theory as between copyrights and utility patents. *Baker v. Selden* suggests that useful arts, by their very nature, are patent, not copyright, subject matter. 101 U.S. 99 (1879). Developers of creative technologies, under this conception, would seem to have no choice as between copyright and utility patent protections. Without a patent, they are seemingly ineligible for a grant of exclusive rights in their creations. However, some creations have an ambiguous character. Just by looking at Korzybski's anthropometer, it is not possible to tell whether it is a sculpture or a machine. However, the fact that Korzybski sought and obtained a utility patent on it made clear how he conceived of its subject matter.

163 *Korzybski*, 36 F.2d at 728.

ground, while others hung suspended by connecting cords and plugs.¹⁶⁴ Korzybski sued Underwood for copyright infringement because it took a photograph of his anthropometer.¹⁶⁵

FIGURE 1



166

Underwood asserted that the model was too functional to be copyrighted because it “discloses nothing in itself and only may be employed to work out ideas in the mind of the user.”¹⁶⁷ The Second Circuit disagreed, regarding the model as copyrightable because “the prime purpose of the

164 *Id.* The court quoted at length from Korzybski’s description of the model. The description of the structure sounds goofy, but Alfred Korzybski was an accomplished engineer. See *Alfred Korzybski (1879–1950)*, THE INST. OF GEN. SEMANTICS, <http://www.generalsemantics.org/the-general-semantics-learning-center/alfred-korzybski/> (last visited Mar. . 23, 2017).

165 *Korzybski*, 36 F.2d at 729. Korzybski’s motivation to register a claim of copyright in his anthropometer as a “plastic work[] of a scientific or technical character,” 17 U.S.C. § 5(i) (1976) (repealed), was likely because he realized he could not win a patent infringement lawsuit against Underwood based on its taking a photograph of his patented device. Such a photograph would not constitute a making, using, or selling of the invention within the meaning of patent law’s exclusive rights. 35 U.S.C. § 271(a) (2012). More plausible would be a claim that Underwood’s photograph infringed copyright in Korzybski’s model. See, e.g., *Gaylord v. United States*, 595 F.3d 1364 (Fed. Cir. 2010) (holding that a photograph of the copyrighted sculpture infringed). Underwood & Underwood were well-known commercial photographers in this period. An archive of 160,000 of their photographs can be found on the Internet. UNDERWOOD PHOTO ARCHIVES, <http://www.underwoodarchives.com/> (last visited Mar. 23, 2017).

166 *Left*: a diagram from Korzybski’s issued patent; *right*: a model of the anthropometer. This photograph appears in BRUCE I. KODISH, *KORZYBSKI: A BIOGRAPHY* (free online ed. 2014), <http://korzybskifiles.blogspot.co.uk/2014/11/chapter-30-saint-elizabeths-part-6.html>.

167 *Korzybski*, 36 F.2d at 728.

model is explanation to students of a certain system of abstract reasoning.”¹⁶⁸ The court likened the model to “a table of logarithms, or the text of a book in the language of a savage tribe, known only to the author.”¹⁶⁹ If these could be copyrighted, so could Korzybski’s model.

What sunk Korzybski’s copyright claim, in the Second Circuit’s view, was that Korzybski had some years before sought and obtained a utility patent for a device that was essentially the same as the model in which he claimed copyright.¹⁷⁰ By filing for and getting this patent, Korzybski had “made a full disclosure of his invention and dedicated it to the public, save for the right to make, use, and vend it during the period for which the patent gave him that monopoly.”¹⁷¹ There was, the court noted, “no substantial distinction” between the device Korzybski had patented and the model in which he claimed copyright.¹⁷² The Second Circuit went on to say that “[a]n inventor who has applied for and obtained a patent cannot extend his monopoly by taking out a copyright.”¹⁷³ For this reason, the court decided that Under-

168 *Id.* Insofar as Korzybski’s model was an embodiment of his system of abstract reasoning, the Second Circuit could have rejected the copyright claim because the design was a “necessary incident[]” of that system in keeping with the Supreme Court’s *Baker* decision. See *Baker*, 101 U.S. at 103 (“[W]here the [useful] art [a work] teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public . . .”). The merger doctrine has evolved to serve as the modern rule through which to limit copyright in “necessary incidents” to useful arts. See Pamela Samuelson, *Reconceptualizing Copyright’s Merger Doctrine*, 63 J. COPYRIGHT SOC’Y USA 417 (2016).

169 *Korzybski*, 36 F.2d at 728. This would seem to be an example of the threshold type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

170 *Korzybski*, 36 F.2d at 728–29. Korzybski’s utility patent for an educational appliance was U.S. Patent No. 1,539,194A (filed July 6, 1923) (issued May 26, 1925).

171 *Korzybski*, 36 F.2d at 729. The Second Circuit’s assertion in *Korzybski* that the issuance of the patent precluded copyright protection for any expressive material in the patent should be compared with the current Copyright Office and USPTO policies discussed *supra* notes 158–60 and accompanying text. A way to reconcile the *Korzybski* ruling and current agency policies would be to say that Korzybski would be entitled to enforce copyright in his drawings, but not to control manufacture of the patented anthropometer. Similar issues have arisen in the UK and Canada. See *Catnic Components Ltd. v. Hill & Smith Ltd.*, [1978] F.S.R. 405, 427 (Ch.) (Eng.) (holding that the patentee could not enforce copyright in drawings published in an issued patent); see also *Rucker Co. v. Gavel’s Vulcanizing Ltd.*, [1985]F.C.J. 1031 (Can.) (following *Catnic* in denying copyright claim as to drawing from an expired patent).

172 *Korzybski*, 36 F.2d at 729.

173 *Id.* Had the *Korzybski* case arisen under the 1976 Act, the outcome would very likely have been the same, although the reasoning would have been different, because it would not infringe copyright to take a photograph of a patented machine. See 17 U.S.C. § 113(b) (2012). Professor Crouch and I agree that this aspect of *Korzybski*’s ruling is probably still good law. See Crouch, *supra* note 160. Several treatises also regard *Korzybski* as good law. See, e.g., LOUIS ALTMAN & MALLA POLLACK, *CALLMANN ON UNFAIR COMPETITION, TRADEMARKS, AND MONOPOLIES* § 4:62 n.6 (4th ed. 2016); 1 DONALD S. CHISUM, *CHISUM ON PATENTS* § 23.06[2] (2016); 1 JOHN J. HAZARD JR., *COPYRIGHT LAW IN BUSINESS & PRACTICE* § 2:67 (2016). As noted earlier, the Nimmer treatise questions the viability of *Korzybski* as a prece-

wood had not infringed copyright by photographing an embodiment of Korzybski's patented device.¹⁷⁴ Having chosen to obtain utility patent protection for his device, Korzybski was foreclosed from claiming copyright in the same design.

C. *Inseparability or Merger of Expression and Utility*

The merger doctrine, which the Copyright Office and the courts can invoke when expression and utility in an intellectual creation are inseparable, is another approach that courts have used to deal with copyright claims in utility-patented subject matters.¹⁷⁵ This was the basis on which the Copyright Office denied OddzOn Products's application to register its claim of copyright in the design of its utility-patented KOOSH balls, which it characterized as soft sculptures.¹⁷⁶ OddzOn's motivation to register its copyright claim was apparently to enable it to get the U.S. Customs Service to stop importation of inexpensive knockoffs of its popular product at the border. The court noted that the procedure for stopping importation of copyright-infringing products was less onerous than for stopping imports of patent-infringing products.¹⁷⁷

The Copyright Office refused OddzOn's application for registration on the ground that the visual aspects of KOOSH balls, which consisted of numerous colorful flexible filaments radiating from a center core in the shape of a sphere, lacked original authorship.¹⁷⁸

dent. See *supra* notes 93–95 and accompanying text. While the Second Circuit's reasoning about the patent as a publication that bars copyright may no longer be sound law given that copyright notices are no longer required for works created since 1989, the court's rejection of Korzybski's copyright claim is sound and consistent with *Baker*.

174 *Korzybski*, 36 F.2d at 729.

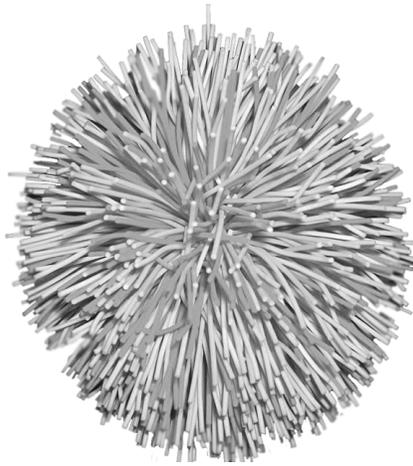
175 Dan Burk contends that copyright's (in)separability doctrine, which results in some attractive pictorial, graphic, and sculptural works being deemed uncopyrightable, is a species of the more general merger doctrine under which certain works or some aspects of protected works are deemed unprotectable by copyright law. See Dan L. Burk, *Method and Madness in Copyright Law*, 2007 UTAH L. REV. 587, 591. I concur. See Samuelson, *supra* note 168; see also *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142, 1145 (2d Cir. 1987) (“[I]f design elements reflect a merger of aesthetic and functional considerations, the artistic aspects of a work cannot be said to be conceptually separable from the utilitarian elements.”).

176 *OddzOn Prods., Inc. v. Oman*, 924 F.2d 346, 347 (D.C. Cir. 1991) (describing the KOOSH ball as “a patented, trademarked product”). The OddzOn patent was U.S. Patent No. 4,756,529 (filed June 11, 1987) (issued July 12, 1988) [hereinafter *OddzOn Patent*].

177 *OddzOn*, 924 F.2d at 347–48. The Customs Service requires copyright claimants to produce registration certificates before it will stop importation of copyright-infringing products at the U.S. borders. *Id.* (citing 19 C.F.R. § 133.31 (1975)).

178 *Id.* This is an example of the threshold type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

FIGURE 2



179

OddzOn claimed that the feel of the KOOSH ball was expressive. However, the examiner characterized the feel of the ball as a functional part of the product.¹⁸⁰ The ball was, the examiner ruled, a “useful article” whose “feel is inseparable from its utilitarian function.”¹⁸¹

OddzOn appealed the Office’s denial of registration. Both the district court and the court of appeals decided that the Office had not abused its discretion in so doing.¹⁸² The appellate court mentioned in passing the existence of a utility patent on the KOOSH ball design,¹⁸³ although its analysis of the registrability issue was seemingly not influenced by the existence of this patent. Yet, by affirming the Office’s refusal to register OddzOn’s copyright claim, the court thwarted OddzOn’s effort to avoid going through with the

179 KOOSH ball (photograph by NightMist, distributed under a CC BY-SA 3.0 license).

180 *OddzOn*, 924 F.2d at 347–48. OddzOn’s patent claimed the soft feel of the ball as functional because it made the ball easy to catch. See *OddzOn Patent*, *supra* note 176, at 1 (describing patent as being for a “generally spherical object with floppy filaments to promote sure capture”).

181 *OddzOn*, 924 F.2d at 349. During the pendency of its application for registration, OddzOn did not challenge the Office’s characterization of the KOOSH ball as a “useful article.” It did so, however, on appeal, relying on *Gay Toys, Inc. v. Buddy L Corp.*, 703 F.2d 970 (6th Cir. 1983), in which the Sixth Circuit ruled that a toy airplane was not a “useful article” and hence not subject to separability analysis. The D.C. Circuit rejected this argument because OddzOn had not raised the issue earlier. *OddzOn*, 946 F.2d at 350.

182 *OddzOn*, 946 F.2d at 348–50. Yet the decision indicated that it was not ruling that the KOOSH ball was uncopyrightable, but only that the Office had not abused its discretion in denying registration. *Id.* at 350. The author of the D.C. Circuit’s opinion was then-Judge, now-Justice, Ruth Bader Ginsburg. This suggests that Justice Ginsburg would not be a proponent of categorical exclusivity of copyright and utility patent protections.

183 *Id.* at 347.

more rigorous process for getting U.S. Customs officials to stop patent-infringing KOOSH knockoffs at the border.

Louis Kohus, like OddzOn, claimed both copyright and utility patent protection in the same creation.¹⁸⁴ He obtained a utility patent in April of 1989 for a “baby swing support assembly.”¹⁸⁵ In 2009, three years after that patent expired, Kohus sought to register his claim of copyright in the swing design as a three-dimensional sculpture.¹⁸⁶ The Office refused registration on the ground that there was no physically or conceptually separable sculptural authorship to support a copyright in the swing design.¹⁸⁷

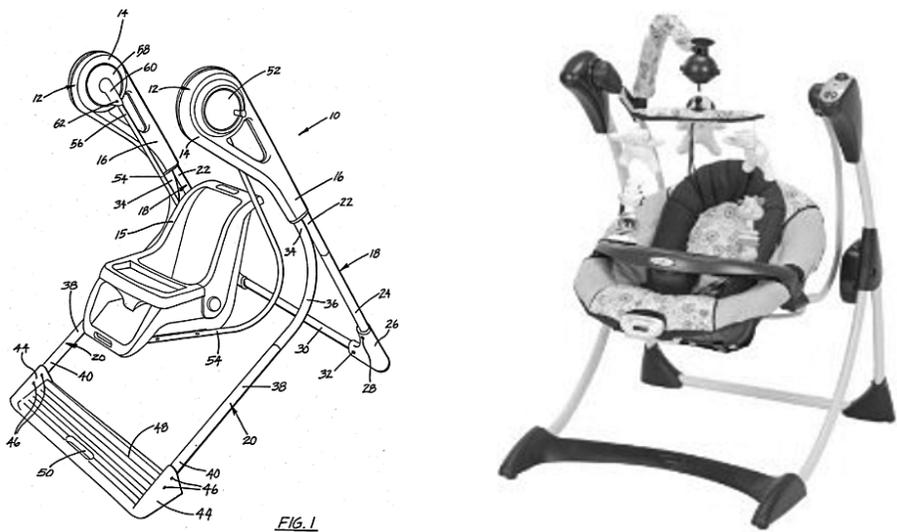
184 In another unrelated case, Kohus sued two of his former business partners (one of whom was his co-inventor on the children’s swing patent discussed in this Section) for copyright infringement, alleging that the defendants had copied his drawing of a latch design for a portable children’s playground in their application for a utility patent on the latch design. *See Kohus v. Mariol*, 328 F.3d 848 (6th Cir. 2003). The court observed that “Kohus invents and designs consumer products, including children’s items.” *Id.* at 851. From the court’s description of the dispute, it appears that Kohus regarded the latch design as within the scope of copyright in the drawing. *Id.* at 851–53. The Sixth Circuit did not directly address that issue, although it decided that the trial court had used the wrong test for infringement. It remanded the case for further proceedings in which the trial court was supposed to take into account the functionality of the latch design and consider whether the merger or *scènes à faire* doctrines narrowed the scope of the Kohus copyright. *Id.* at 853–57. The appellate court directed the trial court to allow expert testimony about the latch design, noting that “the drawings are technical and are appropriate for patent treatment.” *Id.* at 858. The court thought that trained engineering experts could offer “interpretational guidance” about “the structure and function of the device that the drawings depict.” *Id.* The design of a latch for a children’s playground is, however, a useful article that would almost certainly fail a separability test. Under 17 U.S.C. § 113(b) (2012), the court should have ruled that the copyright in the Kohus drawing did not extend to the latch design and affirmed the lower court’s ruling in favor of Mariol.

185 U.S. Patent No. 4,822,033 (filed Nov. 3, 1987) (issued Apr. 18, 1989). Kohus was one of three inventors on this utility patent. The patent contained numerous drawings of the swing from different angles. These drawings are substantially similar to the drawings of the swing in which Kohus also claimed copyright. *See* Second Amended Complaint for Copyright Infringement & Promissory Estoppel with Jury Demand at 8, *Kohus v. Graco Children’s Prods. Inc.*, 13 F. Supp. 3d 829 (S.D. Ohio 2014) (No. 1:09-cv-503); *see also Kohus*, 13 F. Supp. 3d at 832 (“The patent drawings show essentially the same swing as the Y-frame swing shown in the renderings sent to [Graco].”).

186 Letter from Steve Ruwe, Attorney-Advisor for the Review Bd. of the U.S. Copyright Office to William H. Oldach III, at 1 (June 21, 2013) [hereinafter Ruwe Letter] (on file with the author).

187 *Id.*

FIGURE 3



188

Asserting that the small-scale, three-dimensional version in which he claimed copyright was a toy, not a useful article, Kohus asked the Office to reconsider its initial rejection of his application for registration.¹⁸⁹ The Office has sometimes accepted registrations for toys, even those with some functional dimensions.¹⁹⁰ Based on this characterization of the work at issue, the Office granted him a registration certificate.¹⁹¹

Several years later, the Office became aware that Kohus was now claiming infringement of that copyright against Graco, a firm that was making and selling larger-scale instantiations of the swing in which children might sit.¹⁹² In reaction to this development, the Office proposed to cancel Kohus's regis-

188 Left: drawing of Kohus's patented baby swing support assembly; right: Graco baby swing.

189 Ruwe Letter, *supra* note 186, at 2–3.

190 Like *OddzOn*, Kohus relied upon *Gay Toys, Inc. v. Buddy L Corp.*, 703 F.2d 970 (6th Cir. 1983) (holding that a toy airplane was not a useful article), as well as on other similar cases. Ruwe Letter, *supra* note 186, at 2–6.

191 Ruwe Letter, *supra* note 186, at 23.

192 In 2009, following failed negotiations, Kohus sued Graco Children's Products, contending that Graco's swings infringed his copyright. Graco filed a motion to dismiss the claim on the ground that the swing was a useful article that lacked separable expressive elements. A federal court denied this motion and allowed Kohus to file a supplement to his amended complaint. See *Kohus v. Graco Children's Prods., Inc.*, 2010 WL 3785311 (S.D. Ohio 2010). The court characterized Kohus as "an inventor," *id.* at 1, and yet rejected Graco's claim that the swing was an unprotectable useful article *id.* at 2–4. That decision did not mention the expired patent.

tration because the full-sized swing was a useful article that lacked separable expressive elements.¹⁹³

Unwilling to accede to this cancellation, Kohus once again asked the Office to reconsider. He urged the Copyright Office Review Board to grant him a registration certificate under its “rule of doubt” so that a federal court could rule on whether the swing was a useful article which had separable artistic elements.¹⁹⁴

Although the Review Board expressed serious doubts about Kohus’s claim, it eventually granted this request.¹⁹⁵ Following this decision, Kohus filed a second amended complaint against Graco, alleging that it copied his swing’s open top and curved legs, two key features claimed in the utility patent.¹⁹⁶ Graco then moved for summary judgment, which the trial court denied. Although the case eventually settled, Kohus got farther with that litigation than he should have. The Copyright Office should have cancelled the Kohus copyright registration and denied the “rule of doubt” registration, both because the Office was correct that the artistic and functional aspects of the swing were inseparable (i.e., merged) and because the swing design was the subject matter of an expired patent.

Kohus notwithstanding, courts have generally been quite careful about interpreting copyright law so that it does not provide exclusive rights in designs of useful articles that are more appropriate subject matters for the utility patent regime.¹⁹⁷

193 Ruwe Letter, *supra* note 186, at 3–7. Graco must have asked the Office to cancel Kohus’s registration after losing its motion to dismiss.

194 *Id.* at 8. On rare occasions, the Office issues registration certificates, even when it doubts a work is copyrightable, so that claimants are able to litigate the copyrightability issue in federal court.

195 *Id.* at 9.

196 Second Amended Complaint for Copyright Infringement & Promissory Estoppel with Jury Demand at 8, *Kohus v. Graco Children’s Prods. Inc.*, 13 F. Supp. 3d 829 (S.D. Ohio 2014) (No. 1:09-cv-503). Graco filed two summary judgment motions, one based on a prior settlement agreement and one on the useful article doctrine (relying on the Copyright Office’s earlier denial). The district court denied Graco’s motion based on the prior settlement agreement. *Kohus*, 13 F. Supp. 3d 829. The parties subsequently settled.

197 *See, e.g.*, *Modern Aids, Inc. v. R.H. Macy & Co.*, 264 F.2d 93 (2d Cir. 1959) (holding that without a utility patent, the owner of copyright in a drawing of a massage machine could not get exclusive rights to control the sale of the same or similar machines); *Forest River, Inc. v. Heartland Recreational Vehicles, LLC*, 753 F. Supp. 2d 753, 759 (N.D. Ind. 2010) (concluding that copyright in a drawing of the floor plan of a recreational vehicle was not infringed by an advertisement for a competing product; “[t]o hold otherwise would be to elevate the Plaintiff’s copyright to a patent”); *Smith & Hawken, Ltd. v. Gardendance, Inc.*, 75 U.S.P.Q.2d 1853, 1855 (N.D. Cal. 2005) (“The useful article doctrine serves the important policy of keeping patent and copyright separate by preventing parties from using copyright to obtain a ‘backdoor patent’ on a functional article that cannot be patented.”); *see also* cases cited *supra* note 68.

*D. Some Intellectual Creations Are Not Works of Authorship in Part
Because of Their Patentability*

Some enterprising creators have sought to register claims of copyright in subject matters that the Copyright Office deems uncopyrightable in part because they might be utility-patentable.¹⁹⁸ An example is the Office's denial of a biotechnologist's application to register this Prancer DNA Sequence¹⁹⁹:

ATGGCAAGCTTGGTTAAGAAAGATATGTGTATTAAGATGACGATGGAG
GGTACTGTGAACGGTCACCATTTCAAATGCGTCGGTGAGGGTGAAGGC
AAACCGTTGGAAGTACCCAGAACATGCGTATCCCGTAACCGAAGGT
GCGCCGTCGCCGTTTGC GTTCGACATCCTGAGCCCGTCTGCGCGTAC
GGCAGCAAGCGTTCATTAAGCACGTATCGGGCATTCTGATTACTTC
AAAGAAAGCTTTCCGGAGGGCTTTACGTGGGAGCGTACCACCATTTAT
GAGGACGGTGGTGTCTGACCGGCACCAAGATACCTCCCTGGAAGGC
AATTGTCTGATCTACAAAGTTAAGGTTCTGGGCACTAATTTCCCGGCG
GATGGCCAGTATGAAGAAAATCTCCGGTGGTTGGGAGCCGTGCGTGG
AGATGCTGTACCCGCGTCATGGTGTCTGTGTGGTCAGAGCCTGATGG
CCCTGAAATGTACCGACGTAACCACCTGACCAGCCATCTGCGTACTA
CCTACCGCAGCCGTAAGCCGAGCAACGCCGTCAACATGCCGGAGTTTC
ACTTCGGCGACCATCGCATCGAAATTCTGAAAGCTGAGCAAGGTAAT

198 The University of New Hampshire's IPmall website provides access to U.S. Copyright Office Board of Appeals Decisions from 1995–2014. See *U.S. Copyright Office Board of Appeals Decisions: Decision of the Appeals Board-U.S. Copyright Office 1995-2014*, U.N.H. SCH. OF L. IPMALL, <http://ipmall.law.unh.edu/content/us-copyright-office-board-appeals-decisions> (last visited Mar. 23, 2017). Among many types of creations for which the Office has denied copyright registration for failure to claim copyrightable subject matter are crash test dummies, LandRover vehicle designs, caskets, and handbags. See Letter from William J. Roberts, Jr., Copyright Office Review Bd., to Daniel Bliss (Sept. 11, 2014), https://ipmall.law.unh.edu/sites/default/files/hosted_resources/CopyrightAppeals/2014/Q1Q10,Q1.52014.pdf (crash test dummy); Letter from William J. Roberts, Jr., Copyright Office Review Bd., to Michael B. Stewart (Aug. 19, 2014), https://ipmall.law.unh.edu/sites/default/files/hosted_resources/CopyrightAppeals/2014/L405LandRoverVehicleDesign2014.pdf (LandRover vehicle design); Letter from Tanya Sandros, Deputy Gen. Counsel, Copyright Office Review Bd., to Brett A. Schatz (Dec. 11, 2012), https://ipmall.law.unh.edu/sites/default/files/hosted_resources/CopyrightAppeals/2012/BrettSchatz.pdf (casket); Letter from Tanya M. Sandros, Deputy Gen. Counsel, Copyright Office Review Bd., to Jess M. Collen (Feb. 22, 2013), http://ipmall.law.unh.edu/sites/default/files/hosted_resources/CopyrightAppeals/2013/ClassicBag115748and1other.pdf (handbag).

199 See Letter from Robert J. Kasunic, Associate Register of Copyrights, Copyright Office Review Bd., to Mr. Simon (Feb. 11, 2014) (explaining the Office's reasons for denying reconsideration of its refusal to register Simon's claim in the genetically engineered Prancer DNA sequence in part because it was patentable subject matter) (on file with the author); see also Letter from William J. Roberts, Jr., Copyright Office Review Bd., to Tamsen Barrett (Sept. 5, 2013), http://ipmall.law.unh.edu/sites/default/files/hosted_resources/CopyrightAppeals/2013/GloFishRedZebraDanioGlowing.pdf (explaining why the Copyright Office had denied registration to a "GloFish Red Zebra Danio Glowing in Artificial Sunlight" on the ground that this genetically engineered fish was not copyrightable subject matter). This is another example of the exclusion type of functionality screen described in Buccafusco & Lemley, *supra* note 4, at 3.

TCTATGAACAATATGAGAGCGCGGTGGCACGTTATTGCGAAGCGGCTC
CGTCTAAGCTGGGTCATCACTAA.

Proponents of DNA copyrights claim that sequences, such as Prancer, are protectable as literary works.²⁰⁰ The statutory definition of this term—“works . . . expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects . . . in which they are embodied”—is arguably capacious enough to encompass DNA creations.²⁰¹ DNA sequences, like computer programs, are sets of instructions that bring about certain results.²⁰² Of course, DNA sequences found in nature could not be copyrighted for lack of human authorship, but genetic engineers should, proponents believe, be accepted as authors who express themselves in genetic code.

After the Office rejected the application to register the Prancer sequence, the applicant appealed. The Office denied the appeal on three principal grounds: first, the sequence was not an original work of authorship within the meaning of the 1976 Act; second, the sequence was among the procedures, processes, systems, and methods of operation that § 102(b) excludes from copyright protection; and third, the Office could not discern a sufficient quantum of copyrightable authorship to support a claim of copyright.²⁰³

The Prancer sequence may well be a human creation, but the Office noted that “the operation of the DNA is dictated by the laws of biology.”²⁰⁴ The Office could not discern any human authorship in the sequence to which copyright protection might attach. Nor did the Prancer sequence fall within any of the existing statutorily recognized categories of authorship. The Office felt constrained by the 1976 Act and its legislative history not to expand the bounds of copyright subject matter, saying that such expansions were a congressional prerogative.²⁰⁵

Among the reasons given for rejecting this application was that “a claim in a DNA sequence may be far better suited for the realm of patent” than for copyright,²⁰⁶ in keeping with the Supreme Court’s decision in *Association for Molecular Pathology v. Myriad Genetics, Inc.*²⁰⁷ *Myriad* “provides reason to question whether synthetic or cDNA sequences are proper subject matter for copyright since they are eligible for patent protection.”²⁰⁸ The patentability of

200 See, e.g., Andrew W. Torrance, *DNA Copyright*, 46 VAL. U. L. REV. 1, 30, 39–40 (2011); see also Letter from Robert Kasunic to Mr. Simon, *supra* note 199, at 4 (noting the claimant’s pro-copyright argument analogizing DNA sequences to computer programs).

201 17 U.S.C. § 101 (2012) (defining “literary works”).

202 Torrance, *supra* note 200, at 31–34.

203 Letter from Robert Kasunic to Mr. Simon, *supra* note 199, at 1.

204 *Id.*

205 *Id.* at 2–3.

206 *Id.* at 1.

207 *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013) (upholding the patentability of cDNA sequences, but rejecting the patentability of isolated natural sequences).

208 Letter from Robert Kasunic to Mr. Simon, *supra* note 199, at 5.

DNA sequences thus strengthened the Office's conclusion that they were not copyright subject matter.²⁰⁹

The Office also characterized the Prancer sequence as a "genetic formula for a biological system" lacking in "copyrightable expression."²¹⁰ The choices of how to arrange the nucleotide sequences in Prancer, even if the result of some human creativity, were "not made for the purpose of artistic expression" and did not bear the imprint of copyrightable authorship.²¹¹ The arrangement was rather "linked together in a specific order to be used to produce a functional result in a biological organism."²¹² This made the sequence an unprotectable process or system.

While the eligibility of a DNA sequence such as Prancer for utility patent protection was not the sole rationale for rejecting its creator's claim of copyright, the patentability of such sequences and concerns about social harms from overlapping protections were factors in the Office's decision not to accept registration of DNA copyright claims.

E. *Relevance of Utility Patents to the Viability of Copyright Claims*

Another strategy for managing copyright/utility patent boundaries may be to consider the existence of issued utility patents as strong evidence that an intellectual creation at issue should be understood to be utility patent, not copyright, subject matter.²¹³ A similar approach was taken relatively recently, albeit in the context of a trade dress/utility patent dispute, in the Supreme Court's decision in *Traffix*.²¹⁴ The Court recognized that the functionality claimed in an issued utility patent should be taken into account when assessing later claims that the design was protectable trade dress.²¹⁵ Commentators have suggested a *Traffix*-like approach should be used when assessing the significance of utility patents for copyright claims.²¹⁶

209 *Id.*

210 *Id.* at 6.

211 *Id.*

212 *Id.* at 7.

213 See, e.g., *Brown Instrument Co. v. Warner*, 161 F.2d 910, 911 (D.C. Cir. 1947); *Taylor Instrument Cos. v. Fawley-Brost Co.*, 139 F.2d 98, 100–101 (7th Cir. 1943); see also *Laureysens v. Idea Grp., Inc.*, 964 F.2d 131, 141 (2d Cir. 1992). *Laureysens* is discussed *infra* notes 228–39 and accompanying text. This would seem to be an example of the threshold type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

214 *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23 (2001).

215 For a discussion of the post-*Traffix* trademark functionality cases, see for example Mark P. McKenna, *(Dys)functionality*, 48 HOUS. L. REV. 823 (2011).

216 See, e.g., *Moffat*, *supra* note 5, at 648–56 (endorsing adaption of the *Traffix* functionality test for determining when pictorial, graphic, and sculptural works are ineligible for copyright protection because functional elements are inseparable); Samuelson, *supra* note 123, 46–53 (proposing a *Traffix*-like approach to determining when aspects of computer programs are too functional to be protected by copyright law). Consistent with this approach was a district court's consideration of utility patents on application program interfaces (APIs) as relevant to Oracle's copyright claim in elements of the Java API, although the district court did not cite to *Traffix*. See *Oracle Am., Inc. v. Google Inc.*, 872

Marketing Displays claimed trade dress protection in a dual spring design for outdoor signs so that the signs would bend in strong wind and bounce back after the wind died down.²¹⁷ After Traffix began selling signs using this design, Marketing Displays sued it for trade dress infringement. The trial court held that the dual spring design was too functional to be protectable trade dress.²¹⁸ The Sixth Circuit reversed on the grounds that the same function could be achieved through alternative designs and that adoption of one of those alternatives would not put competitors such as Traffix at a significant nonreputational advantage.²¹⁹ That court gave little weight to the existence of the expired utility patent that Marketing Displays had acquired some years before.²²⁰ The Supreme Court granted certiorari to resolve a circuit split over whether product configurations could be protected as trade dress if a significant part of the configurations had been covered by a utility patent.²²¹

The Court in *Traffix* regarded the existence of a prior patent as having “vital significance” and as “strong evidence” that a product configuration was functional.²²² It put a heavy burden on trade dress claimants to prove nonfunctionality through evidence that the design was “merely . . . ornamental, incidental, or arbitrary.”²²³ Competitive necessity to copy a feature and the existence of alternative designs were not the proper tests for judging whether a patented design could qualify for trade dress protection.²²⁴

The Court in *Traffix* held that a design was too functional to qualify as protectable trade dress if it was essential to the use or purpose of the device or it affected the cost or quality of the product.²²⁵ In applying this test to the facts in *Traffix*, the Court characterized the dual spring design as an “essential feature” of the claimed trade dress and noted that the design had important operational advantages.²²⁶ The dual spring design was consequentially too functional to qualify for trade dress protection.

The approach the Court used in *Traffix* could easily be adapted for use in copyright cases. For instance, when assessing the copyrightability of models such as Korzybski’s anthropometer, a court could treat the existence of a

F. Supp. 2d 974, 996 (N.D. Cal. 2012), *rev'd*, 750 F.3d 1339 (Fed. Cir. 2014), *cert. denied*, 135 S. Ct. 2887 (2015) (mem.). The *Oracle* decision’s treatment of the patent/copyright distinction is discussed at length in Samuelson, *supra* note 123, at 47–53.

217 *Traffix*, 532 U.S. at 25–26.

218 *See* *Mktg. Displays, Inc. v. Traffix Devices, Inc.*, 971 F. Supp. 262, 276 (E.D. Mich. 1997), *rev'd*, 200 F.3d 929 (6th Cir. 1999), *rev'd*, 532 U.S. 23 (2001).

219 *Mktg. Displays*, 200 F.3d at 940.

220 *Traffix*, 532 U.S. at 32. Even if the dual spring design had not been patented, the Court ruled that it would still have been too functional to qualify for trade dress protection. *Id.*

221 *Id.* at 28.

222 *Id.* at 29.

223 *Id.* at 30.

224 *Id.* at 32–34.

225 *Id.* at 33.

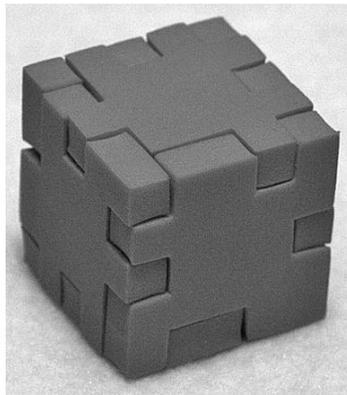
226 *Id.* at 30–31.

utility patent on the same subject matter, any equivalence between the device as claimed in the patent and the model said to be copyrightable, and any descriptions of the functionality of the device described in the patent as strong evidence that that model was too functional to be eligible for copyright protection. The court in *Korzybski* could obviously not have foreseen the Court's later ruling in *TrafFix*. However, if a similar case arose in the future, courts might find it useful to adapt the analysis in *TrafFix* to consider whether copyright and utility patent protection should be understood to coexist in the same intellectual creation or whether the patent claims identify utilitarian functionality for the design that should preclude copyright protection.

F. Thin Scope of Copyright If Utility Patents Cover Similar Designs

Another strategy that courts can use when trying to discern the proper boundaries of copyright and utility patent protections as to intellectual creations that do not fit within conventional copyright or patent subject matter domains is to interpret the scope of copyright narrowly insofar as designs of that sort are or may be utility-patent-eligible.²²⁷ Exemplifying this approach is *Laureyssens v. Idea Group, Inc.*, which considered the copyrightability of several foam rubber puzzles, each of which consisted of six flat pieces with notches that could be assembled to form three-dimensional hollow cubes.²²⁸

FIGURE 4



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After negotiations between IGI and an agent for Laureyssens to market the latter's puzzles fell through, IGI decided to make and sell similar puzzles

²²⁷ As McKenna & Sprigman have observed, patent law lacks a coherent account of the functionality that should be regulated through the utility patent regime. See McKenna & Sprigman, *supra* note 4, at 4–11.

²²⁸ *Laureyssens v. Idea Grp., Inc.*, 964 F.2d 131, 132–33 (2d Cir. 1992).

²²⁹ Laureyssen's Happy Cube. This photograph is available by ShooshX at WIKIMEDIA COMMONS, <https://commons.wikimedia.org/wiki/File:HappyCubeParisModel.jpg>.

in competition with Laureyssens.²³⁰ This caused Laureyssens to charge IGI with copyright and trade dress infringement. The trial court granted Laureyssens's motion for a preliminary injunction to stop IGI's manufacture and sale of the puzzles that were substantially similar to Laureyssens's on the trade dress claim,²³¹ and Laureyssens appealed.

In an effort to undermine Laureyssens's copyright claim, IGI brought to the trial court's attention some expired utility patents for cube puzzles that were quite similar to Laureyssens's and IGI's puzzles.²³² The trial court brushed aside the patent-based challenge and decided that there was sufficient originality in Laureyssens's puzzles to qualify for copyright protection, and the expressiveness of his puzzles was separable from their functionality.²³³

The Second Circuit accepted that IGI had copied design elements from Laureyssens's puzzles, but affirmed the trial court's ruling that this copying did not constitute improper appropriation of expression from Laureyssens's puzzle. IGI had, in the Second Circuit's view, only copied "the idea of a perfect hollow cube puzzle that can also be assembled in flat form," which required "a designer [to] use pieces that interlock through fingers and notches cut at right angles."²³⁴ The court took into account the existence of two patents issued in the mid-1970s for flat-to-cube puzzles as having a bearing on the scope of protection available to Laureyssens's puzzle.²³⁵ Because IGI had designed its puzzles differently from Laureyssens's by changing the size of the notches and the shapes of puzzle pieces,²³⁶ the court concluded there was no copyright infringement. The design change "result[ed] in a qualitatively different challenge to the puzzler."²³⁷

Another factor that impressed the court was that IGI's puzzle had been created with software programmed to generate complex designs for flat-to-cube puzzles.²³⁸ While the court did not discuss possible policy tensions that

230 *Laureyssens*, 964 F.2d at 134.

231 *Id.* at 133. The Second Circuit affirmed the trial court's ruling on the copyright claim, but reversed its ruling on the trade dress claim. *Id.* at 133. The Second Circuit agreed with the trial court that Laureyssens's puzzles had not yet acquired secondary meaning, but disagreed with its ruling in favor of Laureyssens on his secondary-meaning-in-the-making theory. *Id.* at 137-39.

232 *Laureyssens v. Idea Grp., Inc.*, 768 F. Supp. 1036, 1051-53 (S.D.N.Y. 1991), *aff'd in part, vacated in part, and remanded in part*, 964 F.2d 131 (2d Cir. 1992). IGI seems to have argued that these patents showed that the puzzles were utility patent, not copyright, subject matter, and because the patents had expired, both Laureyssens and IGI had the right to make these flat-to-cube puzzles. *See id.*

233 *See id.*

234 *Laureyssens*, 964 F.2d at 141.

235 *Id.* at 141-42. This is an example of the filtering type of functionality screen described in *Buccafusco & Lemley*, *supra* note 4, at 3.

236 The court noted that there were no pieces that were "virtually identical." *Laureyssens*, 964 F.2d at 142.

237 *Id.*

238 *Id.*

overlapping copyright and utility patent protections might engender,²³⁹ the court elided the potential for copyright to be used to protect the subject matter of expired patents by construing the scope of copyright in Laureyssens's puzzle to be quite narrow.

CONCLUSION

It is useful to conceptualize the various strategies that courts, the Copyright Office, and commentators have taken to discerning the copyright/utility patent boundaries as lying along a spectrum. A *Baker*-inspired categorical exclusivity approach would be at one end of this spectrum, and a Nimmer-like overlap-accepting approach would be at the opposite end. The segmentation, merger, and *Traffix*-like approaches would seem to be closer to the categorical exclusivity end of the spectrum, as would be the uncopyrightable subject matter approach. The thin scope and election of protection approaches, although they seemingly accept the existence of some overlap in protectability by utility patents and copyrights, represent pragmatic judicial responses for managing the copyright/patent boundaries in those unusual cases in which both forms of protection might arguably be claimed.

The Supreme Court in *Baker* recognized the risk that creators might be tempted to try to get both types of protection and warned against allowing dual copyright and utility patent claims.²⁴⁰ Some creators, notably Korzybski, OddzOn, and Kohus, did succumb to that temptation, but for the most part, courts have rejected overlapping protection claims.

Korzybski's motivation to assert copyright protection in the scientific model he created to demonstrate an Einsteinian theory was seemingly due to his recognition that the utility patent he had obtained in the anthropometer device would not give him the relief he wanted against Underwood. Underwood's photograph of Korzybski's patented device would not infringe his utility patent, although it might have infringed a valid copyright.²⁴¹ Having

239 The court was sufficiently impressed by the patents to append copies of the two most relevant patents to its decision. See *Laureyssens v. Idea Grp., Inc.*, 768 F. Supp. 1036, 1056–63 (S.D.N.Y. 1991).

240 *Baker v. Selden*, 101 U.S. 99, 102 (1879).

241 See *supra* note 164 (explaining that defendant Underwood's photograph of Korzybski's anthropometer would not have infringed his patent, although it might have infringed copyright if his claim for that protection had been upheld). The story behind Korzybski's copyright claim is even stranger than I initially realized. Korzybski was upset because his anthropometer was blamed for driving a doctor insane and for the doctor's wife's disappearance, perhaps as a murder victim, in newspaper stories that featured pictures of the anthropometer, the doctor, and the missing wife. Korzybski was also interrogated by the police because of the connection suspected between his patented device and the crazy doctor and missing wife. Korzybski wanted to stop further publication of stories linking his device with this couple, so he sued the photographer for infringement to stop further use of the photograph of his device in connection with the lurid stories. See KODISH, *supra* note 166, <http://korzybskifiles.blogspot.com/2014/12/chapter-32-trial-by-headline-part-3.html>.

elected to claim a utility patent on that device, the Second Circuit held him to this choice, which foreclosed his copyright claim.

OddzOn's motivation to register its claim of copyright protection in its KOOSH ball was seemingly to make it easier to arrange for U.S. Customs officials to stop importation of low-priced knockoff versions of this product.²⁴² OddzOn's effort to bypass the procedural requirements necessary to block imports of patented products failed because the Copyright Office refused to register his claim of copyright.²⁴³ This avoided the abuse of process that OddzOn was trying to achieve.

Kohus claimed copyright in his child's swing design after his utility patent expired.²⁴⁴ A copyright would obviously prolong his statutory monopoly on that useful design. During the time he was trying to register this claim with the Copyright Office, Kohus was clever enough to claim the swing design as a toy without mentioning the expired patent. Yet, soon after he succeeded in registering this copyright, Kohus sued a firm for copyright infringement for manufacturing a full-sized version in which children could swing.²⁴⁵ The Copyright Office should have cancelled the registration upon learning of this lawsuit. The Office did the public interest a disservice by granting Kohus's request for a registration certificate under the rule of doubt. The trial court did a similar disservice in denying the manufacturer's motion for summary judgment. It is against very important and well-recognized public policies to allow copyright to be asserted to extend exclusive rights in functional designs that are the subject of expired utility patents. Even in the absence of an issued utility patent, however, Kohus's design for a child's swing should be unprotectable by copyright law because its aesthetic elements were merged with its functionality.

Of the eight strategies this Article has identified for managing and discerning the boundaries of copyright and utility patent law, the layering or segmentation approach is the most typical. Under it, some aspects of an intellectual creation (e.g., a drawing of a parachute) is understood to be eligible for copyright protection, while other aspects might be eligible for utility patent protection (e.g., the design of the parachute depicted in the drawing). Even though a copyrighted work may embody both types of creativity, it has generally proven relatively straightforward in the more than 130 years since *Baker* to assign to copyright the role of protecting expressiveness in the work and to patents the role of protecting novel and nonobvious technological discoveries depicted or described therein.

There have, however, been times when it was unclear whether certain creations, such as Korzybski's anthropometer and Laureyssens's puzzles, are copyright or utility patent subject matter. In such cases, the election of protection, merger, and thin scope of protection doctrines may provide courts with useful strategies for managing copyright/utility patent boundaries.

242 See *supra* note 177 and accompanying text.

243 See *supra* notes 176–83 and accompanying text.

244 *Kohus v. Graco Children's Prods. Inc.*, 13 F. Supp. 3d 829, 832–33 (S.D. Ohio 2014).

245 See *supra* notes 184–95 and accompanying text.

Although the Nimmer treatise still endorses the overlap-accepting approach, this Article has shown the treatise's analysis of the copyright/utility patent overlap issue is deeply flawed, because it not only rests on significant misrepresentations of the relevant caselaw, but also exhibits a blindness to the many policy considerations that have caused the overwhelming majority of courts and commentators to find ways to treat copyrights and utility patents as operating in separate domains.

Even so, this Article has acknowledged that the Supreme Court has sometimes been reluctant to embrace categorical exclusivity approaches in IP cases. It decided against this approach in *Traffix* as to trade dress designs that had previously been the subject of utility patent protection.²⁴⁶ It was also not persuaded by Borland's categorical exclusivity defense in *Lotus Development Corp. v. Borland*.²⁴⁷ Given this, it may seem risky to raise categorical exclusivity defenses in cases involving copyright claims for what is seemingly patent subject matter. Yet it is worth remembering that the Court in *Mazer* endorsed both *Taylor* and *Brown*, citing them for the proposition that copyright and utility patent protections are "mutually exclusive."²⁴⁸ The Court also did not reject this defense in *Borland*; it just affirmed, by an equally divided Court, the First Circuit's decision that the command hierarchy was an unprotectable method of operation.²⁴⁹ At the very least, however, the existence of utility patents on the same or very similar intellectual creations as that being claimed as copyright subject matter should, in keeping with the Court's approach in *Traffix*, be considered strong evidence that the creation is too functional to be protectable by copyright law.

In closing, it is worth noting that in the past two hundred-some years, there has been no instance in which courts have upheld utility patent and copyright protections in the same aspect of the same intellectual creation.²⁵⁰ In view of this, the copyright/utility patent overlap problem might seem to be of only theoretical interest. This problem is, however, manifestly real and substantial when it comes to articulating the relative roles of patent and copyright law in protecting computer software innovations.²⁵¹ That, however, is a topic for another day.

246 *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23 (2001).

247 Before the Supreme Court, Borland's lawyer rested much of the firm's defense on a categorical exclusivity theory, arguing that computer program command hierarchies and macro systems were not protectable by copyright law because they were utility patent subject matter. See Brief for Respondent at 22-37, *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 516 U.S. 233 (1996) (per curiam) (No. 94-2003). The Court split 4-4 in *Borland*, 516 U.S. 233.

248 *Mazer v. Stein*, 347 U.S. 201, 215 n.33 (1954).

249 *Borland*, 516 U.S. 233.

250 Graco may not have won its motions to dismiss or for summary judgment in the litigation with Kohus, but there was no ruling that Graco, in fact, infringed Kohus's copyright. *Kohus v. Graco Children's Prods. Inc.*, 13 F. Supp. 3d 829 (S.D. Ohio 2014).

251 See, e.g., *supra* note 139. Collins suggests that the copyright/utility patent boundary issue may also be quite troublesome in respect of architectural works. See Collins, *Taxonomy*, *supra* note 141, at 2.

