1-1-2012

The Unitary Progress Clause: District of Columbia v. Heller and the Structural Interpretation of the Progress Clause

Joshua I. Miller

Follow this and additional works at: http://digitalcommons.law.scu.edu/chtlj

Part of the Law Commons

Recommended Citation
Available at: http://digitalcommons.law.scu.edu/chtlj/vol28/iss2/3
THE UNITARY PROGRESS CLAUSE: DISTRICT OF COLUMBIA V. HELLER AND THE STRUCTURAL INTERPRETATION OF THE PROGRESS CLAUSE

Joshua I. Miller†

Abstract

Since around 1950, the Progress Clause of the Constitution has been read in a distributive manner. That is to say, it is read as granting two separate powers: the power to promote the progress of science through copyright, and the power to promote the progress of useful arts through patent. This dichotomy has led to some confusion in certain subject matter areas that span the two regimes, like architectural works, computer programs, and design patents. In addition, because the distributive reading effectively separates copyright and patent, this reading may undermine certain doctrines, such as copyright’s secondary liability or misuse doctrines, which have evolved based on a presumed relationship between the regimes.

The Article extends recent arguments that the Progress Clause should be read as a unified power intended to promote the progress of science and useful arts. Based on the structural similarities of the Second Amendment and Progress Clause, I argue that the structural analysis employed by the Supreme Court in D.C. v. Heller is also applicable to the Progress Clause. Based on the Heller analysis, the

† Law Clerk to the Honorable Nora Barry Fischer, United States District Court for the Western District of Pennsylvania. LL.M. in Intellectual Property Law, The George Washington University Law School, 2011; J.D., the University of Pittsburgh School of Law, 2010. The article is adapted from the author’s thesis, submitted to partially satisfy the requirements of a Master of Laws degree at The George Washington University Law School. That same earlier version of this article received the first place award in the Marcus B. Finnegan Competition for the best paper on an intellectual property topic by a student at The George Washington University Law School. I would like to thank my thesis advisor, John Duffy, for his input, advice, and support. His input has dramatically improved this article. I would also like to thank Michael Madison and Adam Mossoff for providing comments and recommendations and Ken Rodriguez, GWU’s Law Librarian for Intellectual Property Law, for his help finding some of the more obscure sources cited in this paper. Finally, I would like to express my appreciation for the comments and criticisms I received during the October 2011 Washington, D.C. Legal History Roundtable. The opinions expressed herein are solely those of the author. Any mistakes are, of course, my own.
Article concludes that a unitary reading is, indeed, the proper reading of the Progress Clause.
TABLE OF CONTENTS

I. INTRODUCTION ................................................................. 244
II. THE DISTRIBUTIVE READING ........................................... 246
   A. Justice Thompson’s Dissent in Wheaton v. Peters .............. 247
   B. Richard De Wolf and Karl Lutz .................................... 248
   C. Possible Constitutional Justifications for the Modern
      Distributive Reading ................................................. 251
III. THE Heller FRAMEWORK .................................................. 252
   A. The Supreme Court’s Heller Decision ........................... 252
   B. Heller and the Progress Clause ................................... 254
IV. THE HISTORY OF THE PATENT AND COPYRIGHT LAWS .......... 256
   A. Preliminary Observations on the Progress Clause ............ 256
   B. Pre-Ratification History of Patent and Copyright
      Laws ............................................................................ 258
      1. English Precedent ...................................................... 259
         a. “Industrial” Letters Patent and the Statute of
            Monopolies .......................................................... 259
         b. Printing Patents and the Stationers’ Company .......... 262
         c. The Statute of Anne .............................................. 265
         d. Conclusions to be Drawn from English
            Precedent .................................................................. 266
      2. American Precedent ...................................................... 266
         a. Pre-Constitutional Colonial and State
            Progress Laws ......................................................... 267
         b. The Constitutional Convention .............................. 268
         c. Conclusion from American Precedent .................... 270
   C. Early Post-Ratification History of American Patent
      and Copyright Laws ...................................................... 271
      1. Statutory Language ................................................... 271
      2. Statutory Structure ................................................... 273
      3. Judicial Interpretation ............................................... 275
      4. Conclusion to be Drawn from Post-Ratification
         History ................................................................. 277
V. THE UNITARY READING UNDER Heller .............................. 278
   A. The Textual Interpretation .......................................... 278
   B. The Heller Interpretation ............................................. 281
   C. Observations on the Unitary Reading ............................ 284
VI. CONCLUSION ................................................................. 285
I. INTRODUCTION

The Progress Clause of the Constitution gives Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”¹ This Clause is the source of Congress’s power to enact the patent and copyright laws.² The Supreme Court has been turning increasingly to the Progress Clause to answer many important questions in intellectual property law.³

In 1949, Karl Lutz published an influential article that argued that the Progress Clause should be given a distributive reading.⁴ Since that time, the distributive reading has been embraced by scholars, the legislature, and the courts.⁵ The distributive reading extracts two

4. See Karl B. Lutz, Patents and Science: A Clarification of the Patent Clause of the U.S. Constitution, 18 GEO. WASH. L. REV. 50, 51 (1949) [hereinafter Lutz, Patents and Science]; see also Karl B. Lutz, Are the Courts Carrying Out Constitutional Public Policy on Patents?, 34 J. PAT. OFF. SOC’Y 766, 789 (1952) [hereinafter Lutz, Public Policy] (claiming that, if lawyers had looked to history, “they would have found that the word ‘science’ belongs with the copyright clause . . . .”).
separate powers from the Progress Clause.\(^6\) The first is the copyright power: to promote the progress of science by securing for limited times to authors the exclusive right to their respective writings.\(^7\) The second is the patent power: to promote the progress of the useful arts by securing for limited times to inventors the exclusive right to their discoveries.\(^8\)

How the Progress Clause is read dictates the answers to many questions in patent and copyright law. For example, the distributive reading’s requirement that patents only apply to useful arts has contributed to the denial of patent protection for some computer programs\(^9\) and business methods.\(^10\) With respect to copyright, the “functional” aspects of otherwise clearly expressive works have been denied protection, in some cases resulting in the entire work being denied copyright protection.\(^11\)

This article responds to Lutz’s arguments. Through historical and constitutional examination, the article concludes that the distributive reading is not correct. To this end, it extends the arguments first put forth by Professor Dotan Oliar, wherein he suggests that the current reading of the Progress Clause “rests on shaky grounds,”\(^12\) and describes the reading as “indefensible.”\(^13\)

\(^6\) See Lutz, Patents and Science, supra note 4, at 51.
\(^7\) Id.
\(^8\) Id.
\(^9\) Compare Gottschalk v. Benson, 409 U.S. 63, 63 (1972), and Parker v. Flook, 437 U.S. 584, 584 (1978) (both denying protection to computer program algorithms), with Diamond v. Diehr, 450 U.S. 175, 175 (1981) (granting patent protection to a computer program that resulted in a physical transformation of rubber).
\(^10\) Although the Supreme Court’s majority opinion in Bilski v. Kappos, 130 S. Ct. 3218 (2010), did not directly address the Constitution, the decision is clearly rooted in the current understanding that patent law is limited to “useful arts.” The Court declined to grant patent protection to a business method because it was an “abstract idea.” Id. at 3230. However, the Court also implicitly recognized that a business method clearly falls within the language of the Patent Act. See id. at 3226 (acknowledging that the statutory definition of “process” is quite broad). If not due to the statutory language, the restriction against patenting abstract ideas must be constitutional.
\(^11\) See Lotus Dev. Corp. v. Borland Int’l, Inc., 49 F.3d 807, 815 (1st Cir. 1995) (denying protection to plaintiff’s work because it was an uncopyrightable “method of operation”); Brandir Int’l, Inc. v. Cascade Pac. Lumber Co., 834 F.2d 1142 (2d Cir. 1987) (denying copyright protection to a bicycle rack where the expressive elements were dictated by “utilitarian” considerations).
\(^12\) Oliar, Convention, supra note 5, at 469.
\(^13\) Dotan Oliar, Making Sense of the Intellectual Property Clause: Promotion of Progress as a Limitation on Congress’s Intellectual Property Power, 94 GEO. L.J. 1771, 1823
Instead, he proposes what I refer to herein as the “unitary reading” of the Progress Clause. Under this reading, “science” and “useful arts” are not the separate domains of copyright and patent as they are under the dominant reading today. Rather than suggesting that the unitary reading is simply the better solution, however, I suggest that the Supreme Court’s recent analysis of the Second Amendment in *District of Columbia v. Heller*\(^\text{14}\) actually mandates the reading Professor Oliar suggests.

The *Heller* decision was driven by a combination of historical and structural analysis. As this Article explains, the structural similarities between the Second Amendment and the Progress Clause warrant the application of the *Heller* framework to the Progress Clause. Based on this conclusion, the Article then engages in the same historical/structural analysis as the Supreme Court did in *Heller*. The Article then offers some observations based on this analysis.

The Article proceeds as follows. Part II describes the history and emergence of the distributive reading, and explains its theoretical grounding. Part III discusses how the Supreme Court’s recent analysis of the Second Amendment applies to the Progress Clause. Part IV presents the history of the progress laws, and Part V describes how this history, under any mechanism of constitutional construction, yields the conclusion that the unitary reading is the most appropriate reading of the Progress Clause. Part VI concludes.

II. THE DISTRIBUTIVE READING

The first mention of the distributive reading of which the author is aware was made by Justice Marshall in *Evans v. Jordan*.\(^\text{15}\) Justice Marshall’s reference is made without citation or explanation, so its basis is difficult to ascertain. The next mention, and first with explanation, was made in passing, in the dissent of a mid-nineteenth century Supreme Court copyright decision.\(^\text{16}\) Despite this deep history, the dominance of the distributive reading of the Progress Clause is a relatively recent development in patent law.\(^\text{17}\) It appears to have gone unmentioned after that Supreme Court decision in 1834.

---


\(^{15}\) Evans v. Jordan, 8 F. Cas. 872, 873 (C.C.D. Va. 1813). Because this case offers the distributive reading without explanation, it does little to help explain the basis for the reading.


\(^{17}\) See Oliar, *Convention, supra* note 5, at 463-64 (describing Lutz, *Patents and Science*, *supra* note 4, as the article that initially observed the distributive reading).
until it was once again proposed in 1925. Even then, the distributive reading went largely unrecognized by the legal community.

The distributive reading, in its present form, “was propagated by an influential article and consequently adopted by practically all members of the legal community . . . and has become the accepted wisdom regarding the textual structure of the Clause.” This Part traces the evolution of the theory from its roots to its final form in order to ascertain the interpretive underpinnings of the distributive reading.

A. Justice Thompson’s Dissent in Wheaton v. Peters

Justice Thompson first explained the distributive reading in his dissent in the famous 1834 Supreme Court copyright decision Wheaton v. Peters. He addressed the debate over the definition of the word “securing” in the Progress Clause. The discussion revolved around whether copyright was entirely statutory, or whether there was a common law copyright in the United States. The Court held that there was a common law right to unpublished works, but that there was no such right in published works.

Justice Thompson used the “distributive” reading of the Progress Clause to distinguish between the origins of copyright and patent. His proposition seems largely rooted in the fact that patent and copyright were legislated differently from the outset.

19. See Olliar, Convention, supra note 5, at 463-64.
20. Id.
22. See generally id.
23. See generally id.
24. See id. at 657.
25. Id. at 661 (“Congress, then, by this act, instead of sanctioning an existing right, as contended for, created it.”).
26. See id. at 684 (Thompson, J., dissenting).

It has been argued at the bar, that as the promotion of the progress of science and the useful arts, is here united in the same clause in the constitution, the rights of authors and inventors were considered as standing on the same footing; but this, I think, is a non sequitur.

Id.

27. See id. (“The Progress Clause is to be construed distributively, and must have been
Thompson believed that the statutes themselves spoke to a difference between the laws. The statutes indicated that patent law was created solely by statute, whereas the copyright laws merely secured an existing right.

B. Richard De Wolf and Karl Lutz

The next step in the evolution of the distributive reading, taken almost a century after the first, went relatively unnoticed. In 1925, Richard De Wolf made an observation “which appear[ed] not to have had the attention of any court.” He noted that the Progress Clause was “an example of the balanced style of composition so much used in the days of the colonial worthies.” Further, he said, the word “science,” as used when the Constitution was adopted, meant learning generally, not the natural sciences we think of today. Based on the language and structure of the Progress Clause, De Wolf concluded that it must have been intended to provide separately for science and useful arts.

Although De Wolf’s proposal went largely unnoticed, the distributive reading was apparently more appealing in 1949. That year saw the publication of the first of a pair of influential articles by Karl B. Lutz that would lead to the emergence of the distributive reading as the “accepted wisdom regarding the textual structure of the clause.”

Lutz presented the distributive reading with the same justification as De Wolf—namely, the balanced sentence. He added further support to his reading by noting that Thomas Jefferson had himself used the word “science” to mean general learning, albeit after

so understood; for when congress came to execute this power by legislation, the subjects are kept distinct, and very different provisions are made respecting them.

28. See id.
29. Id. Justice Thompson argues that then-current patent statutes “clearly imply that the whole exclusive right is created by the [statute]”. Id.
30. Id. at 685 (“All the laws on [copyright] purport to be made for securing to authors and proprietors such copyright.”).
31. DE WOLF, supra note 18, at 14.
32. Id. at 15.
33. See id.
34. See id.
35. The pair of articles comprised Lutz, Patents and Science, supra note 4, and Lutz, Public Policy, supra note 4.
36. See Oliar, Convention, supra note 5, at 463-64 (describing the Lutz articles as the impetus for general adoption of the distributive reading).
37. See Lutz, Patents and Science, supra note 4, at 51.
the signing of the Constitution. Under the balanced sentence structure, then, copyright was intended to promote the progress of learning in general while patent was intended to promote the progress of the useful arts.

Lutz further supported his argument on the basis of an abandoned bill of unknown substance from the first session of Congress, which had a title identical to the language of the Progress Clause. The bill passed on its first reading, but died at the adjournment of the first session. At the opening of the second session of Congress, it was decided that the copyright and patent laws would be provided for separately, and this separation is offered by Lutz as justification for the distributive reading of the Progress Clause.

Lutz continued in this vein, offering several other observations in order to account for the distributive reading he proposed. For example, Representative Burke stated that copyrights could be easily dealt with, as it was easy to acquire literary property. Inventions, on the other hand, were not as simple a subject as copyrights.

Lutz also examined the legislative history of the patent laws over the next century. He observed that “Congress only once . . . included the word ‘science’” in the patent laws, and this inclusion was accidental. This statement, however, is simply incorrect: the word “science” occurred once in the 1793 Patent Act, which replaced the original Act passed only three years earlier, and it appeared twice in the 1836 Patent Act. The 1836 amendment not only retained the original reference to “science,” but also added an additional reference. This tends to indicate that the inclusion of the word “science” was not the accident Lutz contends. Lutz further stated that no evidence from the Constitutional Convention indicated that patents

38. Id. at 51-52 (noting that Jefferson had, in 1799, referred to “government, religion, morality, and every other science.”) (emphasis added).

39. Id. at 52. This bill was designated H.R. 10 but no further information about the bill is available from direct sources. Edward C. Walterscheid, Charting a Novel Course: the Creation of the Patent Act of 1790, 25 AIPLA Q.J. 445, 462-63 (1997).

40. Lutz, Patents and Science, supra note 4, at 52.

41. Id.

42. See id.

43. See id.

44. See id. at 53.

45. Id.


48. See id.
were intended to extend from the “traditional field” of useful arts into “science.”

Given the timing of Lutz’s publication, it seems quite plausible that this widespread acceptance—after the same position had been put forth twice before—was rooted largely in the prevailing anti-patent sentiment of the period. Perhaps the acceptance of this reading at this point in time should have been questioned, as the courts of this era were notorious for their anti-patent sentiment. Justice Jackson described the general disposition best: “the only patent that is valid is one which the Supreme Court has not been able to get its hands on.”

Justice Jackson was not exaggerating. From around the mid-1930s to around 1950, the Supreme Court found patent after patent invalid. The Court even made sure to open the door to the government invalidating patents under the guise of actions under the Sherman Antitrust Act, even though the “issue need not be decided to dispose of the case” in which that door was opened.

49. Lutz, Patents and Science, supra note 4, at 54.
   Certainly there is nothing in the historical background to provide the Constitutional Convention with a motive for suddenly expanding the Anglo-American concept of patents to include “science” as we use that term today. Lacking such evidence, we must assume that the Convention intended to have patents stick pretty closely to their traditional field as included in the phrase “useful arts.”

Id. As discussed below, this statement is not entirely correct. There is indeed evidence from the Constitutional Convention and shortly thereafter that implies an intention that copyrights and patents both be used to encourage the progress of science and the useful arts. See infra Part III.B.


53. See United States v. United States Gypsum Co., 333 U.S. 364, 387 (1948). U.S. Gypsum had admitted at the trial level that the challenged licensing agreement would violate the Sherman Act if its patents were invalid. Id. at 386. The government sought to amend its complaint to allege invalidity, and the trial court had ruled that the government could not do so. Id. at 387. Although the Supreme Court felt the issue “need not be decided,” it still decided the issue—and held that the government can attack the validity of patents it had issued. Id.
The distributive reading inherently restricts the scope of patent law by withdrawing “science” from its protection. Given the judicial sentiment against strong patent rights, general acceptance of a Constitution-based doctrine that withdrew “science” from patent’s protection should come as no surprise. And it should come as no surprise that the justifications of a popular theory were accepted with little examination. Although the De Wolf and Lutz arguments were limited to patent, it should be noted that, under their reading, the converse was true as well: copyright could not protect useful arts.

C. Possible Constitutional Justifications for the Modern Distributive Reading

Justice Thompson’s reading was based in the statutory provisions for the two laws rather than the constitutional language authorizing them.\(^54\) He did not question the intent of the Framers, but instead examined the legislature’s understanding of the Progress Clause.\(^55\) He seemingly found enough support in the statutory separation of the two laws to necessitate a distributive reading under a form of original understanding.

De Wolf’s argument was rooted in the language and sentence structure used by the Framers.\(^56\) He presumed that, since the balanced sentence was “so much used” at the time of the framing of the Constitution, the Framers must have intended the Progress Clause be read in distribution.\(^57\) The Framers’ use of the word “respectively” seems to support De Wolf’s reading, as it indicates that authors and inventors are linked exclusively to writings and discoveries. Further, they had used distinguishable terms—science and useful arts—to draw a line between what should be protected by copyright and what should be protected by patent.\(^58\)

Justice Thompson’s examination of the understanding of the Clause and De Wolf’s intent-based argument were seemingly unpersuasive on their own, as the distributive reading was not widely adopted after either presentation.\(^59\) Lutz’s conclusion was merely a combination of the two prior justifications for the distributive reading. Although unpersuasive on their own, when combined by Lutz, at the


\(^{55}\) See id.

\(^{56}\) DE WOLF, supra note 18, at 15.

\(^{57}\) See id.

\(^{58}\) See id. at 15-16.

\(^{59}\) See Oliar, Convention, supra note 5, at 463-64.
time he combined them, these two arguments became the basis for the generally accepted reading of the Progress Clause.\(^{60}\) These two justifications are, admittedly, persuasive.

Given this combination, this article therefore proceeds under the presumption that some combination of original intent and original understanding forms the basis for the modern-day distributive reading. As shown in the next Part, recent Supreme Court constitutional jurisprudence casts doubt on the propriety of this simplified historical analysis. After proposing a structure-based framework for interpreting the Progress Clause, this Article will present the argument that the unitary reading of the Progress Clause is in fact the correct reading.

III. THE \textit{Heller} Framework

Although there is sufficient evidence in the historical record to support the unitary reading under the Lutz framework,\(^{61}\) this Part presents a novel explanation of how the structure of the Progress Clause should affect our understanding of the Clause. Based on the similarities between the Second Amendment and the Progress Clause, the Supreme Court’s interpretation of the Amendment should inform the analysis of the Progress Clause. This Part only explains why the Second Amendment analysis should apply; Part V actually engages in the analysis.

A. \textit{The Supreme Court’s Heller Decision}

The Second Amendment provides that “[a] well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.”\(^{62}\) In \textit{Heller}, the Supreme Court observed that the Second Amendment could be rephrased, “Because a well regulated Militia is necessary to the security of a free State, the right of the people to keep and bear Arms shall not be infringed.”\(^{63}\)

Read this way, it is easy to see what the Court recognized: the Second Amendment is actually divided into two separate parts.\(^{64}\)

\(^{60}\) \textit{See generally} Lutz, \textit{Patents and Science}, supra note 4, at 51.

\(^{61}\) \textit{See infra} Part IV (arguing that historical evidence demonstrates that the Progress Clause was likely both originally intended and originally understood to be given a unitary reading).

\(^{62}\) U.S. \textit{CONST.} amend. II.


\(^{64}\) \textit{See id.}
Court referred to these parts as the “prefatory clause” and the “operative clause.” The operative clause gives a command, while the prefatory clause “does not limit the latter grammatically, but rather announces a purpose.” The Court called this structure “unique in our Constitution.”

The Court concluded that the Amendment’s structure should be used as an interpretive tool. Logically, there must be some connection between the two clauses. This connection means that the prefatory clause may only resolve ambiguities in the operative clause; it may not limit or expand the scope of the operative clause. This concept of limiting a preamble to an explanatory role was established as early as 1716 and was still well recognized in America throughout the nineteenth century.

From this background, the Supreme Court developed a framework for analysis of the Second Amendment. The Court began its analysis of the text with the language of the operative clause. Once the Court determined the meaning of the operative clause, it examined the prefatory clause to “ensure that [the Court’s] reading of the operative clause is consistent with the announced purpose.” For both clauses, the Court examined historical evidence to determine the ordinary meaning of the language. Thus, the Court’s analysis comprised three steps: (1) determining the meaning of the operative language; (2) determining the meaning of the prefatory language; and (3) ensuring that the two interpretations are consistent.

65. Id.
66. Id.
67. Id.
68. See id.
69. See id. ("Logic demands that there be a link between the stated purpose and the command.").
70. See id. at 577-78 (The requirement of a logical connection “may cause a prefatory clause to resolve an ambiguity in the operative clause . . . . But apart from that clarifying function, a prefatory clause does not limit or expand the scope of the operative clause.").
71. See Copeman v. Gallant, (1716) 24 Eng. Rep. 404 (Ch.) 407 (“I can by no means allow of the notion, that the preamble shall restrain the operation of the enacting clause.").
72. See JOEL BISHOP, COMMENTARIES ON THE WRITTEN LAWS AND THEIR INTERPRETATION § 51, p. 49 (1882). The force of the rule in favor of the operative clause was reduced in England in 1826, but in America, “the settled principle of law is that the preamble cannot control the enacting part of the statute in cases where the enacting part is expressed in clear, unambiguous terms.” 2A NORMAN J. SINGER & J.D. SHAMBEY SINGER, SUTHERLAND STATUTORY CONSTRUCTION § 47.04, at 146 (7th ed. 2007).
73. See Heller, 554 U.S. at 578.
74. Id.
75. See id. at 576.
This Article does not repeat the Supreme Court’s historical review. It is sufficient to say that the Court looked beyond American history, to English precedent from as far back as the 17th and early 18th centuries, in order to ascertain the meaning of the relevant phrases in the Second Amendment.

B. Heller and the Progress Clause

The Supreme Court’s claim that the structure of the Second Amendment is “unique in our Constitution” is only correct insofar as the Amendments are concerned. There is one other provision that shares a similar structure: even Second Amendment scholars have noted that the Progress Clause shares this structure. Intellectual property scholars and commentators echo substantially the same sentiment. They have observed that the Progress Clause is unique among congressional powers because it is the only power that specifically states its purpose, or conversely, that it is the only power that specifies how that power is to be exercised.

76. See id. at 592-93 (considering the 1671 Game Act); accord, e.g., id. at 582 (considering English law from 1689); id. at 592 (considering the 1689 Declaration of Rights); id. at 587 n.10 (citing J. BRYDALL, PRIVILEGIA MAGNATUD APUD ANGLOS 14 (1704)); id. at 587 n.10 (citing J. BOND, A COMPLEAT GUIDE TO JUSTICES OF THE PEACE 43 (1707)); id. at 578 n.3 (citing Copeman, 24 Eng. Rep. at 407).

77. See JOHN HART ELY, DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW 95, 227 n.77 (1980) (noting in a discussion of the Second Amendment that in the Progress Clause, “as almost nowhere else the framers and ratifiers apparently . . . [chose] explicitly to legislate the goal in terms of which the provision was to be interpreted.”); see also LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 299 n.6 (2d ed. 1988) (noting that purposive language of the Second Amendment is almost unique in the Constitution, and that “the only other such language appears in the copyright clause”). Cf. Eugene Volokh, The Commonplace Second Amendment, 73 N.Y.U. L. REV. 793, 793-94 n.1 (1998) (noting that the Progress Clause has a similar structure, but distinguishing it because the Progress Clause “deals with congressional powers rather than individual rights, and because the grammatical relationship between its subclasses is significantly different” from those of the Second Amendment).

78. See Christina Bohannan & Herbert Hovenkamp, IP and Antitrust: Reformation and Harm, 51 B.C. L. REV. 905, 918 (2010) (“The purpose of patent and copyright legislation is to ‘promote the progress of science and useful arts.’”); see also Case Comment, Second Circuit Upholds Perpetual Anti-Bootlegging Protection Against Copyright Clause Challenge—United States v. Martignon, 492 F.3d 140 (2d Cir. 2007), 121 HARV. L. REV. 1455, 1460 (2008) (describing the Progress Clause as “unique among the enumerated powers of Article I, Section 8, in that its purpose is contained within its text: ‘To promote the Progress of Science and Useful Arts.’”); accord, e.g., 1 HOWARD B. ABRAMS, THE LAW OF COPYRIGHT § 1:18 (2010); Jeffrey M. Kuhn, Information Overload at the U.S. Patent and Trademark Office: Reframing the Duty of Disclosure in Patent Law as a Search and Filter Problem, 13 YALE J. L. & TECH. 90, 92 (2010-2011).

It should be noted that these provisions are not identical: the Progress Clause is not exactly comprised of a prefatory and an operative clause. Technically, because the power granted by the Clause is “to promote the Progress of Science and useful Arts,” that provision both gives a command and announces a purpose.80 Still, the first provision of the Progress Clause—like the Second Amendment’s prefatory clause—announces a purpose: to promote the progress of science and the useful arts.81 Likewise, the second provision of the Progress Clause—the “securing” clause—explains how to achieve that purpose. To that end, the second provision gives a command on how to achieve the purpose of the first provision.

Given the structural similarities between the two provisions, I propose that the Heller framework should be applied to the Progress Clause. It is therefore proper to look first to the “operative” language in the Progress Clause. This language states that Congress may “secur[e] for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”82

After determining the meaning of that language, the analysis turns to the prefatory clause. This language states that the purpose of the Progress Clause is “[t]o promote the Progress of Science and useful Arts.”84 The prefatory clause can only be used to clarify ambiguity; it cannot be used to expand or contract the scope of the operative language. After presenting historical evidence relevant to the Progress Clause in Part IV, Part V of this article will discuss the

80. See supra notes 75-77 and accompanying text.
81. Arguably, all the powers provided for in Article I, Section 8 specify their purpose. For example, the purpose of the commerce clause is clearly for Congress to regulate commerce. See Tribe, supra note 77, at 298; Bohannan & Hovenkamp, supra note 78, at 917-18.
82. Although I acknowledge that the two sub-clauses in the Progress Clause are not exactly prefatory and operative, I retain that language for the purposes of this paper so that I may refer to the Heller analysis. Thus, the “operative” language of the Progress Clause is the “securing” provision, and the “prefatory” language is the purposive provision.
84. Id.
application of the *Heller* framework to this evidence.

IV. THE HISTORY OF THE PATENT AND COPYRIGHT LAWS

This Part engages in a historical analysis of the prefatory language of the Progress Clause. This analysis is applicable to both the originalism-based argument championed by Lutz, as well as the structure-centric *Heller* framework. The first section presents some preliminary observations to frame the remainder of the historical analysis. After these observations, I present and analyze the historical evidence.

A. Preliminary Observations on the Progress Clause

Before delving into the historical analysis, it is important to clarify the meanings of several constitutional terms as they are used in this article. This Section makes several observations in order to establish the definitions of the six terms relevant to the analysis. These terms are science, useful arts, authors, inventors, writings, and discoveries. As this Section explains, all six terms will be used exactly as they are in the distributive reading.

There is little dispute that authors and inventors are directly tied to writings and discoveries. The Clause appears to dictate, through the use of the word “respective,” that authors are associated with writings and inventors with discoveries. This understanding is further borne out by the terms themselves. “One who writes” and “author,” for example, were synonymous at the time of the Framing. Discoveries were likewise closely related to inventors.

The problem, however, is that none of these terms are susceptible to a concrete definition. Inventions, for example, could be literary works—the creations of authors. Similarly, author is defined

---

85. I note here that, where Professor Oliar generally limited his historical review to the Constitutional Convention, see generally Oliar, *Convention, supra* note 5; Oliar, *Making Sense, supra* note 13, I expand my review to include early English precedent in accord with *Heller*. See *supra* note 76 and accompanying text.
86. See Oliar, *Convention, supra* note 5, at 464.
87. See U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to secure “to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”).
88. See *NOAH WEBSTER, A COMPENDIOUS DICTIONARY OF THE ENGLISH LANGUAGE* 354 (1806) (defining “writer” as “one who writes, an author”).
89. See id. at 87 (defining “discovery” as “the act of discovering, an invention”); id. at 164 (defining “invention” as “a contrivance, discovery, device”).
90. See *NOAH WEBSTER, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE: INTENDED TO EXHIBIT: I. THE ORIGIN, AFFINITIES AND PRIMARY SIGNIFICATION OF ENGLISH WORDS, AS FAR AS THEY HAVE BEEN ASCERTAINED. II. THE GENUINE ORTHOGRAPHY AND
at times as something very close to inventor.\textsuperscript{91}

Any attempt to define these operative terms is beyond the scope of this article, so the article will instead operate under a broader treatment of the language. In accord with the distributive reading, the article presumes that “authors” and “writings” appropriately fall under the scope of copyright, while “inventors” and “discoveries” are appropriate subjects of patent law. The Clause has always been read in this manner.\textsuperscript{92} This article therefore declines to define the operative language in more concrete terms than to say that the language speaks to copyright and patent, just as it does under the distributive reading.

This Article also uses the prefatory terms, “science” and “useful arts,” in exactly the same manner as they are used in the distributive reading. Lutz explained both of these terms: “science,” at the time of the Framing, meant learning in general.\textsuperscript{93} Meanwhile, “useful arts” referred to what we today refer to as “technology.”\textsuperscript{94} This article operates under these definitions. With these definitions in mind, the \textit{Heller} framework can be somewhat simplified: the operative language need not be reexamined, as the language is already generally understood. Moreover, the Article does not challenge the definitions of the prefatory language. Thus, the only question is what the relationship is between the prefatory and operative language. The remainder of this section analyzes this relationship from a historical perspective.

It is also necessary to address exactly what this Article means when it uses the term “patent,” especially in the historical context. The modern legal term, “patent,” is derived from the English Royal

\textbf{Pronunciation of Words, According to General Usage, or to Just Principles of Analogy. III. Accurate and Discriminating Definitions, with Numerous Authorities and Illustrations. To Which Are Prefixed, an Introductory Dissertation on the Origin, History and Connection of the Languages of Western Asia and of Europe, and a Concise Grammar of the English Language, 907 (1828) (defining “invention” as, among other things, “fiction. Fables are the inventions of ingenious men.”).

\textsuperscript{91} See id. at 131 (defining “author” as “[o]ne who produces, creates, or brings into being . . . .”); id. at 907 (defining “inventor” as “one who contrives and produces anything not before existing.”).

\textsuperscript{92} See Evans v. Eaton, 16 U.S. (3 Wheat.) 454, 486 (1818) (referring to the Progress Clause as the foundation of Congress’s power to grant patents); see also Wheaton v. Peters, 33 U.S. (8 Pet.) 591, 660 (1834) (describing the 1790 Copyright Act as passed in “pursuance” of Congress’s Progress Clause power).

\textsuperscript{93} See Lutz, Patents and Science, supra note 4, at 51.

\textsuperscript{94} Id. at 54 (stating that “useful arts,” as used in the Constitution . . . is best represented in modern language by the word ‘technology’” and defining “technology” as “[a]ny practical art utilizing scientific knowledge, as horticulture or medicine; applied science contrasted with pure science.”).
practice of granting special privileges through open letters known as “letters patent.” A letter patent was a legal mechanism employed by the Crown to grant personal privileges, such as commercial monopolies for printing books or manufacturing commodities, in furtherance of Royal policies, such as promoting the economic development of the English Realm. These letters patent—whether granting indu...
in determining what the public understanding and Framers’ intentions may have been.  

1. English Precedent


In 1331, King Edward III granted the first industrial “letter patent” to John Kempe of Flanders. This and letters patent like it were granted as protection for foreigners willing to come to England to train English subjects in the foreigners’ trades. Kempe, for instance, was a weaver by trade. The patent to Kempe was the first step in a “deliberate and vigorous policy to expand English industry which Edward III and his successors pursued with excellent results.”

British monarchs did not begin issuing letters patent for domestic manufacturing within England until the mid-sixteenth century. The first such domestic industrial patent was granted to Henry Smyth in 1552 for the production of Normandy glass. Following such practice, Queen Elizabeth I granted fifty-five patents during her reign...
over the latter half of the sixteenth century. At least one of these early patents explicitly referred to “science” as the foundation for the protected innovation. Challenges raised to some of these patents foreshadowed modern patent issues. Several cases, for example, implicated what would evolve into questions of novelty and obviousness. As the law evolved, patents became subject to certain conditions. The patentee must: (i) work the patent; (ii) not interfere with established industries; and (iii) train apprentices.

Despite Queen Elizabeth’s efforts at stimulating domestic industry, and her initial adherence to the conditions for patent grant, she began to use the patent power in a manner inconsistent with the original purpose or conditions of patent. As she saw it, “her Prerogative Royall may not be called in question for the validitie of the letters patents.” One of the most egregious

110. Mossoff, Development, supra note 95, at 1261. For a list of patents granted by Queen Elizabeth, see Edward Wyndham Hulme, The Early History of the English Patent System, in 3 SELECT ESSAYS IN ANGLO-AMERICAN LEGAL HISTORY 117, 122-138 (Ass’n of Am. Law Schools ed., 1900) [hereinafter Hulme, Early History].

111. See Hulme, Early History, supra note 110 at 137 (citing Edward Wright’s patent for “[a]nother water-raising device, obtained ‘by long and painful study of the mathematical sciences’”). Admittedly, the actual device is clearly among the “useful arts,” but the fact remains that the patent’s language expressly states that it was a work of science being protected.

112. See, e.g., 17 CHARLES VINER, A GENERAL ABRIDGMENT OF LAW AND EQUITY 210-11 (2d ed. 1793) (citing Mathey’s case, Noy 113). Viner’s Abridgement summarized Matthey’s case thusly:

So where a patent was granted to A. for the sole making of knives with bone hafts, and plates of latton; because, as the patents suggested, he brought the first use thereof from beyond seas; yet nevertheless, when the wardens of the company of cutlers shewed before some of the council, and some learned in the law, that they used to make knives before, though not with such hafts; and that such a slight difference or invention should be no cause to restrain them; thereupon he could never have benefit of this patent, although he laboured very greatly therein.

Id. It is worth noting that the actual date of Mathey’s case is unknown. What is known, though, is that the case addressed Elizabeth’s 25th patent, granted in 1571. See Mossoff, Development, supra note 95, at 1262 n.29. Following Mathey’s case, Bircot’s case resolved that “no old manufacture in use before can be prohibited.” 3 EDWARD COKE, INSTITUTES OF THE LAWS OF ENGLAND 183 (1797).

113. See Mossoff, Development, supra note 95, at 1261.


115. See Mossoff, Development, supra note 95, at 1262.

116. See id. at 1264-65.

117. Walterscheid, Evolution, supra note 114, at 863 (citing E. BURKE INLOW, THE PATENT GRANT 21 (1950)). The quoted text is originally from 32 ACTS OF THE PRIVY COUNCIL.
instances of Queen Elizabeth’s abuse was a patent granted to Edward Darcy in 1598 for the manufacture, importation and sales of playing cards. The King’s Bench held the patent invalid in the landmark case Darcy v. Allen (“The Case of Monopolies”). The basis of that holding was that a patent should not be used to withdraw from general access something already available to the public. This holding was emphasized in another famous case a short time later.

English monarchs continued to abuse the patent power after The Case of Monopolies was decided, and the Statute of Monopolies was enacted in 1623 as a response to the monarchy’s ongoing abuse. The Statute broadly declared monopolies invalid, and this Statute was regarded as “the first and final source of authority” on the subject of patents in England (and its colonies) from the seventeenth century onwards.

The Statute of Monopolies included several exceptions where monopolies might be found valid. The most commonly cited exception with respect to patent law stated that a monopoly could be appropriately granted for the “sole working or makinge of any manner of new Manufactures.” While this exception made it possible for the Crown to continue to grant “industrial” patents through this

---

237 (1601).
118. See Hulme, Early History, supra note 110, at 137-38.
120. See id. at 1139. Allen’s counsel argued:

[W]here any man by his own charge and industry, or by his own wit or invention doth bring any new trade into the realm, or any engine tending to the furtherance of a trade that never was used before; and that for the good of the realm; that in such cases the King may grant to him a monopoly patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealt; otherwise not.

Id. See also id. at 1141 (Allen’s counsel arguing that the patent “doth but take the trade of making and selling cards from many persons, and giveth that trade to one, which is unlawful.”).
121. See The Clothworkers of Ipswich, (1615) 78 Eng. Rep. 147 (K.B.) 148. Holding that the King cannot make a monopoly for that is to take away free-trade, which is the birthright of every subject . . . . [W]hen the trade is become common, and others have been bound apprentices in the same trade, there is no reason that such should be forbidden to use it.

Id.
122. See Ochoa & Rose, supra note 103, at 679; accord Mossoff, Development, supra note 95, at 1270.
123. Statute of Monopolies, 1623, 21 & 22 Jac. 1, c. 3 (Eng.).
125. Statute of Monopolies, 1623, 21 & 22 Jac. I, c. 3, § 6 (Eng.).
exception, the story of patent is not limited to this type of patent, or this exception in the Statute.

b. Printing Patents and the Stationers’ Company

Two other exceptions to the Statute of Monopolies are relevant to the history of the Progress Clause, though it appears that they are not given the same deference as the manufacturing exception in patent scholarship. These exceptions applied to Crown-chartered guilds and to printing patents. The background of these two exceptions is just as pertinent to the Progress Clause as that of industrial letters patent, especially because they arose under the “first and final source” on English patent law but were, in large part, two copyright exceptions. Along with the exception for manufactures, these exceptions were a first step toward both a modern form of intellectual property right and a distinction between patent and copyright.

The Stationers’ Company was one of many Crown-chartered guilds in sixteenth-century London. The history of the guild runs to 1403, but it was not until May 4, 1557 that the Stationers’ Company (“Company”) was chartered. Although the Company’s power was generally limited geographically, its charter gave it nearly a complete monopoly over printing. This power made the Stationers’ Company the “focal point of the history of copyright.” This focus developed through the Stationers’ clever exploitation of two privileges: the “copyright” developed under the Stationers’ charter and the royal printing patent.

Stated succinctly, the Stationers’ copyright was a right recognized by members of the Company that entitled one who published a work to prevent unauthorized printing of the same work. The key point to be taken from the Stationers’ copyright at this juncture is that, after its early years, it became wholly

---

126. Id.
127. See id. at § 9.
128. See id. at § 10.
129. See id. at § 6.
130. As is discussed in the remainder of this section, Sections 9 and 10 of the Statute of Monopolies created exceptions to the ban on monopolies that would eventually evolve into copyright.
131. See LYMAN RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 28 (1968).
132. Id. at 28-29.
133. See id. at 32.
134. Id. at 28.
135. Id. at 43-44.
independent from the printing patent, and that it was a monopoly within the “Crown-chartered guilds” exception to the Statute of Monopolies—the statute typically treated as addressing patent law.

The other relevant exception to the Statute of Monopolies was the exception for printing patents. Despite the Stationers’ efforts to control printing through their copyright, the first book printed with sovereign privilege was printed in either 1512 or 1518. One of these appears to be the first granted printing patent. Notably, both of these domestic English printing patents were granted almost half a century before the Smyth patent, the first domestic English industrial patent.

Printing patents came in two flavors. General printing patents covered entire classes of works, like law books, while a particular printing patent covered a specific work. Particular printing patents therefore limited the reproduction of specific works, such as A B C with the Little Catechism and Cosmographical Glass.

Printing patents were granted under the same royal prerogative as industrial patents, and indeed, there appears to be little to distinguish between the two patents, save their subject matter. Printing patents appear to be merely an aspect of the original patent system, which was intended to encourage industrial development. It can then be said that printing patents, on texts, were used with the purpose of promoting the progress of useful arts.

It appears that this close relationship was recognized by the Stationers’ Company. The Company apparently viewed the playing-

---

136. See THOMAS LINACRE, LINACRI PROGYMNASMATA GRAMMATICES VULGARIA colophon (London, Johan Rastell c. 1512).

137. It seems likely that the Linacre patent was the first. See H. Tomás Gómez-Arostegui, What History Teaches Us About Copyright Injunctions and the Inadequate-Remedy-At-Law Requirement, 81 S. CAL. L. REV. 1197, 1213 (2008) (stating that “[t]he earliest exclusive printing privilege of which there is any record in England” is the Rastell/Linacre patent).

138. The Smyth patent was granted in 1552. See Klitzke, supra note 106, at 629.

139. See id. at 79.

140. See id. at 40.

141. See id. at 79.

142. See id. at 82 (it is “difficult to distinguish the basis of the printing patent from the basis of the industrial patent.”); see also id. at 84.

143. See id. at 82.
cards patent in *The Case of Monopolies* as a printing patent, despite the fact that suit was brought as if the patent was industrial.\textsuperscript{144} This belief was echoed by at least one modern scholar, who called the patent at issue in *The Case of Monopolies* a “fusion” of printing and industrial patents.\textsuperscript{145}

Although printing patents were in fact patents, there was a great deal of overlap between printing patents and copyrights. A 1582 report on printing patents referred to the rights possessed by printing patentees as “Copies.”\textsuperscript{146} The Stationers’ copyright also controlled “copies.”\textsuperscript{147} The major difference was that the printing patent was a copyright granted by the sovereign,\textsuperscript{148} while the Stationers’ copyright was a private copyright.\textsuperscript{149} This distinction resulted in many of the other differences.\textsuperscript{150} Still, the fact remains that the printing patent and the Stationers’ copyright performed essentially the same function on essentially the same subject matter.\textsuperscript{151}

It actually appears that the Stationers’ copyright would not have adequately prevented competitive publication without the printing patent.\textsuperscript{152} Even as the Stationers developed their copyright, they actively pursued legislation that would allow them to patent copies of books.\textsuperscript{153} For a time after the Stationers’ copyright became an established privilege, the printing patent remained the preferred form of protection.\textsuperscript{154} It appears that if patent law had not laid the foundation for copyright, copyright would not exist, at least in the form it does today.

Even after copyright became an established privilege, printing patents were used to prevent unauthorized copying.\textsuperscript{155} Cases frequently arose where the printing patent and Stationers’ copyright

\textsuperscript{144} See id. at 84-85.
\textsuperscript{145} Id. at 84.
\textsuperscript{146} Id. at 36.
\textsuperscript{147} See id. at 46-47.
\textsuperscript{148} Id. at 78.
\textsuperscript{149} Id. at 79.
\textsuperscript{150} See id. at 79.
\textsuperscript{151} See id. at 80.
\textsuperscript{152} See id. at 90-91.
\textsuperscript{153} See id. at 104. In 1584, the Stationers initiated their efforts to convince the Star Chamber to secure protection by legislation. Id. In 1586, a petition was submitted to the Star Chamber entitled “The Arguments of the Patentees in Favour of Privileges for Bookes.” The petition specifically referred to “Authors” and “Copie[s].” Id. at 104-105.
\textsuperscript{154} See PATTERSON, supra note 131, at 78.
\textsuperscript{155} See id.
were held by different parties. In such instances, the printing patent prevailed.

The Stationers’ copyright survived the enactment of the Statute of Monopolies under the exception for Crown-chartered guilds, while printing patents survived under their own exception. This history shows that one of the two English statutes relevant to the Progress Clause actually supported the use of patents to restrict dissemination of literary copies in order to induce industrial development. At its most basic, the printing patent acted as a copyright. Thus, patent was, from its very first domestic use in England, applied to what the Framers called “science,” or what is called “expression” today, yet it was still a patent. Furthermore, patents on expression were understood to promote industrial progress.

c. The Statute of Anne

It is only necessary to briefly address the Statute of Anne here. Unlike the Statute of Monopolies and the associated history, the Statute of Anne provides little insight into the constitutional question at issue. As enacted, the Statute of Anne only applied to the Stationers’ copyright and the new “statutory” copyright created by the Statute.

While it appears that the Statute of Anne was essentially a codification of the Stationers’ copyright that provided a limited term for the copyright, printing patents were not changed by the Statute of Anne. Admittedly, the printing patents were of relatively little importance by the time the Statute of Anne was passed in 1709, but printing patents were still being successfully enforced in the late seventeenth century and they were still being asserted well into the

156. See id.
157. See id.
158. See Statute of Monopolies, 1623, 21 & 22 Jac. I, c. 3, § 9 (Eng.).
159. See id. at § 10.
160. See PATTERSON, supra note 131, at 80.
161. Both the Crown and the Stationers’ Company viewed printing patents as mechanisms for encouraging industrial progress. See id. at 82 (noting that the general purpose of printing patents was to encourage industrial development); cf. id. at 109 (discussing the pooling of printing patents to provide economic incentives to poor members of the Company).
162. See PATTERSON, supra note 131, at 143.
163. See id. at 146-47.
164. Id. at 144.
eighteenth century. As late as 1775, in Carnan’s Case, printing patents were asserted by the Stationers and the defendants asserted a copyright defense to the patent claim. Defendants also referred to patents during their argument. The court, like the Stationers, referred only to patents. All of this shows that there was no bright line between patents and copyrights, even in 1775, just a few short years before the Progress Clause was ratified.

d. Conclusions to be Drawn from English Precedent

There are several important points to be gleaned from this history of English precedent. First is the fact that patent law has, since its beginning, been applied to expressive content. Equally noteworthy is the fact that the first English patent was not an industrial patent but a printing patent, and this patent was intended to promote industry. Printing patents like the first survived unchanged through major patent and copyright legislation. Perhaps most importantly, these patents were still being actively enforced around the time the Constitution was being written. It is therefore unacceptable to ignore the history and existence of printing patents in interpreting the Progress Clause.

2. American Precedent

All of the above demonstrates that there was significant overlap in subject matter between English patents and copyrights. The history of English law supports application of patent law to what the Framers called science, not just the useful arts.

167. See id. at 591-92 (arguing that the asserted patents lacked any “of the true grounds, on which a prerogative copyright can be founded.”).
168. See id. at 592.
169. See id. at 592-93.
170. The first printing patent was granted in the 1510’s. See LINACRE, supra note 136 (claiming a printing privilege in 1512); PATTERSON, supra note 131, at 86-87 (stating that the first printing patent was granted in 1518).
171. PATTERSON, supra note 131, at 82.
172. See Statute of Monopolies, 1623, 21 & 22 Jac. 1, c. 3, §§ 9-10 (Eng.).
174. See infra Part IV.B.1.
UNITARY PROGRESS CLAUSE

a. Pre-Constitutional Colonial and State Progress Laws

The Progress Clause was drafted “against the immediate backdrop of the Articles of Confederation, but within the overall framework of the English, colonial, and state practices regarding patents and copyrights.” 175 Having already discussed the English framework, this Section discusses the colonial and state practices and their relevance to interpretation of the Progress Clause.

Under the Articles of Confederation, the Continental Congress did not have the authority to issue copyrights or patents. 176 After several authors petitioned the Continental Congress on the topic of literary property, 177 a committee was appointed “to consider the most proper means of cherishing genius and useful arts throughout the United States by securing to the authors or publishers of new books their property in such works.” 178 The committee was “persuaded that nothing is more properly a man’s own than the fruit of his study, and that the protection of literary property would greatly tend to encourage genius, to promote useful discoveries, and to the general extension of the arts and commerce.” 179 In response to the committee’s findings, the Continental Congress urged states to secure copyrights to authors or publishers. 180

Some states, including Massachusetts, Connecticut, and Maryland, had adopted copyright laws prior to this Resolution, 181 but

175. Walterscheid, Background, supra note 79, at 3.
176. See Ochoa & Rose, supra note 103, at 686.
177. 24 JOURNALS OF THE CONTINENTAL CONGRESS 326 (Gaillard Hunt ed., 1922) (The May 2, 1783 installment makes note of “sundry papers and memorials from different persons on the subject of literary property” that were submitted to Congress).
179. JOURNALS OF THE CONTINENTAL CONGRESS, supra note 177, at 326 (emphasis added).
180. See Resolution of May 2, 1783, reprinted in COPYRIGHT ENACTMENTS OF THE UNITED STATES 1783-1906 11 (Thorvald Solberg ed., 2d ed. 1906) [hereinafter COPYRIGHT ENACTMENTS]. The Resolution encouraged states:
[T]o secure to the authors or publishers of any new books not hitherto printed . . . the copy right of such books for a certain time not less than fourteen years from the first publication; and to secure to the said authors, if they shall survive the term first mentioned, . . . the copy right of such books for another term of time not less than fourteen years.

Id.
181. See Act of Jan. 29, 1783 (Conn.), reprinted in COPYRIGHT ENACTMENTS, supra note
every state had the authority to exercise copyright laws.\textsuperscript{182} Among those states that adopted copyright provisions, North Carolina’s Copyright Act of 1785 stated in its preamble that the “security of literary property must greatly tend to encourage genius, to promote useful discoveries, and to the general extension of arts and commerce.”\textsuperscript{183} South Carolina took the Resolution a step further by including a general patent law in its copyright statute.\textsuperscript{184} The other states did not do so, instead opting to enact individual patents.\textsuperscript{185}

Although this pre-Constitutional evidence is not conclusive, it does show that the Continental Congress and several of the states thought that copyright could be used to promote the useful arts. Furthermore, the committee appointed to address the copyright issue used several of the constitutional terms—a point that is made more relevant, as will be shown, by the fact that James Madison was one of the committee members.\textsuperscript{186}

\textit{b. The Constitutional Convention}

Further support for a unitary reading of the Progress Clause is found in the Constitutional Convention. Discussions at the Constitutional Convention of what became the Progress Clause may indicate that the Framers intended the clause to be unitary. Because the Progress Clause was not debated after introduction,\textsuperscript{187} much of this section is derived from the background proposals of the two people most closely associated with the intellectual property-related powers: James Madison and Charles Pinckney.

The Federal Convention convened on May 25, 1787 in

\begin{itemize}
\item \textsuperscript{180} 11-13; Act of Mar. 17, 1783 (Mass.), \emph{reprinted in Copyright Enactments, supra note 180}, at 14-15; and Act of April 21, 1783 (Md.), \emph{reprinted in Copyright Enactments, supra note 180}, at 15-16.
\item \textsuperscript{182} See 1 \textsc{George Ticknor Curtis}, \emph{Constitutional History of the United States from Their Declaration of Independence to the Close of Their Civil War} 531 (Joseph C. Clayton ed., 1896) (stating that every state had authority to exercise copyright law).
\item \textsuperscript{183} See Act of Nov. 19, 1785 (N.C.), \emph{reprinted in Copyright Enactments, supra note 180}, at 25.
\item \textsuperscript{184} See Act of Mar. 26, 1784 (S.C.), \emph{reprinted in Copyright Enactments, supra note 180}, at 23 (emphasis added).
\item \textsuperscript{185} See \textsc{Edward C. Walterscheid}, \emph{The Nature of the Intellectual Property Clause: A Study in Historical Perspective} 57-58 (2002).
\item \textsuperscript{186} See \textsc{Journals of the Continental Congress, supra note 176}, at 211. The other members of the committee were Hugh Williamson of North Carolina and Ralph Izard of South Carolina.
\item \textsuperscript{187} See \textsc{Karl Fenning}, \emph{The Origin of the Patent and Copyright Clause of the Constitution}, 17 \textsc{Geo. L.J.} 109, 114 (1929).
\end{itemize}
William Jackson, the Convention’s secretary, recorded an official journal of the proceedings. James Madison kept his own private, more detailed journal as well. These journals agree that intellectual property was not addressed for the first several months of the Convention, and an early draft of the Constitution did not mention it either.

Intellectual property powers were first proposed among a list of twenty powers on August 18, 1787. Several of these powers were quite clearly directed towards improving or encouraging innovation—including those directed at universities, public institutions, and rewards or encouragements for innovation.

Although none of these powers were incorporated into the Constitution, at least in their initial form, they appear to be the basis of the eventual Progress Clause. This is because the Progress Clause essentially provides a desirable purpose (promoting progress) and means for achieving it (by securing rights). This combination of purpose and means does not appear in any single proposed power.

Instead, a combination of the proposals by both Charles Pinckney and James Madison speak to the Progress Clause’s specific combination of purpose and means. Pinckney and Madison each

---

188. Oliar, Convention, supra note 5, at 426.
189. Id.
190. Id.
191. Id.

...To secure to literary authors their copy rights for a limited time
To establish an University
To encourage, by proper premiums and provisions, the advancement of useful knowledge and discoveries...
To establish seminaries for the promotion of literature and the arts and science...

To grant patents for useful inventions
To secure to authors exclusive rights for a certain time
To establish public institutions, rewards and immunities for the promotion of agriculture, commerce, trades, and manufactures.

Id. (italics added).
194. See id.; see also Oliar, Convention, supra note 5, at 447-49.
195. See Oliar, Convention, supra note 5, at 425.
196. See id. at 425; see generally JOURNALS OF THE CONTINENTAL CONGRESS, supra note 177.
proposed separate powers for copyright, patent, education, and encouragement of innovation. Both men’s patent and copyright powers were exceedingly simple, granting Congress the power to secure or grant a right with no other guidance or limitation. With the exception of Madison’s education power, the remaining education and encouragement proposals were all directed at what can readily be described as the promotion of progress of innovation. Pinckney’s proposals included the encouragement of literature, the arts and sciences, agriculture, commerce, trade and manufacture. Madison’s included the advancement of useful knowledge and discoveries.

Based on the evident relationship between these proposals, it seems likely that the Progress Clause was a distillation of all eight of the related powers proposed by Madison and Pinckney. If this is so, it seems inappropriate to completely disjoin copyright and patent from each other as the distributive reading does. Several of the proposed powers were directed at subject matter that clearly spans both copyright and patent. One of the common justifications for patent and copyright is incentivizing innovators, and education clearly speaks to general and technical knowledge. It seems then that copyright and patent, as embodied in the Progress Clause, were intended to work together to promote both science and the useful arts.

c. Conclusion from American Precedent

As with the English precedent, several points can be taken towards understanding the Progress Clause. First is that the Continental Congress—and especially James Madison—believed that the progress of useful arts could be promoted by securing copyright to authors. Second, the initially proposed powers which appear to

197. Oliar, Convention, supra note 5, at 446-47.
198. Madison’s copyright and patent powers, respectively, read: “to secure to literary authors their copyrights for a limited time,” and “to secure to the inventors of useful machines and implements the benefits thereof for a limited time.” Id. at 447. Pinckney’s proposals read: “to secure to authors exclusive rights for a certain time,” and “to grant patents for useful inventions.” Id.
199. See id. at 447; see also Oliar, Making Sense, supra note 13, at 1806.
200. Oliar, Convention, supra note 5, at 447.
201. Oliar, Making Sense, supra note 13, at 1806.
202. See id. at 1805-10.
203. See, e.g., JOURNALS OF THE CONTINENTAL CONGRESS, supra note 177, at 326.
205. See Resolution of May 2, 1783, reprinted in COPYRIGHT ENACTMENTS, supra note
have evolved into the Progress Clause spoke of encouragement of broader scope of subject matter than just science or just useful arts.\(^{206}\) This pre-constitutional history evidences what today might be considered anathema: patent promoting the sciences and copyright promoting the useful arts.

### C. Early Post-Ratification History of American Patent and Copyright Laws

This section turns to the early post-ratification history of the Progress Clause. Because this part of the Progress Clause’s history is relevant to original understanding, it is restricted to a much smaller temporal window. Specifically, this part addresses early progress legislation and judicial interpretations.

1. **Statutory Language**

The first patent and copyright laws were enacted in 1790.\(^{207}\) The Patent Act was entitled “An Act to promote the progress of useful Arts.”\(^{208}\) The Copyright Act was named “An Act for the encouragement of learning, by securing the copies of maps, Charts, And books, to the authors and proprietors of such copies, during the times therein mentioned.”\(^{209}\) The name of the 1790 Patent Act appears to unequivocally support the idea that patents apply only to the useful arts,\(^{210}\) while the 1790 Copyright Act’s title refers to “learning,”\(^{211}\) which might be understood as a reference to science.\(^{212}\)

The patent laws were amended in 1793.\(^{213}\) The 1790 and 1793 laws were largely the same, save for one major change: the 1793 Act amended the written description section of the 1790 Act. Where the 1790 Act required that the written description enable a “person skilled in the art or manufacture” to make the invention,\(^{214}\) the 1793 Act

---

180. at 11.

206. See JOURNALS OF THE CONTINENTAL CONGRESS, supra note 177, at 326.

207. See Patent Act of 1790, ch. 7, 1 Stat. 109 (1790); Copyright Act of 1790, ch. 15, 1 Stat. 124 (1790).


209. Copyright Act of 1790, ch. 15, 1 Stat. 124.

210. Titles can be used to assist in understanding a statute. See Brotherhood of R.R. Trainmen v. Baltimore & Ohio R.R. Co., 331 U.S. 519, 528-29 (1947) (Stating that titles or headings are to be considered in resolving ambiguity but “cannot limit the plain meaning of the text.”).

211. Copyright Act of 1790, ch. 15, 1 Stat. 124.

212. See Lutz, Patents and Science, supra note 4, at 51.


required it to enable a “person skilled in the art or science” to make the invention.\footnote{215} 

The addition of “science” to the written description provision is important for two reasons. First, the amendment essentially used the language of the entire preamble to the Progress Clause, rather than just a portion of it.\footnote{216} The short life of the 1790 Act, added to the fact that one of the few substantive changes was to replace “manufacture” with “science,”\footnote{217} indicates either that the legislature saw this as an important amendment or, at a minimum, that they viewed “science” and “manufacture” as analogous. 

Second, the structure of the section referring to “science” indicates a view of science as part of the patent regime. The language of that section makes clear that the thing invented or discovered is an “art, machine, or improvement.”\footnote{218} However, the invention is promoting an “art or science.”\footnote{219} 

While the early copyright acts did not refer to “science” in a manner similar to the patent law’s reference to useful arts, the Copyright Act of 1802 did use constitutional language: it protected any person “who shall invent . . . historical and other prints” or who “from his own works and inventions” caused the same to be made.\footnote{220} Copyright continued to refer to invention in copyright laws until 1905.\footnote{221} 

Although the 1836 Patent Act was much further removed from the ratification of the Constitution, and is therefore of less value in ascertaining original understanding, it is still one of the next most recent pieces of legislation in determining this original understanding of the Progress Clause. Like the 1790 Patent Act before it, the 1836 Act explicitly referred to “science” in its written description section.\footnote{222} It also added a second reference, this time in the context of

\footnotesize{\bibliography{miller}}
a board of examiners, which were to be selected for their “knowledge and skill in the particular art, manufacture, or branch of science to which the alleged invention appertains.” 223 It follows that, if experts were to be chosen for their skill in particular sciences, promotion of the progress of those sciences was among the objectives of the patent laws. In the context of the Progress Clause, this shows the application of the operative patent to both prefatory objects.

2. Statutory Structure

The observation that the copyright and patent laws are governed by distinct statutes is irrefutable. However, the mere separation of these two statutory regimes does not necessarily support a distributive reading of the Progress Clause as proposed by Justice Thompson and Karl Lutz. Instead, a more likely justification for their separation lies in the different standards for creation and enforcement of the rights. It is likely that the statutory distinction was dictated by policy concerns such as limiting the need for judicial interpretation, clarifying the differing standards between the two properties, and statutorily establishing the boundaries of the two rights.

It is prudent to begin with the proposition that the two laws are meant to serve the same purposes224 and they do so in similar ways. 225 Despite the similarities at their ends—the purpose in the beginning, and the means of enforcement at the end—the two laws have very different intermediate concerns. Novelty and the scope of the exclusive rights conferred, for example, are justifiably very different between the two regimes. The recognition of this distinction by early congressmen is hardly enough to prove that the Progress Clause was intended to be read in the distributive.

These concerns better explain the existence of separate statutory schemes for each than does the distributive reading of the Progress Clause.

223. Id. at § 7.
224. See U.S. CONST. art. I, § 8, cl. 8 (stating that Congress shall “promote Progress”); see also Lemley, supra note 204, at 993 (“Intellectual property is fundamentally about incentives to invent and create.”); O’Rourke, supra note 204, at 1180 (“[B]oth the copyright and patent laws have grappled with the question of how to safeguard the incentive inherent in the grant of exclusive rights . . . .”); John Shepard Wiley Jr., Copyright at the School of Patent, 58 U. Cin. L. REV. 119, 119 (1991) (“[T]he two laws perform the same function. . . . [N]o partisan recommends one goal for patent and another for copyright.”).
Clause. Copyright accrues upon the satisfaction of minimal creativity and is subject to several limitations. Patent, on the other hand, requires satisfaction of more stringent novelty standards, but provides much stronger protection upon accrual under expansive doctrines like the doctrine of equivalents. A given patent, then, can exert a stronger force on related works than can a given copyright.

Admittedly, many of these issues may not have been fully understood at the framing of the Constitution. However, the very evidence that Lutz used to support the distributive reading shows that the roots of these issues were understood. Rep. Burke wished to “take care of copyrights immediately . . . because it is almost as easy to ascertain literary as any other kind of property.” He recognized patents were a more difficult subject. The difficulty that Burke recognized seemingly had little effect on the passage of the bills. The two original Progress bills were passed less than eight weeks apart.

Surprisingly, especially if Burke’s statements are given the weight afforded them by Lutz, the copyright bill was not the first passed; patent was.

Burke’s statement that patent would require more discussion than copyright seems to indicate that he was at least generally cognizant of the differing concerns. It is also worth noting that Burke was a Representative from South Carolina—the only state to pass patent legislation under the Articles of Confederation. It is likely that, as a Representative and one-time judge of that state, Burke was quite aware of the distinguishing issues that the two laws faced.

227. See Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co., 520 U.S. 17, 24 (1997) (holding that the test for equivalence is “whether the substitution [of one element for the other] . . . is a change of substance as to make the doctrine of equivalents inapplicable; or conversely . . . whether the change was so insubstantial” that doctrine of equivalents applies); see also Graver Tank & Mfg. Co., Inc. v. Linde Air Prods. Co., 339 U.S. 605, 608 (1950) (doctrine of equivalents may be invoked if a device "performs substantially the same function in substantially the same way to obtain the same result.").
228. See Lutz, Patents and Science, supra note 4, at 52.
229. See id.
231. Id.
232. Lutz, Patents and Science, supra note 4, at 52.
This shows that the first Congress had many concerns in mind while drafting the first copyright and patent acts. It is quite possible that a grammatical quirk in the Progress Clause was one of these concerns, but the recognized difficulty in developing a statute to properly guide the judiciary in the fields of patent and copyright law implies that Congress was aware of the need for different standards for each. Congress’s recognition of these policy concerns explains the separation of copyright from patent at least as adequately as does a grammatical argument. It does not, however, indicate on its own that the Framers intended for the Progress Clause to be read in distribution.

3. Judicial Interpretation

In the first half of the nineteenth century, courts cited the written description provision’s enablement clause in two different ways. Sometimes they quoted the entirety of the provision, including the term “science”.235 Other times, courts cited to the statute, but referred only to the person skilled in the art.236 Some courts referred interchangeably to persons skilled in the art and persons skilled in the art or science.237 That citations in both forms were frequently made by the same courts over an extended period of time, and even made in the same decisions at times,238 suggests that rather than a developing aversion to science as patent-eligible subject matter, reference only to those skilled in the art was merely a shorthand citation form. It does not appear to be a shift in the judicial understanding of the Progress Clause, and certainly no reference was made to a balanced reading.

Cases addressing expert witnesses are also particularly informative. What today is called “mechanical engineering” was frequently referred to as “mechanical science” in early patent cases.239 One court went so far in its discussion as to place science prominently alongside things freely accepted today as patent eligible useful arts.


237. See, e.g., Hogg, 47 U.S. at 462, 484; Raymond, 31 U.S. at 219, 226.

238. See Raymond, 31 U.S. at 226 (referring to one “skilled in the art or science”). But see id. at 239 (referring to one “skilled in the art”).

239. See, e.g., Parker, 18 F.Cas. at 1176; Foote v. Silsby, 9 F.Cas. 373, 380 (C.N.D.N.Y. 1849); Blunt, 1 F.Cas. at 450; Brooks v. Jenkins, 4 F.Cas. 275, 280 (C.C. Ohio 1844) (all referring to mechanical sciences).
including physics and chemistry.  

Justice Story provided one of the most detailed discussions in this area. It is worth noting from the outset that the Justice’s discussion comes from a case handed down in 1845. It is therefore not truly contemporaneous with the Constitution, but it was handed down only a decade after Justice Thompson’s initial observation of the distributive reading. It is therefore as credible as Justice Thompson’s reference to the proper reading of the Progress Clause. It is also worth noting that Justice Story was nominated to the Supreme Court in 1811—very close to ratification of the Constitution—by James Madison, one of the two men responsible for the Progress Clause.

Justice Story made clear his view in discussing novelty and enablement:

Still, it is obvious, that although a mere artisan, who had no scientific knowledge on the subject, and who was unacquainted with the various mechanical or chemical equivalents employed in such cases, might not be able to make or compound the thing patented, from the specification; yet a person who was skilled in the very science on which it depended, and with the mechanical and chemical powers and equivalents, might be able to teach and demonstrate to an artisan how it was to be made or constructed, or compounded or used. A fortiori he would be enabled so to do, if he combined practical skill with a thorough knowledge of the scientific principles on which it depended. But upon the question of the novelty of an invention, and in reference to this, the identity or diversity of two or more machines, or compounds, it is obvious, that mere artisans, however well skilled in the mere details of their art, might be wholly incapable of giving a satisfactory answer; when a person trained in the science to which it belonged, would, at a glance, ascertain whether the mechanical apparatus or chemical compound was identical in its composition and structure.

240. See Brooks, 4 F.Cas. at 281.

[You perceive that the science of mechanics . . . affords a range for the highest mental vigor, and requires as deep thought, as nice a discrimination, as any other pursuit. The lights of chemistry, and of the highest branches of the mathematics, are subservient to it. No one can be an accomplished mechanist, who has not studied with some success the laws of physics.

Id. (emphasis added).

241. Blunt, 1 F.Cas. at 450.

242. Id.


244. See supra Part IV.B.2.b.
or not, or whether the differences consisted in the mere change of one known mechanical equivalent for another. In short, science alone would be able to answer the question whether or not a particular machine was substantially in its mode of operation new, or identical with another, although with apparent differences of form and structure, which might mislead the unscientific mind. The like considerations would apply to a chemical compound . . .

Justice Story did not think “mere artisans,” or those “skilled in the mere details of their art,” capable of understanding the workings of technical inventions. Instead, it is those “skilled in the science upon which it depends” to which patent courts should look. Justice Story made clear that he believed “science alone” is able to answer the question of novelty for a given invention.

Justice Story’s language also indicates that he viewed mechanics and chemistry as science, and not useful art. The quoted language hints that Justice Story understood an artisan to be one who practices an invention or puts the invention into effect—what might be described as a skilled laborer today. Those skilled in science are the ones truly capable of promoting progress. According to Justice Story, it was the person “skilled in the very science” pertaining to the invention that might be able to “teach and demonstrate” how to practice an invention to an artisan.

4. Conclusion to be Drawn from Post-Ratification History

Unlike the pre-ratification history, the post-ratification history is rather inconsistent. Some of the evidence seems to indicate that the Progress Clause was given a distributive reading. Equally forceful evidence supports a unitary reading. The only thing that can be taken from this period with any certainty is that the distributive reading was not the well-established doctrine that De Wolf and Lutz would paint it as.

245. *Blunt*, 1 F.Cas. at 450 (emphasis added).
246. *See id.*
247. *See id.*
248. *See id.*
249. *Id.*
250. *Id.*
V. THE UNITARY READING UNDER *HELLER*

With this historical background in mind, it is time to turn to the actual construction of the Progress Clause. This Part briefly addresses the reasoning inherent in the Lutz article for the purpose of showing that that reasoning is not persuasive upon a deeper review of the relevant history. It then turns to the *Heller* analysis and applies the foregoing history. After this, it offers some final observations on the history of the intellectual property laws and the Progress Clause.

A. The Textual Interpretation

Constitutional analysis begins with the proposition that where the language of a provision is clear, there is no need to engage in construction. 251 The foregoing history and the language of the Progress Clause show that it is not such a provision. First, the distributive reading did not become the generally accepted reading until more than a century and a half after the Framing. 252 Second, as the history described above shows, the terminology of the Clause is ambiguous at best. Both of these points demonstrate that there are at least two reasonable interpretations of the Progress Clause, and construction is therefore necessary to ascertain the proper scope and meaning of the Clause.

When construction is necessary, it is important to take a historical look at the “state of things” at the time a constitutional provision is adopted. 253 This historical background is relevant to determining what the “normal and ordinary” meaning of constitutional language was to “ordinary citizens of the founding generation.” 254 Evidence of contemporary interpretation can also speak to the understanding of those ordinary citizens. 255

251. *See* Martin v. Hunter’s Lessee, 14 U.S. (1 Wheat.) 304, 338-39 (1816) (“If the text be clear and distinct, no restriction upon its plain and obvious import ought to be admitted, unless the inference be irresistible.”); *see also* United States v. Sprague, 282 U.S. 716, 731 (1931) (“Where the intention is clear there is no room for construction and no excuse for interpolation or addition.”).

252. *See* Oliar, *Convention*, *supra* note 5, at 463-64 (describing the 1949 Lutz argument as the basis for general acceptance of the distributive reading).

253. *See* Rhode Island v. Massachusetts, 37 U.S. (12 Pet.) 657, 723 (1838) (“In the construction of the constitution we must look to the history of the times, and examine the state of things existing when it was framed and adopted, to ascertain the old law, the mischief, and the remedy.”) (internal citations omitted).


255. *See id.* at 605-19 (using post-ratification commentary, legislation and case law on the Second Amendment to assist in construction of that constitutional provision).
The foregoing historical discussion speaks directly to this “state of things” and to the understanding of ordinary citizens. Admittedly, there is some evidence that supports reading the Progress Clause as requiring separate patent and copyright laws. They were legislated separately, and the Patent Act’s title indicated that it was intended to protect the useful arts. The Clause is, arguably, a balanced sentence that links science, authors and writings together, separate from useful arts, inventors and discoveries. That, however, is the extent of the evidence that supports a distributive reading.

First, addressing Lutz’s position that the rejection of a single piece of legislation in favor of two, it is worth noting that the very first proposed piece of copyright and patent legislation was intended to address them both together. This unitary bill was even passed on its first reading. The laws were not separated until it was observed that policy reasons called for separation. These facts seem to indicate that the Progress Clause was understood to be a unitary provision, and copyright and patent were not separate in the minds of the early legislators until a viable justification was given. Even then, they were only separated in legislation; the only evidence for this separation is a suggestion that patent was more difficult to deal with than copyright—there is no evidence that there was a new understanding that the Progress Clause granted two separate powers.

Further, as has been shown, much more historical evidence supports the unitary reading of the Progress Clause. Among other things, patents were first applied in England to expressive, or “scientific” content rather than useful arts. These rights were still being enforced in the late eighteenth century. Similarly, there is

256. See Patent Act of 1790, ch. 7, § 1, 1 Stat. 109 (1790) (bearing the title “An Act to promote the progress of useful Arts”); see also Wheaton v. Peters, 33 U.S. (8 Pet.) 591, 684 (1834) (Thompson, J., dissenting) (“The Progress Clause is to be construed distributively, and must have been so understood; for when Congress came to execute this power by legislation, the subjects are kept distinct, and very different provisions are made respecting them.”).

257. See De Wolf, supra note 18, at 15; see also Lutz, Patents and Science, supra note 4, at 51.

258. Id.

259. Id. (noting Representative Burke’s observation that literary property was easy to acquire while inventive property was more difficult).

260. See id. (noting Representative Burke’s observation that literary property was easy to acquire while inventive property was more difficult).

261. See id.

262. See Linacre, supra note 134 (claiming a printing privilege in 1512); see also Patterson, supra note 131, at 42 (stating that the first printing “privilege from the sovereign” was granted in 1518).

evidence that members of the Continental Congress, including James Madison, viewed copyright as a tool for encouraging the development of useful arts and discoveries.\textsuperscript{264}

Evidence from after the adoption of the Progress Clause also demonstrates the understanding that “ordinary citizens” had of the provision. The 1790 Patent Act, by far the shortest-lived iteration of the Patent Act to date, was amended in 1793 to expressly include the word “science.”\textsuperscript{265} Another reference to the word “science” was added in the 1836 revision.\textsuperscript{266}

This evidence, along with the remainder of the aforementioned historical background, constitutes the first mechanism in the construction of the Progress Clause. While historical practice does not lead conclusively to one construction or the other, the fact that a definitive construction of the Progress Clause eludes our grasp lends itself to the conclusion that the Clause was meant and understood to be broad. Given that patent law was applied to science and useful arts, while copyright was viewed as conducive to the encouragement of science and the useful arts, is certainly ambiguous. Yet it is that ambiguity that best explains the scope of the Progress Clause: it was meant to be given a unitary reading. Perhaps it was the wisdom of the Framers to make the Clause ambiguous in order to avoid disputes over which power the exclusive right to what subject matter arose under.

An examination of the relevant history and understanding of the Progress Clause—the very same framework used by Lutz—does not conclusively establish that copyrights are limited to science and that patents are limited to useful arts. The Progress Clause is, in fact, susceptible to a much broader interpretation, and the Supreme Court often comes down in favor of the broader interpretation.\textsuperscript{267}

\textsuperscript{264} See, e.g., BUGBEE, supra note 178 at 113 (presenting the view of copyright as something that can promote the useful arts); Resolution of May 2, 1783, reprinted in COPYRIGHT ENACTMENTS, supra note 179 at 11 (presenting copyright as capable of promoting useful discoveries).

\textsuperscript{265} Patent Act of 1793, ch. 11, § 3, 1 Stat. 318 (1793).


\textsuperscript{267} A subset of due process, for example, has led to an unwritten right to privacy. See Carey v. Population Servs., Int’l, 431 U.S. 678, 684 (1977) (“Although ‘(t)he Constitution does not explicitly mention any right of privacy,’ the Court has recognized that one aspect of the ‘liberty’ protected by the Due Process Clause of the Fourteenth Amendment is ‘a right of personal privacy, or a guarantee of certain areas or zones of privacy.’”) (quoting Roe v. Wade, 410 U.S. 113, 152 (1973)). There are other examples of the Court opting for the least restrictive interpretation of other constitutional provisions. The Supreme Court has read the Second Amendment as protecting the right of \textit{all} citizens to keep and bear arms, rather than limiting the
Professor Oliar has argued, the purely historical mechanism of constitutional interpretation seems to call for a unitary reading.  

B. The Heller Interpretation

As discussed above, the Progress Clause shares a similar structure with the Second Amendment. The article now applies the Heller framework to the historical evidence as the second mechanism of constitutional interpretation.

The first step under Heller is to determine the meaning of the operative clause. This article has not challenged the modern understanding of the operative language. Therefore, it treats “authors” and “writings” as the subjects of copyright law and “inventors” and “discoveries” as the subjects of patent law. This Article has also not challenged the language of the prefatory clause, so the second step needs no analysis.

It is the third step—the consistency between the prefatory and operative clauses—that really matters to the Progress Clause. There is very little historical evidence that suggests an unambiguous separation of science as the object of copyright and useful arts as the object of patent. Indeed, there is significantly more evidence that speaks to an overlap in the subject matter of the regimes. Without rehashing the prior historical review, a few facts speak directly to the question of whether science and the useful arts must be treated separately from the viewpoint of the operative clause.

With respect to science, the very first domestic English patent covered a book—a device of general knowledge, not a useful art.

provision to only militiamen. See Dist. of Columbia v. Heller, 554 U.S. 570, 596 (2008). This habit of broad interpretation has also extended to congressional powers. The Interstate Commerce Clause, which could reasonably be interpreted to only allow Congress to govern interstate commerce, has been interpreted to allow Congress to control intrastate activity as well. See Wickard v. Filburn, 317 U.S. 111, 124 (1942) (observing that the Interstate Commerce power can extend to “intrastate activities” that may have an effect on interstate commerce). The Spending Clause has been interpreted to allow Congress to expand its power by indirectly achieving results that Congress could not otherwise have achieved. See South Dakota v. Dole, 483 U.S. 203, 210 (1987) (holding that the spending power may be used by Congress to indirectly achieve “objectives which Congress is not empowered to achieve directly.”).

268. See Oliar, Convention, supra note 5, at 463-69; see also Oliar, Making Sense, supra note 13, at 1823.
269. See supra Part III.B.
270. Heller, 554 U.S. at 578.
271. See supra Part V.B.
272. See supra Part IV.
273. Id.
274. See supra note 136 and accompanying text.
Similar patents were still being granted and enforced in England at around the time of the Framing. According to Lutz, general knowledge falls under the term science. If true, this means that the Framers would have understood patents to be applicable to science.

Likewise, there is clear evidence of a relationship between copyright and useful arts. The Continental Congress appointed a committee “to consider the most proper means of cherishing genius and useful arts throughout the United States by securing to the authors or publishers of new books their property in such works.” States were encouraged to adopt copyright laws to promote these useful arts.

Given this history, the distributive reading’s use of science and useful arts to limit the scope of copyright and patent is in direct conflict with the Heller framework. Because patent and copyright were understood to apply to both the sciences and useful arts, the distributive reading improperly contracts the scope of the operative language by importing prefatory limitations.

This begs the question: what is the proper scope of patent and copyright? The unitary reading of the Progress Clause takes the Constitution to grant power to Congress for one purpose: to promote the progress of science and the useful arts. That is the extent of the proposed change from the distributive reading, which treats the promotion of science and promotion of useful arts as separate and distinct powers. Patent and copyright remain conceptually distinct, but under the unitary reading, there is one single purpose to the Progress Clause. The result is that patent law secures the discoveries of inventors, whether those discoveries are part of science or the useful arts. Copyright likewise secures the writings of authors, whether they are part of science or the useful arts. The current expression/application dichotomy does not conflict with this reading.

The language of the Progress Clause makes the separation of the two regimes appropriate despite indications to the opposite. Although history makes clear that patent may protect science or useful arts, and likewise with copyright, the language of the Clause indicates that the

276. Lutz, Patents and Science, supra note 4, at 50.
277. BUGBEE, supra note 178, at 112.
278. See supra note 179.
280. Lutz, Patents and Science, supra note 4, at 51.
full scope of these regimes is not applicable in all cases: only the discoveries of inventors and the writings of authors may be protected. The operative clause therefore places a limitation upon what types of progress may be protected, but it does not place a limitation upon the subject matter of these works (i.e., whether they are science or useful art).

The critical point of this reading, in the context of the Heller analysis, is that it is the operative clause that dictates the distinction, and not the prefatory clause. The unitary reading only places limitations in accord with the Supreme Court’s jurisprudence, while the distributive reading limits the Progress Clause based on purposive language.

According to the proposed reading, both regimes are subject to several limitations similar to those of the current reading. Neither patent nor copyright is extended to any idea or fact, nor does either right enable an author or inventor to withdraw information from the public domain, because protecting such would not serve to promote progress, and would not be in accord with the original purposes of patent and copyright. These limitations remain unchanged from the law under the distributive reading.281

The major distinction between copyright and patent under the proposed reading is the formal requirements to qualify for each. These requirements under the unitary reading are very similar to those under the distributive reading. It is well established that copyright inures in expressive content.282 Patent, so courts have hinted, is appropriately used to promote the progress of “applicative” works—works that apply laws of nature, natural phenomena, or abstract ideas in a useful manner.283 Therefore, the unitary reading makes little

281. Neither patent nor copyright protects ideas or facts. See Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340, 344-45 (1991) (“The most fundamental axiom of copyright law is that ‘[n]o author may copyright his ideas or the facts he narrates.’”); accord Diamond v. Diehr, 450 U.S. 175, 185 (1981) (“Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.”). Nor may either work serve to withdraw already-existing information from the public domain. See Computer Assocs. Int’l, Inc. v. Altai, Inc., 982 F.2d 693, 710 (2d Cir. 1992) (“Public domain material is free for the taking and cannot be appropriated by a single author even though it is included in a copyrighted work.”); 35 U.S.C. § 102 (2006) (generally denying patent protection for previously known, used or described inventions).

282. See, e.g., Mazer v. Stein, 347 U.S. 201, 214 (1954) (stating that expression is copyrightable); see also Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53 (1884) (stating that “writings” in the Progress Clause means the “literary productions . . . by which the ideas in the mind of the author are given visible expression.”).

change to eligibility law for either regime, save for its inclusion of science as appropriate subject matter for patent protection (copyright, it should be noted, has never really refused protection to works of authorship on the useful arts). 284

The transition from distributive to unitary reading does not result in a major shift in the law. The theoretical foundations of patent and copyright remain largely unchanged. The progress standards in each still operate to limit protection to those things not yet in the public domain and the types of work that patent and copyright each protect remains unchanged. The only difference is that the progress of science now falls within the scope of patent and the progress of useful arts now expressly falls within the scope of copyright. This shift has little impact on most areas of law, but better explains their existence than the distributive reading. 285

C. Observations on the Unitary Reading

There is one final observation worth making that is neither facial nor structural. That is that the unitary reading is actually in accord with earlier English law. First, early patents all arose under the same power—the Royal Prerogative. 286 More important, these early English patents were granted for the same purpose. That purpose, generally put, was to encourage and expand English industrial advancement. 287

After the enactment of the Statute of Monopolies, which created the first legal distinction between industrial and printing patents, 288 these distinct rights were still governed by the same statute. 289 In this sense, then, the Statute of Monopolies very much hinted at the unitary reading of the American Progress Clause: two separate, but related, rights, granted to the same purpose. This is very similar to the unitary reading of the Progress Clause.

In the end, it can be seen that, while the unitary reading of the

(assuming that patent law has hinted at, and in some cases, used, an “application” standard to determine patent eligibility; see also Diehr, 450 U.S. at 187 ("It is now commonplace that an application of a law of nature or a mathematical formula to a known structure or process may well be deserving of patent protection.").)

284. Clearly, scientific textbooks or articles qualify for copyright protection, and promote the progress of useful arts.

285. See infra Part V for a discussion of the effect the unitary reading has on several areas of law.

286. See supra Part IV.B.1.

287. See Mossoff, Development, supra note 94, at 1259; Klitzke, supra note 107, at 625.

288. Statute of Monopolies, 1623, 21 & 22 Jac. I, c. 3, §§ 6, 9, 10. (Eng.).

289. See supra notes 125-28 and accompanying text.
Clause is something relatively new in modern American jurisprudence, the general idea is actually inherent in the furthest ancestors of the Progress Clause. Given the Heller Court’s reliance on history, this historical observation lends credence to the structural analysis presented in the Article.

VI. CONCLUSION

This article has argued that the history of the Progress Clause does not fit as neatly into the distributive reading as Lutz argued. Indeed, the plain history of the Progress Clause is, at most, ambiguous. Typically, constitutional ambiguities like this have been interpreted in the broadest manner—here, the unitary reading—rather than the narrowest manner. More importantly, though, the Supreme Court has recently explained how the structure of a constitutional provision can contribute to our understanding of the provision. Although the structure of the Progress Clause is not exactly identical to the structure of the Second Amendment, this Article has argued that the structures are similar enough that the Supreme Court’s Second Amendment analysis can inform our analysis of the Progress Clause.

Following the Court’s analysis, one is once again forced to conclude that the unitary reading is the correct reading. Historically, it was understood that patents could apply to science, and copyright to useful arts. Therefore, given the Heller Court’s requirement of a logical connection between the two clauses of a constitutional provision, the Progress Clause must be understood to allow patent or copyright to apply to science or useful arts.

290. It does not appear that the reading was proposed in any form until 2006. See Oliar, Making Sense, supra note 13, at 1823.