Scoping Out the Limits of “Arms” Under the Second Amendment

I. INTRODUCTION

With the adoption of the Bill of Rights in 1791, the following words were officially incorporated into the U.S. Constitution: “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.”\(^1\) The proposal was neither more radical nor more controversial than any other provision in the Bill of Rights at the time; after all, the use of militia in the American colonies dated as far back as 1643.\(^2\) Their role in the Revolutionary War, while perhaps secondary to that of the Continental Army proper, was nevertheless well-documented.\(^3\) Additionally, much of the law of England supported the privilege of citizens to “have [a]rms”\(^4\)—though this was not elevated to the level of a “right” in all instances of the phrase.\(^5\) As Justice Scalia observed in 2008’s District of

\(^1\) U.S. Const. amend. II.


\(^4\) See, e.g., An Act Declaring the Rights and Liberties of the Subject and Settling the Succession of the Crown, 1689, 1 W. & M., Sess. 2, c. 2 (Eng.), (“That the subjects which are Protestants may have Arms for their Defence suitable to their Conditions and as allowed by law.”)

\(^5\) See District of Columbia v. Heller, 554 U.S. 570, 583 n.7 (2008) (gathering sources that illustrate the nature of the right to “keep arms” at English common law); Burton v. Sills, 248 A.2d 521, 526 (N.J. 1968) (“The common law did not recognize any absolute right to keep and bear arms . . . .”); 4 WILLIAM BLACKSTONE, COMMENTARIES *56 (noting that Catholics who failed to attend the services of the Church of England were not permitted to “keep arms in their houses”); Lucilius A. Emery, The Constitutional Right to Keep and Bear Arms, 28 HARV. L. REV. 473, 473
Columbia v. Heller, however, “[I]t has always been widely understood that the Second Amendment, like the First and Fourth Amendments, codified a pre-existing right.”

During the debate over the Bill of Rights, the most controversial element of Madison’s original proposition for what would become the Second Amendment centered around the issue of the “religiously scrupulous” clause, rather than whether citizens should have the right to bear arms or what, exactly, constituted “arms” in the first place. In the more than 220 years since, the majority of debate concerning the Second Amendment has largely concerned the question of whether this “right” applies only in the context of a communal militia or whether American citizens have an individual right to bear arms that is independent of an organized militia.

Consequently, scholars and the courts have largely left “arms” undefined, with only a few hints scattered throughout more than two centuries of Second Amendment jurisprudence. This was hardly problematic in the days of the adoption of the Bill of Rights, when an expert marksman bearing a muzzle-loading flintlock musket or rifle might be able to fire his weapon three times per minute, but weapons technology has advanced exponentially in the 220 years since. In the face of napalm, fully automatic assault rifles, mines, poison gas, and even nuclear weapons, a broadly permissive definition of “arms” protected under the Second Amendment would not merely be absurd—it would be the epitome of madness.

(1915) (“The guaranty [of a right to bear arms] does not appear to have been of a common-law right . . . . On the contrary, it was as early as 1328 declared . . . that no man should ‘go nor ride armed . . . in no part elsewhere upon pain,’ etc.” (quoting Statute of Northampton, 1328, 2 Edw. 3, ch. 3 (Eng))).

6. 554 U.S. at 592.

7. 1 ANNALS OF CONG. 424, 434 (1789) (Joseph Gales ed., 1834). As James Madison proposed, “The right of the people to keep and bear arms shall not be infringed; a well armed and well regulated militia being the best security of a free country; but no person religiously scrupulous of bearing arms shall be compelled to render military service in person.” Id.


9. See, e.g., Heller, 554 U.S. at 577. As Justice Scalia noted, “It should be unsurprising that such a significant matter [as the extent of Second Amendment protection over arms] has been for so long judicially unresolved.” Id. at 625.

10. For a further discussion of the chain of cases discussing the Second Amendment, see infra Part II.B.

Obviously, the majority of these weapons are unavailable to American civilians, despite the weapons’ usefulness to the military. This, along with certain comments interspersed among the various Supreme Court cases on the subject, indicates that there are at least some restrictions on the arms protected by the Second Amendment. Yet the question remains: Just what arms, exactly, does the Second Amendment cover? Put another way: What is the full extent of the “right” to bear arms? Is a tank protected as arms? Is napalm? Biological or chemical weapons? Automatic weapons? What about Tasers? Or, at the futuristic end of the spectrum, are powerful hand-held laser projectors—at least some of which are reportedly capable of causing permanent blindness upon the slightest contact with an eye—protected under the Second Amendment? The Court in *Heller* attempted to offer some insight into the question, stating that the weapons protected are those “in common use at the time,” but excluding “dangerous and unusual weapons.” Yet, for reasons that Part III elaborates further, this standard provides insufficient guidance on the matter, and the Court should clarify or revise it to resolve the lingering uncertainties inherent in the standard.

Before proposing an alternate standard, this Comment will examine the historical understanding of arms within both the context of the Second Amendment and under international law at large. In Part II, this Comment will briefly analyze the holding of *Heller*, the most recent Supreme Court case to discuss the question; it will then provide an overview of the historical development of weapons technology in the years since the adoption of the Second Amendment. It will also summarize the key Supreme Court cases that provide the basis for the current state of the federal law on arms and examine the statutory law that purports to limit the arms that citizens may own and use. Part III will consider the current controlling tests on the matter—namely the “common use” standard announced in *Heller* and made directly

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13. See, e.g., Caution: Blue Light Hazard, WICKED LASERS, http://www.wickedlasers.com/laser-tech/blue_light_hazard.html (last visited Nov. 3, 2011) (“Accidental eye exposure will definitely result in instant retina tissue damage even within just milliseconds of exposure. Direct eye contact with the beam or reflected [beam] will cause instant permanent damage and blindness.”).


15. Id. (internal quotation marks omitted).
applicable to the states via *McDonald v. City of Chicago* and argue that only a more definite rule will resolve the considerable uncertainty raised by the current “common use” standard. Finally, Part III.D will suggest a two-part test to determine whether a weapon qualifies as “arms” under the Second Amendment: (1) the weapon must pose no significantly greater threat to human life than a handgun and (2) the innate characteristics of the weapon must generally favor legitimate purposes, such as self-defense or hunting, over criminal ones.

II. BACKGROUND

To provide a background for analysis of the current standards applied by the Supreme Court on the question of arms, it is necessary to first provide a brief overview of the history, case law, and statutory law that contribute to an understanding of the Second Amendment.

A. Principal Advances in Arms Technology Since 1791

To answer the question at the center of this Comment—what are “arms” under the Second Amendment?—the first place to look for guidance is history. At the time of the Bill of Rights, “arms” meant “weapons of offence, or armour of defence.” While this basic meaning has not substantially changed between that time and the present day, the technology constituting “arms” in the twenty-first century is radically different than anything the Framers could have imagined. Given this vast dissonance, it is crucial to understand exactly what the Framers understood about “arms” when they enshrined the right to bear them. Perhaps even more importantly, this background underscores the tremendous advances that have propelled weapons technology into the modern era.

1. Weapons Technology in the Eighteenth Century

During the American Revolutionary War and the years beyond, the most advanced arm of the day was the muzzle-loading flintlock

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18. 1 OXFORD ENGLISH DICTIONARY 634 (2d. ed. 1989) (defining “arms” as a “defensive and offensive outfit for war, things used in fighting”).
smoothbore musket. In the hands of even a trained soldier, the weapon could produce barely more than three shots per minute, with a high rate of misfire and substantially less accuracy than later weapons. The British “Brown Bess” Long Land Pattern Musket exemplified this type of firearm and, in one incarnation or another, saw active service in the British military from 1722 until well into the mid-nineteenth century.

One loaded these weapons, like most from this era, by ramming a bullet down the entirety of the gun’s barrel. The firing mechanism of the Brown Bess and other guns like it was known as the flintlock, and it represented one of the most advanced technological innovations of the day. When one pulled the gun’s trigger, a spring-loaded metal arm—bearing a piece of flint within it—released and swung the flint forward. This flint then struck an iron bar, known as a frizzen, to create sparks. These sparks fell into a pan of waiting gunpowder, poured beforehand, which then ignited the charge and propelled the bullet out through the barrel of the gun.

The chemical propellant used during this time—referred to as gunpowder or black powder—was itself a significant limitation on arms.

19. Technological limitations—like the reliance on black powder for propulsion, which produced soot and smoke fouled a gun’s mechanics and vastly limited visibility—detracted from widespread use of early rifles. JOHN WALTER, THE RIFLE STORY: AN ILLUSTRATED HISTORY FROM 1756 TO THE PRESENT DAY 14–15 (2006); see also infra notes 27–31 and accompanying text (discussing limitations imposed by reliance on black powder). “[F]ew armies regarded the additional expense worth the limited gains: rifled weapons, unless they were breech-loaders, were much slower to load than smooth-bore muskets.” WALTER, supra, at 19. By the late eighteenth century, propellant and other technology eventually caught up with rifling technology to allow for quicker, more efficient firing. TOWNSEND WHELEN, THE AMERICAN RIFLE: A TREATISE, A TEXT BOOK, AND A BOOK OF PRACTICAL INSTRUCTION IN THE USE OF THE RIFLE 3–5 (1918). Still, these guns lacked the substantial power associated with later guns. Id. at 5.

20. Lux, supra note 11, at 86.
21. See id. at 84–86. The gun itself was so renowned by posterity that English author Rudyard Kipling composed a poem dedicated to it in 1911—over half a century after the gun’s retirement from active service. Rudyard Kipling, Brown Bess, in A HISTORY OF ENGLAND 177–79 (1911). Particularly notable is the last stanza of the poem: “And if ever we English have reason to bless/Any arm save our mothers’, that arm is Brown Bess!” Id. at 179.
22. See WHELEN, supra note 19, at 7–9; see also Marshall Brian, How Flintlock Guns Work, HOWSTUFFWORKS, http://science.howstuffworks.com/flintlock2.htm (last visited Nov. 3, 2011). These were known as “muzzle-loading” weapons, as opposed to the “breech-loading” weapons that one loaded from the rear.
23. See Brian, supra note 22.
24. Id.
25. Id.
26. Id.
27. See HARCOURT OMMUNDSEN & ERNEST HERBERT ROBINSON, RIFLES AND AMMUNITION AND RIFLE SHOOTING 111–12 (1915).
technology. This powder converted much of its potential chemical energy into thick black smoke and a large quantity of soot;28 this precluded accuracy at ranges of more than a few dozen yards.29 Worse—and more importantly, in terms of a technological limitation—the soot itself fouled the components of a gun and necessitated frequent cleaning.30 This rendered the possibility of complex internal mechanics unfeasible and rifling impractical.31

Thus, while state of the art for its day, flintlock muzzle-loading muskets faced several serious limitations. These weapons were relatively inaccurate at all but close range32 and featured a relatively slow reload time.33 Further, they were prone to misfires34 and, because of the open pan of gunpowder, were notorious for weather-related unreliability.35 Additionally, the copious amounts of smoke and soot further reduced the functionality of the weapons in terms of accuracy and firing rate.36 An assailant wielding only a single musket could not embark upon the kind of killing spree that has become so infamous in the modern era. In the ten- to fifteen-second span it would take to reload a musket, any potential victims could rapidly overwhelm a single shooter.37 Indeed, battle tactics of the Revolutionary War—the heyday

28. See id. at 113 (“[I]t may be said that the simplest knowledge of chemistry enables one to realize that smoke is only non-consumed matter in a very fine state of division. Black powder produced a large quantity of this soot . . . .”).

29. See Lux, supra note 11, at 86 (noting that maximum ranges for accurate firing did not exceed forty or fifty yards, but explaining that military strategy accommodated this).

30. E.g., Clarence F. Allen, Smokeless Powders, 32 POPULAR MECHANICS MAG. 221, 221 (1919) (“Thus, if the ammunition is of the old black-powder variety, a few shots will foul the bore so badly that to secure further accuracy, [a shooter] will have to stop and clean it and repeat the cleaning every few shots . . . .”).

31. See supra note 19.

32. See, e.g., Lux, supra note 11, at 84 (“With a musket, even a good marksman could not expect to hit a man-sized target at any more than 40 to 50 yards. Individual aiming, however, was not called for . . . . [I]nfantrymen were trained to point and shoot [without] aim[ing] at any individual target.”).

33. See supra note 20 and accompanying text.

34. See WALTER, supra note 19, at 18.


36. See, e.g., Lux, supra note 11, at 86.

37. The tragic January 8, 2011, shooting in Tucson underscores the point, unfortunately. In that incident, a single assailant armed with a handgun and a thirty-three-round magazine killed six people and wounded fourteen more in one or two minutes. Paul M. Barrett, Glock: America’s Gun, BLOOMBERG BUSINESSWEEK, Jan. 17–23, 2011, at 51, 52. In the wake of this shooting, even Robert A. Levy—chairman of the board of the Cato Institute and both co-counsel and a driving force in Heller—has stated that a ban on high-capacity magazines has a “very good chance” of surviving a
of the Brown Bess and other smoothbore flintlock—largely revolved around massed formations of soldiers who fired simultaneously rather than on soldiers firing individually. These were the limitations on “arms” during the time of the Second Amendment’s adoption—not limitations in the legal sense, but rather in the technological.

2. The Tools of World War: Advances in Nineteenth Century Arms Technology

The nineteenth century saw numerous, highly lethal, and previously unthinkable advances in the technology of weapons over a relatively short span of time. So rapid were these new innovations that the tactics of war during this time period failed entirely to keep pace with the changing weapons. A century of technological advancement resulted in a markedly different breed of weapons than anything the Framers of the Constitution could have imagined, along with a totally alien manner of warfare.

Of the advances in firearms technology pioneered during this century, several are worthy of brief note. Powder pans and flintlocks gave way to percussion caps. These yielded, along with the old musket ball, to self-contained cartridges in metal casings, making for more mechanized firing systems. Revolvers using cartridge-based ammunition replaced single-shot musket pistols and allowed a single shooter to rapidly fire several lethal shots in a matter of seconds. Single-shot muzzle-loading smoothbore muskets gave way to breech-loading rifles, then repeating rifles. Finally, true automatic machine constitutional challenge. Seth McLaughlin, Arizona Shootings Prompt Call for Ban on High Capacity Clips, WASH. TIMES, Jan. 11, 2011, at A1.

38. See Lux, supra note 11, at 84.
39. See, e.g., PADDY GRIFFITH, BATTLE TACTICS OF THE CIVIL WAR 17 (1989) (noting that “[t]actics lagged behind technology in the 1860s” and “Civil War assault formations were obsolete in comparison to the fire against which they were launched”).
40. See OMMUNSDSEN & ROBINSON, supra note 27, at 21 (“The most noteworthy improvement, apart from those affecting the bullet or the charge, was the invention, in 1807, of the percussion system of ignition.”).
41. See id. at 34 (describing four periods of projectile history, ending with “the modern period, [which] dates from the adoption of solid cartridge-case used with the breech-loader”).
43. See OMMUNSDSEN & ROBINSON, supra note 27, at 20 (“Subsequent improvements up to the date of the adoption of breech-loading were directed towards reducing the fouling, and so adjusting weight of bullet, twist of rifling and power of explosion as to give the longest and most accurate range to the bullet.”).
guns—like the Maxim gun of the 1880s—became available. This weapon—the world’s first true, self-powered automatic weapon—could fire over 600 rounds per minute. To the Framers just a century before, this hail of fire would have been unthinkable. It would have taken 200 Revolutionary War musket-equipped minutemen each firing a full three shots per minute to match that volume.

In the world of ammunition, spherical musket balls gave way to the conical Miné ball, a longer, larger round designed for rifles that provided more accuracy than older ammunition because of the way it expanded to fit the rifle’s grooves. Eventually, cartridges containing a sharply pointed lead round and a quantity of gunpowder, all covered in a harder metal jacket, became the norm. Additionally, technology allowed for more devastating rounds like the exploding bullet and the expanding bullet. International treaty eventually banned military use of both exploding bullets and expanding bullets. Black powder was abandoned in favor of the more efficient smokeless powder, which produced more force and much less smoke. This increased battlefield visibility and created less soot to foul a gun’s mechanical components. Significantly, smokeless powder generated more energy to propel a

44. See id. at 92–94.
46. Id.
47. Id. at 352.
48. See supra note 11 and accompanying text.
49. See OMMUNDSEN & ROBINSON, supra note 27, at 47–48.
50. See, e.g., id. at 102–04 (discussing the development of the first modern metal cartridge by the Swiss Major Eduard Rubin).
52. Examples of expanding bullets include both hollow-point and soft-point bullets that, upon impact, expanded far beyond their normal size in order to tear a much larger hole than a normal shot. See OMMUNDSEN & Robinson, supra note 27, at 118–20.
54. Hague Declaration (IV, 3) Concerning the Prohibition of the Use of Expanding Bullets, July 29, 1899, 26 Martens Nouveau Recueil (ser. 2) 1002, 187 Consol. T.S. 459 [hereinafter Hague Expanding Bullets Declaration]. The United States is not a party to the Hague Convention, see id., and recreational use of expanding bullets continues in some instances. See OMMUNDSEN & ROBINSON, supra note 27, at 179–80. For further discussion of expanding bullets, see infra Part III.B.4.
55. See, e.g., OMMUNDSEN & ROBINSON, supra note 27, at 111–13.
56. See id.
bullet, which produced higher muzzle velocity—and, consequently, greater lethality—for every shot.57

To summarize, the trend of small-arms technological advancements during the nineteenth century arced toward greater accuracy, expanded range, deadlier munitions, and higher rates of fire—including the advent of true automatic weapons—than had previously been thought possible. These innovations would not only shape the next half-century of warfare, they would persist, with relatively few changes, to the modern day.

3. Weapons of the Twentieth Century and Beyond

For the purposes of this discussion, it is not necessary to catalog the development of horrifyingly effective poison gases, biological weapons, and nuclear ordnance. To say that they were created during the twentieth century, that most were unleashed upon human beings at one time or another, and that many still exist today—albeit closely controlled by the governments of the world—is sufficient. One may also surmise that the men who drafted the Second Amendment could never have conceived the horrors of nuclear holocaust when they enshrined “the right of the people to keep and bear Arms” in the Bill of Rights.58

One might suppose that, given the Second Amendment’s discussion of militia, these most extreme and deadly of weapons cannot possibly constitute protected “arms” under the Second Amendment. The Supreme Court, however, has stated that “arms” need not necessarily fit within a militia purpose.59 A cursory reading of Heller suggests that weapons that are “in common use at the time” receive protection from the Second Amendment.60 One might hypothesize in reductio ad absurdum that, should mutant anthrax or hydrogen bombs ever fall into “common use” by the citizenry, then they too would qualify as lawful “arms.”61

Leaving behind, for the moment, the “common use” predicament, there remains a problem with a number of advanced weapons—or, at the

57. See id.
58. U.S. CONST. amend. II.
61. Obviously, “in common use” is not the only test controlling the protected status of a particular arm, see infra Part III, but it remains a central component of current Second Amendment jurisprudence. The point raised here, however, is that reliance solely on the “in common use” standard fails to produce a coherent approach to understanding and applying the Second Amendment.
very least, quasi-weapons—that have arisen in recent years. For the purposes of this Comment, discussion of two troublesome examples of these new “weapons”—the ray-emitting Active Denial System (ADS) and other similar instruments, and high-powered, hand-held Class IV lasers like the S3 Spyder III Arctic—will suffice. Class IV lasers, though they have the capacity to burn skin or permanently blind a target with even an indirect pathway to an eye, are not marketed or necessarily even intended to be used as “weapons” per se. Consequently, they challenge all traditional notions of “arms” and resist easy categorization precisely because they are so unlike the kinds of weapons that have come before.

Part III examines the status of both ADS and ADS-type weapons and Class IV lasers. For the moment, however, it is sufficient to note that both weapons represent only the tip of the iceberg in terms of future weapons development. Technology is unlikely to cease advancing over the next century, and the analysis applied to these “weapons” is but a preview of the discourse that will emerge in the coming years. In light of this, however, the necessity for a coherent and precise standard in determining what items are and are not protected “arms” becomes even more important.

B. Principal Second Amendment Case Law

In the wake of McDonald v. City of Chicago, the Second Amendment right to keep and bear arms applies against the states. To the extent that they conflict with federal legislation, all state

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62. Another troubling weapon category is that of the Taser or “stun gun.” These devices use electricity to incapacitate an assailant without killing him. See Eugene Volokh, Nonlethal Self-Defense, (Almost Entirely) Nonlethal Weapons, and the Rights to Keep and Bear Arms and Defend Life, 62 STAN. L. REV. 199, 204–05 (2009). The status of Tasers as “arms,” however, is considered in greater detail elsewhere. See, e.g., id. at 218–21. As such, a discussion of the status of Tasers here is not merited, save to note that their classification as protectable “arms” remains uncertain in the wake of McDonald v. City of Chicago.

63. See infra Part III.C.1.


66. See S3 Arctic Series, supra note 64 (cautioning users never to point the laser at another person, animal, or vehicle).

67. 130 S. Ct. 3020, 3026 (2010).

68. The Second Amendment contains no clause to execute itself and is thus dependent on congressional legislation via the Fourteenth Amendment. See U.S. CONST. amend II. The laws
constitutional provisions and statutes on the matter—and, by proxy, the multifarious state court rulings on the right itself—have thus been rendered effectively subordinate to the U.S. Constitution. Now that state courts are bound by such constraints when a conflict exists between state and federal arms laws, this Comment will address only the principal federal decisions that make up the background of current Second Amendment case law on “arms” determinations.

1. United States v. Miller

The first Supreme Court case to actually address the Second Amendment would not come until 1939, when the Court decided United States v. Miller. The defendants in Miller were charged, under the 1934 National Firearms Act, with unlawfully transporting a short-barreled shotgun in interstate commerce. Challenging the statute on constitutional grounds, the defendants claimed that the Act “offend[ed] the inhibition of the Second Amendment.” The district court agreed and quashed the indictment against the defendants. The Government appealed directly to the Supreme Court.

Considering the question, Justice McReynolds, writing for the majority, placed strong emphasis on the lack of usefulness of short-
barreled shotguns to militia purposes.77 In considering the history and intent behind the Second Amendment, the Miller Court noted that “ordinarily when called for service [militiamen during the late eighteenth century] were expected to appear bearing arms supplied by themselves and of the kind in common use at the time.”78 The sentence is not a holding; it merely suggests what was historically plausible for the type of “arms” that a citizen of the colonies was expected to own and bring to service—again, in the militia context only. The words “self defense” do not appear in Miller; the only purpose discussed in the opinion is that of the “common defense,” which, once more, refers only to militia duty.79 There is the suggestion that only weapons having “some reasonable relationship to the preservation or efficiency of a well regulated militia,” comprising “part of the ordinary military equipment,” and “contribution to the common defense” qualify for protection under the Second Amendment.80 Yet, as will be seen below, the Court has either wholly or principally abandoned these notions in recent years. In their place is a single, unsatisfactory bit of Miller dicta: “in common use at the time.”81

2. District of Columbia v. Heller

In 2008, the Supreme Court decision District of Columbia v. Heller directly addressed the central question posed in this Comment: What are “arms” protected by the Second Amendment? At issue was the constitutionality of a number of statutes unique to the District of Columbia, including a city-wide handgun ban82 and a requirement that all “long guns” be either “unloaded and disassembled or bound by a trigger lock or similar device’ unless they [we]re located in a place of business

77. Id. at 178. As Justice McReynolds explained:
   In the absence of any evidence tending to show that possession or use of a ‘shotgun having a barrel of less than eighteen inches in length’ at this time has some reasonable relationship to the preservation or efficiency of a well regulated militia, we cannot say that the Second Amendment guarantees the right to keep and bear such an instrument. Certainly it is not within judicial notice that this weapon is any part of the ordinary military equipment or that its use could contribute to the common defense.

78. Id. at 179.

79. See id. at 178–79.

80. See id. at 178 (citing Aymette, 20 Tenn. at 158).

81. Id. at 179.

82. District of Columbia v. Heller, 554 U.S. 570, 574–75 (2008) (citing D.C. CODE §§ 7-2501.01(12), 7-2502.01(a), 7-2502.02(a)(4) (2001)).
or [we]re being used for lawful recreational activities.”

Though the District of Columbia authorized and expected Heller—a police officer—to carry a handgun on duty, it denied his application for the permit required by city ordinances to lawfully possess a handgun at home.

Heller subsequently sought an injunction to prevent the city from enforcing these ordinances, claiming a violation of the Second Amendment. The district court dismissed the complaint, but the Court of Appeals for the District of Columbia Circuit reversed, holding that the city ordinances at issue did, in fact, violate the Second Amendment.

On appeal to the Supreme Court, Justice Scalia wrote for the majority and examined the two traditional sides of Second Amendment debate. One school of thought believes that this right extends “only to the right to possess and carry a firearm in connection with militia service,” while another argues for an “individual right to possess a firearm unconnected with service in a militia, and to use that arm for traditionally lawful purposes, such as self-defense within the home.” Ultimately, the Court decided that the right to bear arms exists as an individual right, rather than one derived purely from militia service.

The ultimate outcome of the case, however, is less important for identifying “arms” than the process by which the Court arrived at the conclusion. Specifically, the Court considered what “arms” were protected under the Second Amendment, giving rise to a number of important and, at times, seemingly contradictory points. For one, it noted that “arms” did not only refer to weapons useful in a military setting, as had frequently been claimed. Additionally, and perhaps more importantly, the Court held that, much like the First and Fourth Amendments, the Second Amendment was not a static creature, constrained to protect only the types of arms that existed during the time of the Framers: “[T]he Second Amendment extends, prima facie, to all instruments that constitute bearable arms, even those that were not in existence at the time of the founding.”

83. *Id.* at 575 (quoting D.C. CODE § 7-2507.02).
84. *See id.*
85. *Id.* at 575–76.
86. *Id.* at 576.
87. *Id.* at 577 (citing *id.* at 636–37 (Stevens, J., dissenting); Brief for Petitioners, *Heller*, 554 U.S. 570 (No. 07-290)).
88. *Id.* at 577 (citing Respondent’s Brief, *Heller*, 554 U.S. 570 (No. 07-290)).
89. *Id.* at 594–95.
90. *Id.* at 581–83, 624–25.
91. *Id.* at 582.
By itself, this raises a number of issues. While it would, perhaps, be unrealistic to suggest that the Framers intended to limit the scope of the Second Amendment to rudimentary muskets, the scope chosen by the Court—“all instruments that constitute bearable arms”\(^\text{92}\)—is broad in the extreme. It neither imposes an upper limit to the destructive power of arms protected under the Second Amendment nor helps define “arms” any more than to say that they extend well beyond single-shot muzzle-loading flintlock muskets, which has long been assumed anyway.

Fortunately, the Court did not leave the analysis of “arms” there. Looking to United States v. Miller,\(^\text{93}\) it concluded that “the sorts of weapons protected were those ‘in common use at the time.’”\(^\text{94}\) Additionally, under Miller, the Court concluded that the Second Amendment does not extend to “weapons not typically possessed by law-abiding citizens for lawful purposes, such as short-barreled shotguns.”\(^\text{95}\) The Court then suggested that this excludes “dangerous and unusual weapons,” despite the inescapable conclusion that their dangerous or unusual characteristics prevent them from being “in common use” in the first place.\(^\text{96}\) In the following paragraph, the Court noted that, although automatic weapons may be most useful from a military standpoint—and, indeed, that “no amount of small arms could be useful against modern-day bombers and tanks”—these are not analogous to the “sorts of lawful weapons” owned by militiamen of the eighteenth century.\(^\text{97}\)

Thus, the Court’s language suggests two conclusions by implication. First, “bombers and tanks” are not protected “arms” under the Second Amendment,\(^\text{98}\) which finally sets a rough upper limit on “arms.” Second, the only lawful arms protected by the Second Amendment are those “small arms” analogous to the “sorts of lawful weapons that [eighteenth-century militiamen] possessed at home.”\(^\text{99}\) As a secondary effect, this essentially limits the militia of the modern day to vastly inferior weapons relative to anything they would possibly face from any foreign invading army; yet, according to the Court, “the fact that modern developments

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92. Id.
93. 307 U.S. 174 (1939), abrogated by Heller, 554 U.S. 570; see supra Part II.B.1.
95. Id. at 625.
96. Id. at 627 (internal quotation marks omitted). This analysis opens the problem of circular reasoning. See infra Part III.A.1.
98. See id.
99. See id.
have limited the degree of fit between the prefatory clause and the
protected right cannot change our interpretation of the right.\textsuperscript{100} Whether
this effective hamstringing of the militia is desirable, or even proper in
light of the realities of modern warfare, remains to be seen.

Despite the uncertainties and generalities of the discussion of arms in
\textit{Heller}, it is possible, at the very least, to ascertain a number of standards
in order to determine whether a specific instrument receives protection
under the Second Amendment: the weapon must be “in common use” at
the time;\textsuperscript{101} it must not be “dangerous and unusual”;\textsuperscript{102} while it need not
be created specifically for a military purpose, it must not be a type of
weapon “not typically possessed by law-abiding citizens for lawful
purposes, such as short-barreled shotguns”;\textsuperscript{103} and it must be at least
roughly analogous to the type of weapons owned by an eighteenth-
century militiaman, though this by no means provides an absolute
 technological limitation.\textsuperscript{104} There is also the suggestion that protected
“arms” are limited to small arms,\textsuperscript{105} but the Court neither elaborates on
nor repeats this.

The precise usefulness of these criteria in answering the “arms”
question remains to be seen.\textsuperscript{106} Despite the appearance of reasonableness
on their face, one must consider these criteria in light of the
developments in weapons technology over the past two-and-a-half
centuries. One must wonder, in light of the preceding discussion,
whether the Framers would have been so generous in their broad and
undefined protection of “arms” had they foreseen the extent of the
impending developments in technology.

3. \textit{McDonald v. City of Chicago}

In 2010’s \textit{McDonald v. City of Chicago}, the Supreme Court again
expanded the scope of the Second Amendment.\textsuperscript{107} The plaintiffs—
several Chicago-area citizens—sought to own and keep handguns for

\textsuperscript{100}. \textit{Id.} at 627–28.
\textsuperscript{101}. \textit{Id.} at 627 (quoting United States v. Miller, 307 U.S. 174, 179 (1939).
\textsuperscript{102}. \textit{Id.} (internal quotation marks omitted).
\textsuperscript{103}. \textit{Id.} at 625.
\textsuperscript{104}. See \textit{id.} at 627–28 (analogizing machine guns to arms used by eighteenth-century
militiamen).
\textsuperscript{105}. \textit{Id.} at 627.
\textsuperscript{106}. For discussion of the “common use” standard, see infra Part III.
\textsuperscript{107}. 130 S. Ct. 3020, 3076 (2010) (holding that “the Second Amendment right is fully applicable
to the States”).
lawful self-defense, but a city-wide ban on these weapons prevented them from doing so.\textsuperscript{108} Because of the long-held understanding that the Bill of Rights did not automatically apply against the states, the proponents of the ban argued that it was indeed constitutional under Illinois law.\textsuperscript{109} Rejecting that argument, a plurality of the Court instead held that the Due Process Clause of the Fourteenth Amendment incorporates the Second Amendment against the states.\textsuperscript{110}

The Court again affirmed most of \textit{Heller}, and thus, the opinion warrants little direct discussion here; although, once more, the Court stated that “self-defense [is] "the \textit{central component} of the right [to keep and bear arms] itself."	extsuperscript{111} This again suggests that weapons that have a strong “self-defense” use may be protected as “arms” by the Second Amendment, though this is not stated within the opinion itself.

Of somewhat greater importance is the inevitable problem of federal preemption. Before \textit{McDonald}, the Second Amendment only applied to the federal government.\textsuperscript{112} Individual state provisions solely governed the states, and federal laws could not preempt those of the states.\textsuperscript{113} Thus, the power to regulate arms was, at least partially, reserved to the states as a police power.\textsuperscript{114} Now that both state and federal laws are accountable to the same source of law—the Second Amendment—it is possible for federal preemption of state laws when laws conflict.\textsuperscript{115} Accordingly, and because the topic of state laws has been covered elsewhere,\textsuperscript{116} this Comment will discuss only federal laws on the matter.

\textsuperscript{108} \textit{Id.}
\textsuperscript{109} \textit{See id.} at 3028.
\textsuperscript{110} \textit{Id.} at 3050 (plurality opinion).
\textsuperscript{111} \textit{Id.} at 3048 (quoting District of Columbia v. Heller, 554 U.S. 570, 599 (2008)).
\textsuperscript{112} \textit{Id.} at 3114 (Stevens, J., dissenting).
\textsuperscript{113} \textit{Id.}
\textsuperscript{114} \textit{See id.} (“Finally, even apart from the States’ long history of firearms regulation and its location at the core of their police powers, this is a quintessential area in which federalism ought to be allowed to flourish without this Court’s meddling.”).
\textsuperscript{115} Although the Court has declined to explicitly address the preemption of state gun laws by federal gun laws, it has discussed the potential for actual conflict between two sets of law:

[S]tate law is pre-empted to the extent that it actually conflicts with federal law. Thus, the Court has found pre-emption where it is impossible for a private party to comply with both state and federal requirements or where state law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”

\textsuperscript{116} \textit{See supra} note 70.
C. Overview of Statutes Restricting the Ownership and Use of Arms

Although numerous states regulate weapon ownership and use, most of these laws, if not all, are now vulnerable to attack in the aftermath of *McDonald*.\(^\text{117}\) Given the nature of federal preemption, because the same law—the Second Amendment—binds both federal and state law, federal law will prevail when it conflicts with state law.\(^\text{118}\) Therefore, this Comment will only explore the two federal statutes that currently provide the bulwark of weapon-related statutory law: the National Firearms Act of 1934 and the Gun Control Act of 1968.

1. The National Firearms Act of 1934

The National Firearms Act (NFA) of 1934 sought to curtail the manufacture and transfer of certain firearms by taxing importers, manufacturers, and dealers and proposing mandatory firearm registration, and it placed a number of restrictions on what arms are and are not permissible.\(^\text{119}\) Given both the NFA’s seventy-eight-year lifespan and that the constitutionality of the NFA itself was challenged in *Miller*—albeit only as it related to the regulation of sawed-off shotguns\(^\text{120}\)—it is plausible that the majority of provisions contained within it are, in fact, valid under the Second Amendment. One can, thus, draw a few implicit conclusions regarding the permissibility of certain restrictions on “arms” by taking a cursory glance at the NFA: (1) it is permissible to restrict, or at least regulate, “making” a firearm under the meaning of the NFA;\(^\text{121}\) (2) it is permissible to regulate “firearms” as defined by the NFA, which includes eight classes of weapons;\(^\text{122}\) (3)

\(^{117}\) *McDonald*, 130 S. Ct. at 3020.

\(^{118}\) See id. at 3050. As the Court conceded, “[I]ncorporation of the Second Amendment right will to some extent limit the legislative freedom of the States, but this is always true when a Bill of Rights provision is incorporated. Incorporation always restricts experimentation and local variations, but that has not stopped the Court from incorporating virtually every other provision of the Bill of Rights.”


\(^{120}\) See supra Part II.B.1.

\(^{121}\) Under the NFA, “making” a firearm includes “manufacturing (other than by one qualified to engage in such business under this chapter), putting together, altering, any combination of these, or otherwise producing a firearm.” 26 U.S.C. § 5845(i).

\(^{122}\) “Firearms” subject to NFA regulation and a mandatory $200 registration tax include (1) a shotgun with a barrel shorter than eighteen inches, (2) a weapon made from a shotgun with either a
specifically excluded from the definition of “firearms” are antique devices; and (4) specifically excluded from the definition of “destructive device[s] are shotguns, “which the Secretary finds [are] generally recognized as particularly suitable for sporting purposes” despite having a bore of more than one-half inch.

Ultimately, the NFA does not actually prohibit ownership of any weapons; so long as the owner pays the tax under § 5811(a) or § 5821(a) and registers the weapon under § 5841, he may own that weapon. As part of Title 26, however, the NFA is a tax section; while it does not impose an outright prohibition on the making of a sawed-off shotgun or the purchase of a massive Boys .55 Caliber Anti Tank Rifle, the inclusion of such weapons suggests that it is permissible for a state or subsequent federal law to tighten the regulations concerning them. As explained in the next section, some federal laws have already done just that.


Unlike the NFA, the Gun Control Act (GCA) of 1968, which was amended by the Firearm Owners’ Protection Act of 1986, specifically criminalized the use and sale of certain types of weapons and ammunition. Additionally, it directly addressed the preemption question by stating that, while it does not purport to occupy the field, it will preempt state law where “there is a direct and positive conflict between such provision and the law of the State so that the two cannot be reconciled or consistently stand together.” Among the weapons prohibited are (1) machine guns, (2) destructive devices, (3) short-barrel shorter than eighteen inches or an overall length of less than twenty-six inches, (3) a rifle with a barrel shorter than sixteen inches, (4) a weapon made from a rifle with either a barrel shorter than sixteen inches or a total length below twenty-six inches, (5) “any other weapon” as defined in § 5845(e), (6) a “machine gun” defined in § 5845(b), (7) any silencer as defined in 18 U.S.C. § 921 (2006), and (8) a destructive device as defined by 26 U.S.C. § 5845(f).
barreled shotguns,\textsuperscript{130} (4) short-barreled rifles,\textsuperscript{131} (5) armor-piercing ammunition,\textsuperscript{132} and (6) guns undetectable by metal detectors.\textsuperscript{133} There are exceptions and qualifications to most of these provisions, but suffice it to say that all are heavily regulated under the GCA.

By synthesizing the two Acts, one may conclude that weapons such as those banned under these Acts probably do not meet the constitutional definition of “arms” under the Second Amendment and are not, therefore, protected. At least in the case of short-barreled shotguns, the Court has explicitly found as much;\textsuperscript{134} in the case of the others, the long judicial silence on the matter appears to have already decided the question. Part III will analyze the weapons alongside the potential criteria derived from \textit{Heller}, as discussed above in Part II.B.2.

Notably absent from either the NFA or the GCA are so-called “expanding” bullets—like soft-point or hollow-point bullets—that, upon contact with a target, broaden to create a wound far larger and more traumatic than other bullets of comparable caliber.\textsuperscript{135} Interestingly, such bullets are notorious for actually decreasing the penetration power of a round, while armor-piercing bullets—such as those prohibited by the GCA—are designed as a heavier round capable of punching through body armor.\textsuperscript{136} One might argue that, with greater stopping power, an expanding bullet is of more use for self-defense purposes than a round specifically intended to penetrate armor,\textsuperscript{137} yet each are highly lethal in their own right. Indeed, at least since the Hague Convention of 1899, numerous nations have decried the use of expanding bullets in warfare.\textsuperscript{138} While this has no legal bearing on the current status of the bullets in the United States, it suggests an abhorrence or revulsion to the round that

\begin{itemize}
  \item[129.] § 922(a)(4), (b)(4).
  \item[130.] \textit{Id.}
  \item[131.] \textit{Id.}
  \item[132.] § 922(a)(7)–(8), (b)(5).
  \item[133.] § 922(p)(1)(A).
  \item[135.] \textit{Round Point vs Hollow Point Bullets}, FirstScienceTV, http://www.youtube.com/watch?v=MrZbjQe8XRU (last visited Nov. 5, 2011) (explaining the mechanics of hollow-point bullets).
  \item[136.] See A. HUNSICKER, ADVANCED SKILLS IN EXECUTIVE PROTECTION 249 (2010) (“The [hollow point] bullet is more effective in its stopping power, but less likely to hit innocent bystanders because of over-penetration of the target. Full-metal-jacket bullets and other non-expanding bullets are in a sense less effective than hollow-point bullets, because of over-penetration.”).
  \item[137.] See \textit{id.}
  \item[138.] See Hague Expanding Bullets Declaration, \textit{supra} note 54.
\end{itemize}
may—but does not necessarily—lead to the conclusion that it is “dangerous or unusual” and unworthy of protection by the Second Amendment.

III. ANALYSIS

A. The Heller Standards

1. “In Common Use”

Central to the standards applied in *Heller* is the requirement that a weapon must be “in common use at the time.”\(^{139}\) Indeed, the Court goes so far as to note that “[t]he handgun ban amounts to a prohibition of an entire class of ‘arms’ that is overwhelmingly chosen by American society for [a] lawful purpose.”\(^{140}\) The Court continues by observing that “handguns are the most popular weapon chosen by Americans for self-defense in the home, and a complete prohibition of their use is invalid.”\(^{141}\)

This emphasis on popularity is troubling. By basing an important constitutional right on the vicissitudes of popular opinion, rather than a consistent, objective standard, the Court has effectively subjugated the Bill of Rights to the whim of consumer demand. Should a new, more deadly weapon grow in popularity, it stands to reason that it, too, might find its way into the safe harbor created by the “common use” standard. Under this standard, the Court placed no emphasis on the inherent capabilities of the weapon itself; it considered only the number of such weapons used by the public.\(^ {142}\) Applying this principle to the worldwide stage, the ubiquitous Kalashnikov assault rifles—the family of guns including the AK-47 and other automatics\(^ {143}\)—would theoretically find themselves protected as overwhelmingly commonly used weapons. Yet,

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139. District of Columbia v. Heller, 554 U.S. 570, 627 (2008) ("We also recognize another important limitation on the right to keep and carry arms. *Miller* said, as we have explained, that the sorts of weapons protected were those ‘in common use at the time.’" (quoting United States v. Miller, 307 U.S. 174, 179 (1939))).

140. Id. at 628.

141. Id. at 629.

142. As Justice Stevens observed, “The Court struck down the District of Columbia’s handgun ban not because of the utility of handguns for lawful self-defense, but rather because of their popularity for that purpose.” McDonald v. City of Chicago, 130 S. Ct. 3420, 3107 n.33 (2010) (Stevens, J., dissenting) (citing *Heller*, 554 U.S. at 628).

the GCA clearly prohibits Kalashnikovs as automatic weapons and does not contemplate their popularity worldwide.

This raises the second problem with the common use standard. If the Second Amendment does not protect a weapon until it enters common use, then how can any new weapon ever enter common use in the first place? Put another way, if the government may ban all weapons until they enter common use, then these weapons cannot be lawfully sold despite their otherwise favorable characteristics and will never become commonly used by the public. This effectively freezes technological improvements in weapons by restricting protected arms to those weapons in common use today. Even if a superior weapon for self-defense purposes entered production tomorrow, the fact that it was not in common use today would place it outside the protection of the Second Amendment—at least under this element of the Heller standard.

2. “Dangerous and Unusual”

The Heller Court stated that the common use standard “is fairly supported by the historical tradition of prohibiting the carrying of ‘dangerous and unusual weapons’.” This is problematic in determining which weapons receive constitutional protection, however. In addition to redundancy with the common use standard—a weapon’s “unusual” status reflects directly upon its common usage—it is also vague to the point of meaninglessness. All weapons are dangerous. If a particular weapon was not dangerous, then there would be little use for it in the first place. The average citizen, after all, could not fight off an assailant with a water pistol; he must have the means to defend himself using a dangerous weapon.

More useful than merely prohibiting dangerous weapons, however, is an objective test for assessing relative levels of possible danger in any given weapon. Indeed, courts have applied a similar rationale for more than three-quarters of a century. It is an elementary principle that not all weapons are created equal in the harm they produce. A machine gun, for instance, is capable of generating a far greater volume of fire than a handgun. A knife, likewise, can harm only a single person at a time, yet

144. See supra Part II.C.2.
145. Heller, 554 U.S. at 627.
146. See, e.g., People v. Brown, 235 N.W. 245, 246 (Mich. 1931) (en banc) (“Some arms, although they have a valid use for the protection of the state by organized and instructed soldiery in times of war or riot, are too dangerous to be kept in a settled community by individuals . . . .”).
a single modern fragmentation grenade can kill all targets in a five-meter radius and wound targets up to fifteen meters away.\(^{147}\) All of these weapons are dangerous in the sense that they can all harm or kill. Yet, they differ markedly in the numbers of people they can kill in the same span of time. A limitation on the level of danger, then, is radically more useful to any discussion of constitutional limitations on protected arms than a blanket prohibition on dangerous weapons. This will be a key feature of this Comment’s suggested framework for determining the protected status of arms in the future.

3. “Not Typically Possessed by Law-Abiding Citizens for Lawful Purposes”

The \textit{Heller} Court also stated that “the Second Amendment does not protect those weapons not typically possessed by law-abiding citizens for lawful purposes, such as short-barreled shotguns.”\(^{148}\) Although the use of the word “typically” echoes the common use issues noted above, the second part of the sentence states a consideration that, though somewhat amorphous at present, is nevertheless useful as a guide to understanding the limits of “arms.” The Court stated that “lawful purposes” include self-defense and defense of the home, which at the time of the Framers also implied that militia service was an additional lawful purpose.\(^{149}\)

Ignoring the “typically” language, the question then becomes: What weapons are useful for lawful purposes such as those articulated in the opinion? Again, courts and legal scholars have long noted this consideration, though its specifics remain unclear.\(^{150}\) Any weapon may be used for unlawful purposes, but the average home defender


\(^{148}\) \textit{Heller}, 554 U.S. at 625 (interpreting United States v. Miller, 307 U.S. 174 (1939)).

\(^{149}\) \textit{See id. at 623–25.} The Court noted that “[i]n the colonial and revolutionary war era, [small-arms] weapons used by militiamen and weapons used in defense of person and home were one and the same.” \textit{Id.} at 624–25 (alteration in original) (quoting State v. Kessler, 614 P.2d 94, 98 (1980)) (internal quotation marks omitted).

\(^{150}\) \textit{See, e.g.,} \textit{Brown}, 235 N.W. at 246 (“Some arms . . . find their use by bands of criminals and have legitimate employment only by guards and police. Some weapons are adapted and recognized by the common opinion of good citizens as proper for private defense of person and property. Others are the peculiar tools of the criminal.”); \textit{Emery, supra note 5}, at 473 (“The greater deadliness of small firearms . . . , the alarming frequency of homicides and felonious assaults with such arms, the evolution of a distinct class of criminals known as ‘gunmen’ from their ready use of such weapons for criminal purposes, are [raising] the question of the reason, scope, and limitation of the constitutional guaranty of a right to keep and bear arms . . . .”).
presumably has little use for a bazooka or a machine gun. One must limit lawful self-defense, then, to a finite, as-yet-undetermined amount of force. Though no legal mechanism exists to determine the maximum amount of force necessary for lawful self-defense under _Heller_, a consideration of the dangerousness of a weapon is the most logical analytical device to apply, for reasons that will be discussed further.  

The _purpose_ of any particular weapon is another important consideration in determining the extent of its “lawful” character. Although many states have enacted concealed-carry laws relating to handguns, these laws do not exempt one from the prohibition on carrying a short-barreled shotgun or rifle under the GCA. As will be discussed shortly, part of the attractiveness of a sawed-off shotgun is the ease by which one may deploy the gun from a hidden place at a moment’s notice—a feature long associated with criminal activity. Likewise, a firearm silencer exists solely to quiet the noise produced by a gunshot—a purpose generally associated with illicit activities. The average home-defender has no need for a silenced shot; if he lawfully discharges his weapon at an intruder, his action does not need concealment. Yet an assassin may benefit greatly from a silent shot, as it allows him to fire without alerting anyone to the noise normally produced by a gun. Thus, a character of unlawfulness can be imputed to the use of silencers, as demonstrated by the heavy punishment levied on those who use them to commit crimes under federal law.  

These examples demonstrate a few weapons that do not relate to lawful purposes, but they fail to suggest a concrete test to determine which weapons do. One may suppose that the more utility a weapon represents to a self- or home-defender, while at the same time producing

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151. See Part III.D.
153. See infra Part III.B.1.
154. The GCA defines “firearm silencer” as “any device for silencing, muffling, or diminishing the report of a portable firearm, including any combination of parts, designed or redesigned, and intended for use in assembling or fabricating a firearm silencer or firearm muffler, and any part intended only for use in such assembly or fabrication.” 18 U.S.C. § 921(a)(24) (2006).
155. See § 924(c)(1)(B)(ii) (setting a minimum sentence of thirty years in prison for possession of a firearm with a silencer under this subsection); § 924(c)(1)(C)(ii) (setting a sentence of life imprisonment for a second violation of this subsection for possession or use of a destructive device, a machine gun, or a firearm equipped with a silencer); § 924(o) (allowing a maximum sentence of life imprisonment for a conviction of conspiracy to commit a crime with a destructive device, a machine gun, or a firearm equipped with a silencer).
less use for purely criminal activities, the more likely the weapon will satisfy the "lawful purposes" prong under the *Heller* test. Low destructive potential, low emphasis on concealment, and low attractiveness for illicit purposes may all be important factors to consider in applying this test. At present, however, the current test does not provide enough definite guidance to deduce exactly which weapons are used for "lawful purposes" and which are not.

4. Analogous to Weapons Possessed by Eighteenth-Century Militiamen

The *Heller* Court quickly dismissed the notion that the Second Amendment protected only those weapons in existence in the eighteenth century and withheld protection for weapons that are "useful in warfare." It went on to suggest that only weapons analogous to the kinds of arms owned by eighteenth-century militiamen at home receive protection by the Second Amendment. This is not a limitation on the degree of the technological advancement of the weapon, but rather of a weapon’s similarity to the kinds available for civilian use at the time. Presumably, this would include rifles, swords, knives, and pistols, along with blunt instruments and other similar tools, while excluding flamethrowers, artillery, machine guns, poison gas, tanks, nuclear

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156. District of Columbia v. Heller, 554 U.S. 570, 582 (2008) ("Some have made the argument, bordering on the frivolous, that only those arms in existence in the 18th century are protected by the Second Amendment. We do not interpret constitutional rights that way.").

157. *Id.* at 624 ("Read in isolation, Miller’s phrase ‘part of ordinary military equipment’ could mean that only those weapons useful in warfare are protected. That would be a startling reading of the opinion, since it would mean that the National Firearms Act’s restrictions on machine guns (not challenged in Miller) might be unconstitutional . . . ." (quoting United States v. Miller, 307 U.S. 174, 178 (1939))).

158. *Id.* at 627–28. It may be objected that if weapons that are most useful in military service—M-16 rifles and the like—may be banned, then the Second Amendment right is completely detached from the prefatory clause. But as we have said, the conception of the militia at the time of the Second Amendment’s ratification was the body of all citizens capable of military service, who would bring the sorts of lawful weapons that they possessed at home to militia duty. It may well be true today that a militia, to be as effective as militias in the 18th century, would require sophisticated arms that are highly unusual in society at large. Indeed, it may be true that no amount of small arms could be useful against modern-day bombers and tanks. But the fact that modern developments have limited the degree of fit between the prefatory clause and the protected right cannot change our interpretation of the right.

*Id.* (emphasis added).

159. See *id.* at 581 ("The term [arms] was applied, then as now, to weapons that were not specifically designed for military use and were not employed in a military capacity.").
ordnance, and other such weapon groups. The purposes of lawful self-defense are not restricted by limiting “arms” to semi-automatic long arms and pistols, under this test, because such weapons are of a similar—albeit, radically more advanced—kind to those possessed by the men who formed the early American militias.

The trouble with this test, however, is that it accomplishes precisely what the Court purported to avoid: a freeze on technological innovation. There were no “nonlethal” weapons in the eighteenth-century such as modern Tasers or pepper spray; thus, under this factor of analysis, such weapons—though useful for self-defense purposes—fall outside the protections of the Second Amendment. As this result essentially strips citizens of any definite legal right to purchase and use nonlethal weapons for the same lawful purposes suggested by the Court above, this test should be modified—or, at the very least, should be made subordinate to the other three considerations discussed above. As argued in Part III.D, this portion of the test should not consider the type of weapon possessed by eighteenth-century militiamen, but rather it should compare the destructive potential of a modern weapon to those possessed in the United States in the 1790s.

B. An Application of the Heller Standards to Certain Weapons Prohibited or Regulated by the Gun Control Act of 1968

In appraising the usefulness of the Heller standards, it is appropriate to apply them to some of the weapons currently prohibited under federal law. Some factors are far more useful than others in defining the limits of Second Amendment protection.

1. Short-Barreled Shotguns and Rifles

The GCA bans any shotgun with a barrel length of less than eighteen inches or an overall length of less than twenty-six inches. Similarly,

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160. See id. at 582.
162. See infra Part III.C.
163. See supra Parts III.A.1–3.
164. See 18 U.S.C. § 921(a)(6) (2006) (defining a “short-barreled shotgun” as a shotgun that has a barrel length of less than eighteen inches or a weapon made from a shotgun with an overall length of less than twenty-six inches); § 922(a)(4), (b)(4) (banning short-barreled shotguns).
rifles must be neither shorter than twenty-six inches nor have a barrel over sixteen inches in length to be lawful. Although a loophole exists for rifled weapons and shotguns not designed to be fired from the shoulder, the GCA effectively prohibits “sawed-off” shotguns and rifles. The Supreme Court has stated expressly that sawed-off shotguns are not constitutionally protected “arms” under the Second Amendment. As a definitely prohibited class of weapons, it is useful to apply the *Heller* standards to short-barreled shotguns and rifles to further define the extent of constitutional protections on “arms.”

Sawed-off shotguns are not “in common use” because they have been illegal since 1968. They are “unusual” for this reason as well, but they are not significantly more “dangerous” than full-length rifles or shotguns. Sawed-off shotguns resemble the old blunderbuss-type weapons of the highwayman, while short-barreled rifles are little more than high-powered pistols, both of which are analogous to weapons existing in the eighteenth century.

Only the final criteria—“not typically possessed by law-abiding citizens for lawful purposes”—provides disapproval for the short-barreled weapons under the *Heller* standards. A commonly cited purpose for shortening a shotgun or rifle barrel is the ease of concealing

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165. § 921(a)(8) (defining a “short-barreled rifle” as having a barrel length of less than sixteen inches or any weapon made from a rifle with an overall length of less than twenty-six inches); § 922(a)(4), (b)(4) (banning short-barreled rifles).

166. Both rifles and shotguns, as defined by the GCA, include only weapons “intended to be fired from the shoulder.” See § 921(a)(5), (a)(7). Therefore, weapons possessing rifling or firing shotgun shells that were originally designed to be fired with a pistol grip, with no butt stock at the end of the weapon, do not meet the definitions of “rifle” or “shotgun” and can have a barrel of any length.


In the absence of any evidence tending to show that possession or use of a ‘shotgun having a barrel of less than eighteen inches in length’ at this time has some reasonable relationship to the preservation or efficiency of a well regulated militia, we cannot say that the Second Amendment guarantees the right to keep and bear such an instrument.

Id.

168. § 922(b)(4).

169. Shorter shotgun barrels have been found to create a wider burst of buckshot at close proximity, but this does not occur with all cartridges. See Terry S. Moreau et al., Pellet Patterns Fired by Sawed-Off Shotguns, 30 J. FORENSIC SCI. 137, 146–47 (1985).

170. A “blunderbuss” is “a short gun with a large bore, firing many balls or slugs, and capable of execution within a limited range without exact aim.” II OXFORD ENGLISH DICTIONARY 332 (2d ed. 1989).

the weapon. This enables criminals to hide a high-powered weapon until the very moment they commit the actual crime. Combined with the devastating close-quarter power of the shotgun, a readily concealable weapon is highly attractive to a prospective assailant.

The Miller Court applied a different criterion in determining that no constitutional protection exists for sawed-off shotguns: possession of them lacks “some reasonable relationship to the preservation or efficiency of a well regulated militia.” While Heller has largely rendered the militia question moot, it is interesting to note the discrepancy between the pure militia-based approach of the older opinion and the newer rationales.

2. Machine Guns

A machine gun, as defined by the NFA and incorporated into the GCA, is any weapon that fires “automatically more than one shot, without manual reloading, by a single function of the trigger.” Currently, the GCA prohibits civilian use of only machine guns built after 1986; those built before are still available, subject to the provisions of the NFA. Heller heavily implied that regulations on machine guns were constitutionally permissible and, thus, that the weapons fall outside the range of Second Amendment protected “arms.” Before applying

172. E.g. Moreau, supra note 169, at 137 (“Criminals frequently shorten the barrels of rifles and shotguns to make them easier to conceal.”).


175. See Heller, 554 U.S. at 622 (“This holding is not only consistent with, but positively suggests, that the Second Amendment confers an individual right to keep and bear arms (though only arms that ‘have some reasonable relationship to the preservation or efficiency of a well regulated militia.’)’’ (quoting Miller, 307 U.S. at 178)). It is interesting that the Heller opinion derives an “individual right” from the Miller opinion when the latter clearly considers the common defense. See Miller, 307 U.S. at 178 (“Certainly it is not within judicial notice that this weapon is any part of the ordinary military equipment or that its use could contribute to the common defense.”) (citing Aymette v. State, 20 Tenn. (2 Hum.) 194, 158 (1840)). This issue falls outside the scope of this Comment.


178. See Heller, 554 U.S. at 624 (“Read in isolation, Miller’s phrase ‘part of ordinary military equipment’ could mean that only those weapons useful in warfare are protected. That would be a startling reading of the opinion, since it would mean that the National Firearms Act’s restrictions on machine guns (not challenged in Miller) might be unconstitutional . . . .” (quoting Miller, 307 U.S. at 178)).
the *Heller* factors to this class of weapons, one must presume that they do not, in fact, fall within the scope of the Second Amendment.

Although machine guns have been largely regulated since 1968,\(^{179}\) over 240,000 were lawfully registered with civilians as of 1995.\(^ {180}\) Whether this is enough to classify these automatic weapons as “in common use” is unclear, unfortunately. As noted above, this also suggests uncertainty regarding whether the weapon is “unusual” or “typically” used for lawful purposes. Indeed, relatively few crimes are committed with automatic weapons compared to handguns,\(^ {181}\) though this may have more to do with the limited availability of machine guns than the desirability of their characteristics.\(^ {182}\)

Because even early weapons classified as machine guns could fire several hundreds of rounds per minute,\(^ {183}\) one could consider them “dangerous”—but, as previously stated, this says little by itself, since all weapons are meant to be “dangerous.”\(^ {184}\) By applying a consideration of “dangerousness” relative to the weapons possessed by eighteenth-century militiamen, however, it becomes clear that modern automatic weapons are orders of magnitude beyond the “Brown Bess” in terms of their capabilities.\(^ {185}\) And while one may contend that basing a consideration of “dangerousness” solely upon rate of fire is a purely academic fiction, history dictates otherwise.\(^ {186}\) Thus, although most of the *Heller*

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179. There are several ways to acquire a machine gun legally under federal law, such as purchasing a machine gun that was manufactured before 1986 and paying a $200 tax. See § 922(o).

180. ZAWITZ, supra note 173, at 4.

181. See id. at 1 (“Although most crime is not committed with guns, most gun crime is committed with handguns.”).

182. This supposition is based on long-standing restrictions on machine guns under federal law. See supra note 177 and accompanying text.

183. See supra Part III.A.2.

184. See supra Part II.A.1.

185. While eighteenth-century muskets produced up to three shots per minute, see supra Part II.A.1, a top-of-the-line M134 “Minigun” can churn out three to four thousand rounds per minute. TAE-WOO LEE, MILITARY TECHNOLOGIES OF THE WORLD 118 (2009). Because these weapons were in production before 1986, it is theoretically possible that some are lawfully owned by civilians today. See, e.g., MICHAEL GREEN & GREY STEWART, WEAPONS OF THE MODERN MARINES 41 (2004) (describing the development of the M134 for use during the Vietnam War). It is odd that, at least under federal law, civilians could own such a weapon.

186. For a particularly moving account of the terrible power of machine guns during the Battle of the Somme in World War I, see ELLEN SCHOECK, I WAS THERE: A CENTURY OF ALUMNI STORIES ABOUT THE UNIVERSITY OF ALBERTA, 1906–2006 at 139 (2006). George Coppard, a gunner at the battle, recalls his experience:

The next morning [July 2] we gunners surveyed the dreadful scene in front of us . . . . It became clear that the Germans always had a commanding view of No Man’s land. [The British] attack had been brutally repulsed. Hundreds of dead were strung out like
standards are unclear as to the status of machine guns, their extremely dangerous character likely places them outside the scope of the Second Amendment.

3. Destructive Devices

The term “destructive devices,” as defined in the GCA, serves as a catchall category for non-antique propellant weapons excluding shotguns, rifled weapons with a bore diameter of less than one-half inch, and small pyrotechnic devices. This classification includes bombs, grenades, rockets, mines, and non-antique non-shotguns with a bore diameter greater than one-half inch. This encompasses too many items to address individually, but the very name of the category suggests the primary consideration central to their regulation: dangerousness. Each of these weapons, possibly excluding large-caliber rifled weapons, is presumably capable of killing or maiming multiple people at once by itself. Additionally, the typical “lawful citizen” presumably has little need for the killing power represented by a grenade or bomb; such items cannot readily be employed for self- or home-defense purposes. Even without considering the “common use” factor, it is apparent from the preceding discussion of machine guns that the “danger” factor alone may render a weapon worthy of regulation. Thus, weapons in the “destructive device” category—except, perhaps, large-caliber weapons—are likely not Second Amendment “arms.”

Large-caliber weapons, however, constitute a dilemma. Unlike bombs and other explosives, this category of weapons actually does have a legitimate use: hunting. For reasons discussed below, however,
large-caliber ammunition effectively fits into a similar category as another, presumably legitimately, regulated category of weapons: armor-piercing ammunition.

4. Armor-Piercing, High-Caliber, and Expanding Ammunition

The GCA prohibits the manufacture, sale, and delivery of armor-piercing ammunition.192 Exceptions exist for rounds determined to be “primarily intended to be used for sporting purposes” or “industrial purposes.”193 This type of ammunition normally contains a hardened metal core intended to retain its shape upon impact with a target, in contrast to the softer lead rounds of conventional ammunition.194 Consequently, although armor-piercing rounds have the capacity to penetrate deeper into the body than conventional bullets, the wounds they create are often narrower than wounds caused by lead-core ammunition.195

It is this penetration capability, however, that presumably leads to a presumption of unlawfulness, although documented cases of actual killings with armor-piercing ammunition are rare.196 Indeed, although these types of ammunition are frequently referred to as “cop-killer” bullets, “[t]his was something of a misnomer since, at the time the law was voted on, there were no documented cases of a policeman being killed by such a bullet.”197 Additionally complicating the problem is that ordinary hunting ammunition for rifles has always been capable of penetrating most body armor, despite its legitimate uses.198 For this reason, it is more useful to include weapons firing high-caliber rounds199—though technically classified as “destructive devices”—in a discussion of prohibited ammunition rather than in a discussion of explosive devices. Because their increased mass makes it difficult for the wind to impact their trajectory, high-caliber bullets are highly

193. § 921(a)(17)(C).
195. Id.
196. Id. (“Killings involving penetration of body armor, however, are close to nonexistent.”).
197. Id.
198. Id.
199. High-caliber rounds means ammunition larger than .50 caliber, as discussed in Part III.B.3.
preferred for long-range shooters.\textsuperscript{200} The concern for the long-range-shooting capabilities and the armor-piercing character of the .50 caliber round led to a ban on .50 caliber rifles in California in 2004.\textsuperscript{201}

Under the \textit{Heller} standards, then, are restrictions on expanding, armor-piercing, and high-caliber bullets permissive? Expanding bullets, despite being illegal in international military use, certainly appear to have certain advantages in terms of “stopping power” over traditional ammunition and, lacking an armor-penetrating character, appear to have a legitimate self-defense character. It is uncertain whether they are “in common use,” however, and the eighteenth-century militia certainly lacked ammunition designed to “mushroom” for maximum tissue damage. They may be “dangerous,” but they are not significantly more so than traditional ammunition; indeed, as noted above, their lack of over-penetration suggests that they may actually be slightly less dangerous than standard ammunition. Under this analysis—despite the international ban on their use—they seem to constitute legitimate “arms” under the \textit{Heller} test.

The low rate of crime associated with high-caliber and armor-piercing bullets appears to suggest that their “typical” use is lawful in nature: namely, hunting and sport shooting. Again, the eighteenth-century militia would have lacked any analogue to these kinds of bullets, given the round musket balls of the day,\textsuperscript{202} and the “common use” of these ammunition types is questionable. Unlike expanding bullets, however, these classes of ammunition do appear to share one significant factor: their “dangerous” character. The long-range, armor-piercing capabilities of even a .50 caliber Browning Machine Gun (BMG) round\textsuperscript{203} and smaller “armor-piercing” ammunition both appear to possess significant potential—actually realized or not—to cause great

\begin{thebibliography}{99}
\bibitem{202} Although, amusingly, the bore on the “Brown Bess” was well over one-half inch in diameter, see Lux, \textit{supra} note 11, at 85, meaning that, if it were produced today as a rifled weapon, the eighteenth-century musket of choice would be classified as a “destructive device” under the GCA. 18 U.S.C. § 921(a)(4)(B) (2006).
\bibitem{203} Leung, \textit{supra} note 201 (noting the round is able to penetrate armor more than a mile away). It should also be noted that a .50 caliber BMG round is not a “destructive device” under federal law, as it is fired from rifles whose bores do not exceed “one-half inch in diameter,” although it equals that size. 18 U.S.C. § 921(a)(4)(B).
\end{thebibliography}
harm despite any legitimate uses they may possess. Therefore, they
do not probably do not fall within the protection of the Second Amendment
under the *Heller* guidelines.

C. An Application of the *Heller* Standards to New, Advanced Weaponry

1. The Active Denial System

Consider the military-grade Active Denial System (ADS)—which, in
smaller form, is currently being marketed to law enforcement agencies,
the military, and private entities as the “Silent Guardian.” This device,
which has a range of up to 500 meters, causes an “intolerable heating
sensation” to the target or targets. According to the U.S. military,
targets stand a 0.1% chance of suffering actual physical injury. Forgetting,
for the moment, that the weapon is untested in combat—although, again reportedly, it has been tested more than 11,000 discrete
times on over 700 volunteers—the initial reports indicate the weapon
may be a promising new way to limit the deaths of protesters or other rioters.

While seemingly humanitarian on its face, the device was designed
with one goal in mind: to cause pain without physical injury. It
accomplishes this by sending penetrating rays barely one sixty-fourth of

capabilities/products/silent_guardian/ (last visited Nov. 12, 2011) (describing commercial uses for
the “less-than-lethal” weapon alongside military ones).
205. Dan Cairns, *US Army Heat Ray Gun in Afghanistan*, BBC NEWS (July 15, 2010),
http://www.bbc.co.uk/newsbeat/10646540.
206. DEP’T OF DEF., JOINT NON-LETHAL WEAPONS PROGRAM, ACTIVE DENIAL TECHNOLOGY
Sheet%20Oct%202011.pdf [hereinafter ACTIVE DENIAL TECHNOLOGY FACT SHEET].
207. Cairns, supra note 205.
208. Id.; see also Susan LeVine, JOINT NON-LETHAL WEAPONS PROGRAM, THE ACTIVE DENIAL
SYSTEM: A REVOLUTIONARY NON-LETHAL WEAPON FOR TODAY’S BATTLEFIELD 5 (2009),
TRDoc.pdf (“Concerns that a human target could accidentally be overexposed are mitigated by the
fact that the beam is turned off immediately by releasing the trigger or at the expiration of a preset
time. . . . [T]he output power level can be adjusted for different ranges to ensure safety parameters
are not exceeded.”).
209. See David Hambling, *US Military in Denial over ‘Pain Ray’: Concern over the Safety of a
Crowd Control System in Tests Sparks Fears About Its Use in Operational Situations*, THE
GUARDIAN (London), Dec. 12, 2007 (“But what about a system that inflicts pain at a distance,
without contact? That’s the idea behind the Active Denial System now being tested by the US
military. It is designed to cause excruciating pain without injury by projecting a beam of energy
about two meters across.”).
an inch into the skin of a target. The pain, however, is indeed intense. A reporter who volunteered to serve as a test subject for the Silent Guardian civilian model of the ADS recently wrote that exposure to the weapon—even for a fraction of a second—was “a bit like touching a red-hot wire, but there [was] no heat, only the sensation of heat. There [was] no burn mark or blister.”

One cannot understate the potential for abuse of such a weapon. Armed with a device guaranteed—intended, even—purely to cause physical pain, without leaving the telltale marks of physical abuse, what is to stop a private entity with enough money to acquire one of these devices from using the device for purely torture purposes? More importantly for the purposes of this Comment, are these “pain rays” constitutionally protected “arms”?

Applying the criteria derived from Heller, a number of contradictory conclusions arise. First, the weapon is not “in common use” currently. Second, the weapon is certainly “unusual” in that it is unprecedented, yet it is not necessarily “dangerous” in the sense that, in its current form, it supposedly causes no or very little physical injury. Third, it was created specifically for non-lethal crowd control. So it is “not typically possessed by law-abiding citizens for lawful purposes” presently, because, as a cutting-edge development in technology, it has not yet seen widespread commercial use. It is not similar to a sawed-off shotgun in that it is unlikely to be any more popular for committing crimes than other nonlethal means of self-defense. It also lacks an analogue to any

210. See Active Denial Technology Fact Sheet, supra note 206, at 1.
212. See supra Part III.A.1 (discussing the problems—particularly circular reasoning—of the “in common use” standard).
213. That the ADS device causes little injury is still disputed—at least one commentator has suggested that the weapon has the potential to cause life-threatening burns across much of the body. David Hambling, Army Orders Pain Ray Trucks; New Report Shows “Potential for Death,” Wired (Oct. 10, 2008, 9:17 AM), http://www.wired.com/dangerroom/2008/10/army-ordering-p/. As described by Dr. Jürgen Altmann, a “less-than lethal weapons expert,” some risks exist because “the ADS provides the technical possibility to produce burns of second and third degree. . . . [S]uch burns would occur over considerable parts of the body . . . . Without a technical device that reliably prevents re-triggering on the same target subject, the ADS has a potential to produce permanent injury or death.” Id. (internal quotation marks omitted).
214. See District of Columbia v. Heller, 554 U.S. 570, 625 (2008). Additionally, although the exact price of such a device is not public knowledge at present, estimates range up to the hundreds of thousands of dollars, making their purchase by the average citizen practically impossible. C.J. Lin, Authorities at Castaic Jail Poised to Use Assault Intervention Device, Daily News (L.A.), Aug. 20, 2010, at A1 (“A Raytheon spokeswoman declined to state the cost of the machine, but one deputy estimated just the hardware costs at least hundreds of thousands of dollars.”).
weapon owned in the eighteenth century because it represents revolutionary technology capable of producing pain independent of injury; the weapons of the Framers were, by contrast, rudimentary guns, blunt weapons, and bladed instruments. Under these criteria alone, the Silent Guardian would almost certainly not fit the definition of “arms” protected by the Second Amendment.

Yet, is this a desirable result? Granted, the device is not without controversy, because of claims that one could easily disable the safety settings and that the weapon’s long-term effects are as-yet unknown despite the extensive testing performed by the military. Presuming, however, that tampering with the safety system on a Silent Guardian would be regulated similarly to the “making” of firearms under the NFA and that the results of the military testing performed on the weapon’s effects are accurate, the nonlethal, pain-inducing weapon appears perfect for self-defense, as opposed to criminal activities. Self-defense being one of the “lawful purposes” suggested by Heller, there appears to be no valid reason, pragmatically speaking, for excluding this weapon from the protected class of “arms” under the Second Amendment, aside from pure technophobia. Perhaps unfortunately, however, a strict application of the Heller criteria forces the conclusion that these weapons are not protected arms, regardless of their benefits.

2. Hand-Held Class IV Lasers

The Code of Federal Regulations defines a Class IV laser as “any laser that permits human access during operation to levels of laser radiation in excess of the accessible emission limits” and is even more

215. See Hanlon, supra note 211 (speculating that one could, presumably, disable the safety features); Noah Shachtman, Pain Ray Injures Airman, WIRED (Apr. 6, 2007, 10:54 AM), http://www.wired.com/dangerroom/2007/04/pain_ray_injure/ (reporting that a U.S. airman received second-degree burns from exposure to the device).


217. It is perfect for self-defense, not criminal activities, in that a criminal wielding a hypothetical handheld version of the Silent Guardian or the ADS could cause only a single person at a time to feel pain, while failing to intimidate anyone else from approaching him. Logically speaking, people do not “rush” gunmen for fear of being shot—but if the weapon lacks the capability of killing them, that fear is lost. If a cashier has no reason to fear a would-be robber’s weapon, then he has no incentive to cooperate with the robber.

218. Heller, 554 U.S. at 628.

powerful than a Class IIIb laser, which is considered an “acute hazard to the skin and eyes from direct and scattered radiation.”\textsuperscript{220} Under these regulations, a Class IV laser is any laser that produces a beam with a minimum of .5 watts of power.\textsuperscript{221} For reference, the next most powerful laser classification, the Class IIIb, ranges between .005 and .5 watts,\textsuperscript{222} and it can still be hazardous to the eye upon direct eye exposure.\textsuperscript{223}

The Code of Federal Regulations mandates that manufacturers equip a Class IV or Class IIIb laser with a “remote interlock connector,”\textsuperscript{224} a “key-actuated master control,”\textsuperscript{225} and an “emission indicator” that signals when the beam is active\textsuperscript{226} along with other safety features required of lower powered lasers.\textsuperscript{227} If Class IV lasers are considered “arms” alongside a handgun, however, then the requirements imposed by these safety provisions begin to look disturbingly similar to the requirement of a trigger lock in \textit{Heller}—which, in the words of the Court, “makes it impossible for citizens to use them for the core lawful purpose of self-defense and is hence unconstitutional.”\textsuperscript{228}

But \textit{are} hand-held Class IV lasers “arms”? If implemented as weapons, their usefulness would be their capacity to permanently blind a target struck by even reflected rays; they lack the sophistication, at the moment, to match the stopping power of conventional firearms. One should note that the Convention on Certain Conventional Weapons, Protocol IV, expressly prohibits the use of “laser weapons specifically designed, as their sole combat function or as one of their combat functions, to cause permanent blindness to unenhanced vision.”\textsuperscript{229} The United States is a party to this treaty and is thus bound by international
law to refrain from employing blinding lasers in battle. The convention is inapplicable to the civilians of the signatory states, however, and so a hand-held “combat” Class IV laser would, theoretically, be available to civilians.

Again, to answer the question of the “arms” status of Class IV lasers, one must consult the criteria derived from Heller. First, these lasers are not “in common use” currently. Second, they are certainly “unusual” because they are unprecedented in civilian markets, and they are “dangerous” in the sense that permanent blindness is a highly probable result of employing such a tool. Finally, they were not created specifically for a military purpose. Given the Court’s statement that “arms” need not refer purely to weapons with a military purpose, however, this is not fatal to the weapon’s classification. They are not “typically possessed by law-abiding citizens for lawful purposes” presently because, again, they represent revolutionary developments in technology and have only recently become commercially available.

Again, however, these tools are not analogous to a sawed-off shotgun because they are unlikely to be any more popular for committing crimes than other nonlethal means of self-defense. Finally, unless history is very much mistaken, the Founding Fathers did not possess lasers of any sort. It should come as no great shock, then, to suggest that these items are not analogous to any weapon owned in the eighteenth century. Thus, the Class IV lasers are almost certainly not “arms” under Heller, despite being less “dangerous” than modern firearms.

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231. See supra Part III.A.1 (discussing the problems—particularly circular reasoning—of the “in common use” standard).

232. See S3 Arctic Series, supra note 64 (offering the lasers for sale to the public).

233. Heller, 554 U.S. at 581 (“The term was applied, then as now, to weapons that were not specifically designed for military use and were not employed in a military capacity.”).

234. Heller, 554 U.S. at 625.

235. Jason Jacobs, Wicked Lasers Spyder III Arctic Blue Laser, TECHWARELABS (Aug. 29, 2010) (“However, blue direct blue laser diodes have just now become available in the consumer market. Wicked Lasers has created partnerships with the world’s leading blue diode manufacturers to create the world’s first 445nm direct blue diode portable laser, the Arctic.” (quoting the Wicked Lasers website) (internal quotation marks omitted)).
D. A Possible Interpretive Framework for the Heller Standards

The Heller Court was decidedly unconcerned with vagueness in the “standards” it suggested as proper. As seen in the preceding analysis, there is very little definite meaning in the majority of these criteria. One finds little consistency in applying them to both conventional and advanced weaponry, even as part of a factors test—which the Court never stated them to be. Nevertheless, this Comment contends that the only way to craft a comprehensive analytical framework from the four standards derived from Heller is to apply them as part of a factors test, each independent of the other.

1. A Proposed Framework

Although the Court seemed to imply that “in common use” was the sole bright-line test to be applied in a consideration of a weapon’s protected status, the preceding discussion shows that “in common use” holds very little value as an objective standard. This Comment

236. See Heller, 554 U.S. at 635. Justice Breyer chides us for leaving so many applications of the right to keep and bear arms in doubt, and for not providing extensive historical justification for those regulations of the right that we describe as permissible. But since this case represents this Court’s first in-depth examination of the Second Amendment, one should not expect it to clarify the entire field . . . . And there will be time enough to expound upon the historical justifications for the exceptions we have mentioned if and when those exceptions come before us.

237. It is possible that, given the relatively small amount of Second Amendment jurisprudence on the matter, the Court left the matter intentionally vague. Even if this is the case, however, the Heller standards serve little use to guide any inquiry into the matter.

238. See Heller, 554 U.S. at 627. Not once did the Court refer to the analysis it uses as anything but a singular test: “Miller said, as we have explained, that the sorts of weapons protected were those ‘in common use at the time.’ We think that limitation is fairly supported by the historical tradition of prohibiting the carrying of ‘dangerous and unusual weapons.’” Id. (citations omitted) (citing United States v. Miller, 307 U.S. 174, 179 (1939)).

239. See id. (citing Miller, 307 U.S. at 179).

240. This Comment is certainly not the first to note the problems with “in common use” as a standard. See, e.g., Eugene Volokh, Implementing the Right to Keep and Bear Arms for Self-Defense: An Analytical Framework and a Research Agenda, 56 UCLA L. REV. 1443, 1478–81 (2009) (discussing six reasons why it is not clear how courts should apply the Heller standard); Adam Winkler, Heller’s Catch-22, 56 UCLA L. REV. 1551, 1560–61 (2009) (“In contrast to handguns, the Court suggests that machine guns might be banned because they are ‘dangerous and unusual weapons’ that are not in ‘common use.’ But why are machine guns so rare? Because federal law has effectively prevented civilians from purchasing them for the past seventy-five years.” (citing Heller, 554 U.S. at 624–25)).
contends, as well, that *Heller* both misquotes and, consequently, derives an incorrect holding from *Miller*. The phrase “common use” appears only once in *Miller*.\(^{241}\) It does not announce a standard, but, rather, refers to history:

The signification attributed to the term Militia appears from the debates in the Convention, the history and legislation of Colonies and States, and the writings of approved commentators. These show plainly enough that the Militia comprised all males physically capable of acting in concert for the common defense. ‘A body of citizens enrolled for military discipline.’ And further, that ordinarily when called for service these men were expected to appear bearing arms supplied by themselves and of the kind *in common use at the time*.\(^{242}\)

Had the *Heller* Court actually implemented the standard used to uphold a ban on sawed-off shotguns in *Miller*, however, this Comment would instead discuss what weapons have “some reasonable relationship to the preservation or efficiency of a well regulated militia”\(^{243}\) instead of a “common use” critique. As the *Heller* Court noted, an application of the militia-utility standard might very well mandate a finding that the long-standing federal restrictions on machine guns or other weapons of potential use to a militia are unconstitutional—a result that the Court appeared unwilling to accept.\(^{244}\) Nevertheless, the fact remains that the importance the *Heller* Court placed on “in common use” is nothing like that found in *Miller*, from which such precedent was supposedly derived in the first place.

Instead of simple reliance on the “common use” test, this Comment proposes—based on the criteria suggested in *Heller*—a two-part inquiry. In order to qualify as protected arms under the Second Amendment, this test would require (1) that the weapon pose no significantly greater threat to human life than a handgun and (2) that the innate characteristics of the weapon generally favor legitimate purposes over criminal ones. The “common use,” “typically possessed,” and “unusual” portions of the *Heller* test would all serve as useful factors in applying the second part of this new test. The “dangerous” and “lawful purposes” elements are

\(^{241}\) *Miller*, 307 U.S. at 179.
\(^{242}\) *Id.* at 179 (emphasis added).
\(^{243}\) *Id.* at 178.
\(^{244}\) *Heller*, 554 U.S. at 624 (“That would be a startling reading of the opinion, since it would mean that the National Firearms Act’s restrictions on machine guns (not challenged in *Miller*) might be unconstitutional, machine guns being useful in warfare in 1939.”).
more precisely defined under this inquiry than under the *Heller* criteria, yet they remain true to the opinion’s spirit.  

Even under this streamlined test, however, the required analysis is neither easy nor remotely close to perfect. The emphasis that the new test would place on evaluating the relative “danger” a weapon poses is a particularly odious—but necessary—consideration, for it necessitates a crude weighing of raw human lives against the utility that a particular weapon bears for lawful purposes. Yet, however unpleasant this requirement may appear, it is absolutely essential to the creation of a sensible and comprehensive framework for Second Amendment analysis. Without a frank, clinical appraisal of a weapon’s destructive capacity, courts are left merely with its simple popularity and the historical blessing or stigma attached to it.

Note that this test bases the consideration of danger upon the handgun rather than on the rifle or other hunting weapon. The reason for this is twofold. First, although handguns are often both highly lethal and easy to conceal, they nevertheless provide no significantly greater utility to a criminal than they would to an individual merely trying to defend himself. Second, the Supreme Court has already blessed the use of the handgun as a baseline weapon for self-defense purposes; it is beyond both the scope and the intent of this Comment to argue with the Court.

245. Although similarity to eighteenth-century weapons is, as this Comment hopefully showed, perhaps the least useful of the *Heller* standards in determining the value of a weapon, the nature of the first part of the proposed test incorporates, perhaps, a more intuitive evaluation of these criteria. That is, a court ought to assess “dangerousness” in relation to eighteenth-century firearms rather than in a void. The handgun replaces the musket in the proposed test—the handgun being the spiritual descendant of the musket in terms of its “common use”—only because the Supreme Court has effectively blessed the use of the handgun as a baseline weapon. See id. at 627–29.

246. For example, the “blackjack”—a kind of small, easy-to-conceal truncheon—was reviled by the Michigan Supreme Court as having “the reputation of being a characteristic weapon of urban gangsters and rowdies.” See *People v. Brown*, 235 N.W. 245, 247 (Mich. 1931) (en banc) (internal quotation marks omitted). Despite the fact that such a weapon is far less lethal than a handgun, the *Brown* court nevertheless ruled that, due to its reputation as a weapon of criminals, it was not protected under the state constitutional right to bear arms. *Id.* Such a stigma may prove illustrative if it manages to highlight the characteristics of a weapon that make it desirable to criminals, however, and for this reason it is useful to at least be mindful of the popularity a weapon holds with criminals in considering whether that weapon should fall within the protection of the Second Amendment.

247. Handguns provide no greater utility to a criminal than to an individual defending himself in the sense that a homeowner seeking to defend himself from a robber would have every bit as much use for such a weapon as would the robber seeking to harm him. It is an uneasy equilibrium, to be sure, but given the enshrined status of the right to bear arms in this nation’s history and Constitution, it is an equilibrium that the law must accept.

This test is in no way contradictory to the considerations the Court has already articulated. It merely consolidates and prioritizes those criteria based on the preceding analysis. By emphasizing the inherent characteristics of a weapon over its mere popularity, this new test hopefully accomplishes a comprehensive, sensible framework for both limiting the extent of arms protected by the Second Amendment and simultaneously extending that protection to advanced, previously inconceivable nonlethal weapons.

2. Application of the Proposed Framework

a. Short-Barreled Shotguns and Rifles

As has already been discussed, the chief advantages gained from shortening the barrel of either a shotgun or a rifle lie in the greater ease of concealment of such weapons after modification, as these weapons are not markedly more “dangerous” after barrel shortening.249 Both are more powerful than most handguns, but no more so than a standard, unmodified rifle or shotgun;250 thus, one may conclude that these weapons do not pose a significantly greater danger to human life than a handgun would. For this reason, short-barrel shotguns and rifles would pass the first part of this proposed two-part test.

Yet under the second criterion—that the weapon’s innate characteristics must generally favor legitimate purposes over criminal ones—these weapons both fail to find protected status as “arms.” As discussed, the prospect of an easy-to-conceal, high-powered weapon is extremely attractive for criminal purposes,251 while a person seeking only self-defense would find it no more advantageous to use such a weapon than he would a handgun. Thus, Second Amendment protection does not, and should not, extend to short-barreled rifles and shotguns.

b. Machine Guns

As noted earlier, machine guns, in general, are markedly more lethal than most handguns.252 This lends itself to the conclusion that the

249. See supra notes 169–73 and accompanying text.
250. See supra note 169 and accompanying text.
251. See ZAWITZ, supra note 173, at 2.
252. Machine guns are more lethal than handguns in terms of potentially lethal shots each is generally capable of firing within the same time period. See supra notes 183–86.
hypothetical legitimate self-defender likely would not simply “spray and pray” if he actually sought to defend himself from an assault, for fear of hitting a family member or innocent bystander. A criminal on a killing spree, on the other hand, probably would have no compunction about such an act. Because they thus fail both parts of the proposed test, machine guns are not protected by the Second Amendment.

c. Class IV Lasers

Blinding lasers do not constitute a greater risk to human life than a handgun does, despite their ability to blind.253 They have little use for a criminal, save perhaps blinding a witness to prevent him from identifying the criminal. But there are already plenty of other ways in which to accomplish such a purpose,254 and a victim need only shield his eyes to prevent being harmed by a laser. For this reason, although they were not necessarily designed as weapons, this Comment’s proposed test indicates that Class IV lasers should be protected under the Second Amendment.

IV. CONCLUSION

Although the Supreme Court spent more than two centuries in near total silence on the issue of what “arms” are protected by the Second Amendment, the recent application of the right to bear arms against the states necessitates the creation and articulation of a coherent, precise standard to evaluate the lawfulness of any regulation of both current and future weapons. Without such a standard to guide future lawmaking—that is, relying on the current, underdeveloped standard—the level of uncertainty regarding the kinds of “arms” that can be lawfully banned will only increase as weapons technology continues to evolve and develop. Already modern weapons are totally alien in comparison with the muskets of the eighteenth-century militiamen; the arms they wielded bear little resemblance to those of the modern day. Yet, perhaps, by applying considerations such as those advanced in Heller under a more definite, concrete framework—such as that proposed in this Comment—the Court can articulate a comprehensible and comprehensive standard to settle, once and for all, the true scope of Second Amendment “arms.”

253. A gun may also blind, but any wound caused by a bullet to the eyes would likely cause far greater harm than blindness alone.

254. The most obvious method is simply gouging out the victim’s eyes, though this is certainly more difficult than casually blinding a victim with a laser.