

No. 18-843

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IN THE  
**Supreme Court of the United States**

IVAN PENA, ET. AL,

*PETITIONERS,*

v.

MARTIN HORAN, DIRECTOR, CALIFORNIA DE-  
PARTMENT OF JUSTICE BUREAU OF FIREARMS,

*RESPONDENT.*

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*On Petition for Writ of Certiorari to the  
United States Court of Appeals for the Ninth Circuit*

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**BRIEF FOR THE CATO INSTITUTE  
AS *AMICUS CURIAE*  
IN SUPPORT OF PETITIONERS**

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Ilya Shapiro  
*Counsel of Record*  
Trevor Burrus  
Matthew Larosiere  
CATO INSTITUTE  
1000 Mass. Ave. N.W.  
Washington, D.C. 20001  
(202) 842-0200  
ishapiro@cato.org

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**QUESTION PRESENTED**

Can California condition the sale of semi-automatic handguns upon the incorporation of technology that doesn't exist?

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**INTEREST OF THE *AMICUS CURIAE*<sup>1</sup>**

The Cato Institute is a nonpartisan public-policy research foundation dedicated to advancing the principles of individual liberty, free markets, and limited government. Cato’s Center for Constitutional Studies was established to restore the principles of constitutional government that are the foundation of liberty. Cato conducts conferences and publishes books, studies, and the annual *Cato Supreme Court Review*.

This case interests Cato because it concerns the fundamental individual right to keep and bear arms. Its resolution could help curb longstanding abuses of this important constitutional protection.

**INTRODUCTION AND  
SUMMARY OF ARGUMENT**

One year before this Court decided *D.C. v. Heller*, California’s Crime Gun Identification Act of 2007 was signed into law by Governor Arnold Schwarzenegger, becoming the first legislation to require “microstamping” technology to be implemented into firearms in the United States. Cal. Penal Code § 12126. Because of debate over the feasibility of microstamping and patent encumbrance, the requirement’s implementation was delayed. In 2013, shortly after the microstamping patent expired, but before any evidence proved microstamping to be either technologically or economically feasible, California Attorney General Kamala Harris announced that the microstamping requirement had cleared all hurdles and would immediately

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<sup>1</sup> Rule 37 statement: All parties received timely notice of intent to file this brief, and have consented. No counsel for any party authored any part of this brief and no person or entity other than *amicus* funded its preparation or submission.

be required on all new semiautomatics. Bob Egelko, *Gun Control: Cartridge ID Law to Take Effect*, SFGate (May 18, 2013) <https://bit.ly/2Ut9QeA>.

There are a number of problems with California’s “Unsafe Firearms Acts,” including the microstamping requirement, which are explored thoroughly by other *amici*, but one stands out: the technology to do what California demands does not actually exist. While a patent exists and prototypes were tested, the concept remains “unreliable, easily defeated and simply impossible to implement.” David Maccar, *Proposed Law to Ban All Handguns Without Microstamping Tech*, Range365 (Aug. 10, 2017), <https://bit.ly/2t4ZupD>. Due to the complexity of firearm operation and the technical hurdles posed by the law’s requirement, a technical primer on the mechanical issues poised by the microstamping requirement would be helpful, which this brief aims to provide. The only conclusion to draw is that the California law mandates a practical impossibility and thus works a categorical ban on semi-automatic handguns, contravening the core of *Heller*.

## ARGUMENT

### I. THIS CASE PRESENTS A CATEGORICAL BAN THAT—LIKE THE ONE IN *HELLER*—FAILS ANY LEVEL OF SECOND AMENDMENT SCRUTINY

If one thing is clear in Second Amendment jurisprudence, it’s that a categorical ban on handguns is unacceptable. *D.C. v. Heller*, 554 U.S. 570, 628–29 (2008) (“Under any of the standards of scrutiny that we have applied to enumerated constitutional rights, banning . . . ‘the most preferred firearm in the nation

to ‘keep’ and use for protection of one’s home and family,’ would fail constitutional muster.”) (citing *Parker v. D.C.*, 478 F.3d 370, 400 (D.C. Cir. 2007)). Since *Heller* was decided, lower courts have evinced a concerted effort to restrict the right to arms. Richard Re, *Narrowing Supreme Court Precedent from Below*, 104 Geo. L.J. 921, 962–63 (2016) (predicting that *Heller* “may soon be regarded as mostly symbolic”). In an ideal world, there would be no need to remind the lower courts of the definition of “supreme,” but here we are.

California, in its categorization of whether handguns are “not unsafe,” requires, among other things, that a firearm imprint a unique identifying mark on each fired shell casing. Cal. Penal Code § 31900 *et seq.* As has been made painfully clear below, no firearms manufacturer has built this functionality into its guns. *Pena v. Lindley*, 898 F.3d 969, 983 (9th Cir. 2018) (noting that manufacturers have not “produced a functioning, commercially available semiautomatic pistol” equipped with the required technology). The lower court believed that gun companies are simply unwilling to implement the feature. *Id.* In truth, it’s irrelevant whether manufacturers are *willing* to implement such technology, because to do so they would have to rewrite the laws of physics and change the metallurgical properties of the materials used in firearms.

#### **A. The Microstamping Requirement Ignores the Fundamental Mechanics of Firearms**

All firearms operate from the pressure generated by the burning of a propellant, generally gunpowder. When the firing pin strikes the primer, the primer’s explosive compound detonates, igniting the gunpowder, which builds up great pressure, ultimately sending the bullet down the barrel. Frank C. Barnes *et. al.*,

*Cartridges of the World: A Complete Illustrated Reference for More Than 1,500 Cartridges* (2012). The bullet leaves the weapon at a high velocity because firearms are designed to contain the pressure generated by firing, tightly holding the cartridge case and giving the pressure no means of escape but by pushing the bullet down the barrel. Hornady Mfg. Co., *Hornady 9th Edition Handbook of Cartridge Reloading*, 40-48 (2012).

For all firearms, the firing chamber must be sealed tight so the bullet can efficiently travel down the barrel. In a single-shot firearm, this is a relatively straightforward affair, requiring a simple breech block (with a central hole for the firing pin) seated behind the cartridge that locks it firmly in the chamber. The chamber is the first section of the barrel, with an inside profile that matches closely to the outside profile of the ammunition cartridge. Damon Cali, *An Introduction to Rifle Chambers*, Bison Ballistics (Sept. 3, 2013), <https://bit.ly/2sVT8J2>. Because the pressure generated by the burning gunpowder is so high, the casing (usually made of brass) will expand and “flow” to fill the chamber. *Id.* Hence chamber walls must be smooth, as any imperfections would be imparted into the case upon firing, locking the case into the chamber.

Self-loading firearms, such as the semi-automatic pistols the “Unsafe Handgun Act” regulates, are slightly more complicated. First a cartridge is loaded into the chamber, usually by a slide that strips the cartridge from the magazine, forcing it up a ramp and into the chamber. The slide then closes on the cartridge, locking it in place. When the trigger is depressed and the weapon fired, the pressure forces the walls of the case outward, and the bullet down the barrel. This pressure—and the resulting recoil energy—then sets

into motion a mechanism to unlock the breech, and start the slide moving rearward. As the slide travels rearward, a small claw called the “extractor” pulls the fired case from the chamber. The slide and fired case then travel together until the case is struck by a protrusion called an “ejector,” jettisoning it from the gun.

The firearm mechanics discussed above show why California’s microstamping requirement is impossible. If we simplify an ammunition casing as a cylinder, there are only two surfaces where a casing could be stamped with “a microscopic array of characters that identify the make, model, and serial number of the pistol”: the sidewalls and the base (where the primer is located). Cal. Penal Code § 12126. The end which contains the bullet is unusable because the bullet presumably leaves the casing upon firing, and the opening is unusable due to inconsistent ammunition case length. Freedom Arms, *500 Wyoming Express Data Sheet*, (Feb. 15, 2008), <https://bit.ly/2BcVAPO> (“Case length shortening is normal. Tests have shown as much as .020 loss of length . . . through the same case.”). The case head (the area around the primer) is also unusable, both because the metal is too strong and because the entirety of the case head is already used for text identifying the cartridge and its manufacturer. Lewis E. Curtis III, *9mm Parabellum Headstamp and Case Type Guide*, 9-12, <https://bit.ly/2HFZwOA> (last visited Jan. 28, 2019). The text on the case head is of such varying depth, position, and quantity that it would render any stamp illegible. *Id.*

The sidewall of a firearm case is unusable for microstamping because of the tendency for cartridge cases to swell in the chamber. While an identifying mark could be imprinted into a cartridge casing from

the chamber, the result would be to lock the casing in the chamber and render the semi-automatic weapon a single-shot firearm: one shot and the firearm is further useless. Tiny burrs and imperfections in firearm chambers are known to wreak such havoc that chamber polishing is a common practice. Roy Seifert, *Polishing a Rifle Chamber*, The Kitchen Table Gunsmith, <https://bit.ly/2FZ42WI> (last visited Jan. 27, 2019).

The mechanics of this problem are not difficult to comprehend. To simplify the issue: imagine two paper cones placed inside each other. The chamber is the outside cone and the cartridge case the inside one, which is just a little smaller than the outside cone. Upon pulling the trigger, the bullet leaves the cartridge through the nose of the cone. The cartridge, as the smaller cone, expands to fill the chamber, the larger cone, but can still be extracted because there are no impediments to the case's rearward movement. Now, if some identifying impression is made, either as an impression in the chamber wall or a raised feature, this poses a significant problem. The case "flowing" to fill that feature in the chamber would be akin to driving a pin through the wall of the large cone into the smaller cone. When the smaller cone expands into the pin, it physically locks itself in the chamber.

That problem is exacerbated by cartridge casings' disuniformity, in both thickness and material. Brass cases vary wildly in thickness, which is problematic for making imprints even in this relatively soft material. Curtis, *supra* at 12–13. Steel and aluminum are two other common materials used in cartridge cases, and steel cases barely expand at all. *Id.* In fact, steel cases expand so poorly that the cases are often coated in lacquer to better seal the chamber during firing. Johnnie

Mock, *The Truth About Steel Cased Ammunition*, Arizona Weaponcraft Solutions, <https://bit.ly/2DHacsa> (last visited Jan. 28, 2019). The closest thing to uniformity in the construction of firearm cases is with the primer, the small insert at the base of the cartridge case that the firing pin strikes upon firing. To be sufficiently struck by a firing pin, the primer must be made of relatively soft, thin metal. Dave Campbell, *Back to Basics: Primers*, American Rifleman (Jan. 15, 2018), <https://bit.ly/2HAWdbz>. Because of material inconsistencies alone, reliably marking a cartridge case anywhere but on the primer is simply not possible.

**B. The Microstamping Requirement Imposes an Impossible Condition, and Thus Works a Categorical Ban**

As discussed above, there is no feasible way to reliably mark a fired cartridge casing aside from on the primer. California's law requires each fired case to be marked in two separate locations. Cal. Penal Code § 12126. But the requirement that the case be stamped anywhere aside from the primer renders compliance impossible for firearms manufacturers.

Where *Heller* concerned a ban on handguns in the home, California here attempts to ban *all new handguns*, obfuscated with the sleight of hand of a continually dwindling "grandfathered" list and the pretense of aiding police investigations. The state is essentially requiring gun manufacturers to be alchemists.

A ban on political speech, with an exception for those who turn base-metal printing presses into gold, would run afoul of the First Amendment. California's microstamping requirement is just as fanciful, and similarly runs afoul of the Constitution.

**II. BECAUSE CALIFORNIA’S LAW WORKS A CATEGORICAL BAN, THE COURT BELOW SHOULD BE SUMMARILY REVERSED, REGARDLESS OF THIS COURT’S DISPOSITION OF *N.Y. STATE RIFLE & PISTOL***

As the Court made clear in *Heller*, a “prohibition of an entire class of ‘arms’ . . . overwhelmingly chosen by American society” for lawful purposes are unconstitutional. 554 U.S. at 628. That’s precisely what California is attempting here: to slowly but surely ban the sale of new handguns—the weapons Americans overwhelmingly choose for self-defense—through the imposition of impossible conditions.

Although the resolution of *N.Y. State Rifle & Pistol Ass’n v. City of New York*, 883 F.3d 45 (2d Cir. 2018), *cert. granted*, 2019 WL 271961 (U.S. Jan. 22, 2019) (No. 18-280), may be helpful in the broader Second Amendment context, the questions presented in that case are fundamentally different from the issue here. Where *N.Y. State Rifle & Pistol* concerns a city law prohibiting the transportation of handguns beyond city limits, *id.* at 53, this case concerns a thinly veiled categorical prohibition on the sale of new handguns.

Unlike *N.Y. State Rifle & Pistol*, this case is not so easily categorized as some lower grade of interference with the Second Amendment right. Here there is an absolute ban on the sale of arms available to and overwhelmingly used for lawful purposes by Americans in the rest of the country, coupled with a tiny, ever-dwindling list of “grandfathered” models. Would a ban on “new automobiles that do not run on kryptonite” be anything less than a ban on new cars?

The Second Amendment was not written to reward lawmakers for using creative and confusing mechanisms to reach the same ends the Constitution forbids. Allowing this broad and unreasoned ban on new handguns contravenes the Founding-era understanding that the Second Amendment protects the right to buy and sell arms in common use across the country for all lawful purposes. *Heller*, 554 U.S. 624–28.

Indeed, the arms trade itself was manifestly dear to the Founders. On October 19, 1774, King George prohibited the importation of arms and ammunition into America. 5 Acts of the Privy Council of England, Colonial Series, A.D. 1766–1783, at 401 (2005) (James Munro & Almeric Fitzroy eds., 1912). These import restrictions sparked Americans to reclaim previously confiscated arms by force. Gov. Wentworth, letter to Gov. Gage, Dec. 14, 1774, in 18 The Parliamentary History of England, from the Earliest Period to The Year 1803, at 145 (T.C. Hansard: 1813). The restrictions were then summarily ignored, with Benjamin Franklin working in secret to import arms from the Spanish, French, and Dutch. Pennsylvania Reporter, Apr. 24, 1775, at 2, col. 1 (report from London, Feb. 16, 1775) (noting that three ships recently sailed from Holland, and three more from France “with arms and ammunition and other implements of war, for our colonies in America, and more preparing for the same place”). American colonists took up arms, sacrificed their homes, their lives, and their relationship with their mother country in no small part because of restrictions in the sale of arms. Such a severe restriction as California proposes on the sale of the most common arms in the country would strike the founding generation as eerily similar to the policies of King George III.

**CONCLUSION**

Because conditioning the exercise of a constitutional right on the use of nonexistent technology works an unconstitutional ban, and for the reasons stated by the petitioners and their other *amici*, the Court should grant the petition for a writ of certiorari and summarily reverse the court below.

Respectfully submitted,

Ilya Shapiro  
*Counsel of Record*  
Trevor Burrus  
Matthew Larosiere  
CATO INSTITUTE  
1000 Mass. Ave. N.W.  
Washington, D.C. 20001  
(202) 842-0200  
ishapiro@cato.org

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