Only a small subset of lawyers, however, are entitled to represent clients in one highly lucrative area of the law: patent prosecution before the U.S. Patent and Trademark Office (PTO). Patent prosecution involves a submission of a patent application to the PTO where it will undergo examination to determine whether a patent gets granted and, if so, its scope. In order to advise inventors on patent prosecution, lawyers must be members of the patent bar, which means they have passed a separate patent bar exam that primarily tests PTO procedures.

But the PTO restricts the ability of attorneys to sit for the patent bar exam. In order to be eligible to take the exam, attorneys typically must have an undergraduate degree in the sciences or engineering. Alternatively, they can have taken a substantial number of science and engineering courses as an undergraduate. Unless you meet these educational qualifications, you cannot represent inventors in patent prosecution.

While these rules may make sense for utility patents—those covering the functional characteristics of pharmaceuticals or nanotechnology—they make no sense whatsoever when applied to design patents—those covering the ornamental, aesthetic features of industrial design. And while there are fewer yearly design patent applications than utility patent applications, design patents are growing in number and importance. This new value is being captured exclusively by lawyers with science and engineering training—lawyers who have studied design, architecture, fashion, or art may not prosecute design patents.

To make the issue perfectly clear: A lawyer with a biology degree can prosecute pharmaceutical utility patents. That lawyer can also prosecute any other utility patent, regardless of the field. And that lawyer can prosecute design patents covering the shape of smartphones, the ornamental features of basketball shoes, or the design of children’s toys. But a lawyer with a degree in industrial design is prohibited from prosecuting any of these design patents.

The PTO’s own behavior indicates the irrationality of its design patent rules. When the PTO hires design patent examiners—those who will determine whether a design patent makes a novel and nonobvious contribution—they don’t hire chemists or computer engineers. They hire people with training in product design, fashion design, architecture, and the visual arts—exactly the sort of people who are most likely to be able to address these issues. But this isn't just irrational. It’s also increasingly harmful to the patent system. Because the PTO restricts access to the patent bar, there are relatively few attorneys eligible to prosecute design or utility patents. There are only about 43,000 registered patent attorneys and patent agents, yet one estimate suggests that there may be as few as 24,000 active patent prosecutors. These attorneys are responsible for prosecuting approximately 3 million patent applications over a five-year period (about 10 percent of which are design patent applications).

Fixing the Design Patent Bar: New Opportunities for Federal Lawyers

Christopher Buccafusco and Jeanne C. Curtis

If you’re a lawyer in good standing, you’re entitled to help clients with virtually any legal problem that they face. You can help them with complicated tax questions, represent them before the Environmental Protection Agency, and help them register copyrights and trademarks. And that’s the case whether you have ever studied accounting, environmental law, or intellectual property law.
And as is always the case with occupational licensing restrictions, the PTO's eligibility rules substantially increase the costs of filing for patents. With fewer attorneys to choose from, inventors are forced to pay higher prices for legal services. For many inventors, especially small-scale and independent inventors, these higher prices can mean the difference between obtaining patent protection or not. In addition, the PTO's eligibility rules also affect which attorneys can represent clients challenging the validity of already-issued patents in various forms of post-grant review. This means that the costs of clearing the system of low-quality patents is also much higher than it would be without these restrictions.

Finally, but perhaps no less important, the PTO's educational eligibility rules rule create structural biases against women attorneys. Because the patent bar only draws from science and engineering undergraduates, it reproduces the distorted gender profiles of those fields. The patent bar is approximately 70 percent male. This is higher than the share of male attorneys nationwide. And it is much higher than the nearly even distribution of recent law school graduates by gender. But the skew is most apparent when we compare the patent bar to the pool of recent design-related graduates who are about 70 percent female. Should these women become attorneys, they will be prevented from assisting clients prosecuting design patents when they are the ones who are most likely to have the expertise that their clients will desire.

The PTO has a number of relatively inexpensive options that it could adopt to solve this problem. The cheapest and easiest would be to adopt a limited registration for lawyers with backgrounds in various design-related fields to permit them to sit for the patent bar and prosecute design patents. These lawyers would not prosecute utility patents, and the current utility patent bar members could still prosecute design patents. Somewhat more challenging, but significantly better in our view, would be the creation of a separate design patent bar that is distinct from the utility patent bar. Again, all current members of the bar could be grandfathered in to the design patent bar. And new members would have to pass a test based on design-specific prosecution issues. Ideally, eligibility for this design patent bar would be open to any attorney in good standing with a significant amount of coursework in design patent prosecution, while ensuring that attorneys are competent in PTO procedures.

In this article, we briefly explain design patents and their increasing importance as a field of intellectual property. We also detail the PTO's educational eligibility requirements for joining the patent bar. Then we show how these requirements operate like other occupational licenses regimes. Like them, the PTO's rules restrict the supply of service providers and increase the costs of obtaining services. But, we will argue, when applied to design patent prosecution, the PTO's science and engineering requirements produce no meaningful benefits. We conclude by outlining our different proposals for remedying this situation.

**Design Patents and the Patent Bar**

A patent gives its owner the exclusive right to make, use, or sell the invention that it discloses. But when most people (including attorneys) think about patents, they tend to think about only a subset of them—utility patents. Utility patents, as their name implies, cover how something works. Typical examples of utility patents include those covering pharmaceuticals, mechanical devices, and computer components. But while utility patents have historically been the most important kinds of patents, another kind of patent—design patents—are increasingly numerous and massively valuable. (Apple's multimillion-dollar victory against Samsung was based largely on design patent infringement.) Design patents are appropriate for the ornamental design of an article of manufacture. Just as utility patents exist to encourage inventors to develop novel technologies and innovations, design patents exist to provide incentives for new, aesthetically valuable industrial designs. In this sense, they are effectively hybrids between utility patents and copyrights. They allow designers to claim intellectual property rights in aesthetic designs that would typically be excluded from copyright protection by the "useful articles" doctrine.

Unlike copyrights, however, design patents require formal applications, and they are examined by the PTO to determine their validity. This process of application, examination, and amendment is known as "patent prosecution." It continues until the patent is granted or the claimant decides to drop the prosecution.

Design patents only contain a single claim: "The ornamental design for [the article which embodies the design or to which it is applied] as shown." The patent has no in-depth written description; the PTO deems the drawings the best description of the invention. The drawings are not scientific in nature, although various design conventions are used to illustrate the nature of the claim.

While any registered attorney can help an author register a copyright or a firm register a trademark, only certain people are permitted to assist inventors with patent prosecution. To prosecute patent applications, a person must be registered to practice before the PTO. Registration is a two-step process. Applicants must first satisfy the eligibility requirements set forth by the PTO, and then they must pass the patent bar exam. The patent bar exam is directed to patent law and the rules and regulations that govern practice before the PTO.

But to even be able to sit for the patent bar, applicants must meet the PTO's strict educational eligibility criteria that are set forth in a document commonly referred to as the General Requirements Bulletin. In almost all cases, this means that the applicants must have an undergraduate degree in one of 32 enumerated science and engineering fields or be able to demonstrate that they have taken a significant amount of coursework in those fields. Excluded from eligibility are degrees and coursework in art, design, or architecture.

The PTO's eligibility requirements establish a firm limit on people's ability to join the patent bar and prosecute patents. As stated before, a very small number of attorneys (at most 43,000, but more likely about 24,000) have been responsible for prosecuting approximately 3 million patent applications over a five-year period. If an applicant qualifies for the patent bar based on an electrical engineering degree, he can prosecute patents in electrical engineering, of course, but also in biotech, pharmacology, astrophysics, and, even, design. Yet if an applicant has a degree in product or industrial design, she isn't allowed to even prosecute design patents.

It's worth noting that the patent bar exam does not actually test scientific or technical knowledge. Instead, the focus is on patent law and the procedures and rules applicable to prosecution. Further, the PTO does not apply any restrictions to attorneys who prosecute trademarks before the PTO even though there are procedures and rules applicable to trademark prosecution.
The PTO’s Eligibility Rules Are Irrational, Harmful, and Unfair

The PTO’s science and engineering eligibility requirements are an occupational licensing scheme. Sometimes occupational licensing can be valuable, such as when it corrects market failures and protects consumers. In all cases, though, licensing regimes increase the costs of services by limiting competition. The question, then, is whether the benefits of licensing regime in terms of consumer protection exceed the regime’s costs. In our view, applying the science and engineering education requirements to design patent practitioners has virtually no benefit and enormous cost.

These requirements are not needed to address any market failure and are entirely unrelated to the skills that the PTO itself recognizes as potentially important to design patent prosecution. Furthermore, they increase the costs of obtaining and challenging design patents, and the higher fees disproportionately go to men, while women are excluded from the system. These costs are far too great when weighed against any plausible benefits that the occupational licensing could generate.

The PTO’s eligibility requirements appear to have been issued in response to concerns related to the complicated, technical nature of utility patent applications, and one can understand the reasoning behind them. Although an electrical engineer may do a better job of drafting and prosecuting a utility patent on a transistor, it’s implausible that an electrical engineer will draft better patent applications for the shape of sneakers or smartphones than someone who studied industrial design. Also, unlike utility patents, design patent applications are more straightforward. Design patents only include a single claim along with several drawings of the article. Strategies that may be associated with design patent claiming are often comprehensible to lay people and are no more difficult than the sorts of things attorneys do in many other legal fields in which no license based on specialized knowledge is required.

There is little reason to think that inventors and designers require strict occupational licensing of their patent attorneys in order to avoid getting duped into purchasing low-quality services. Today, patent prosecution is a well-established practice area, and the clients who need these services are generally sophisticated, repeat players. To the extent that law firms and corporations believe patent prosecutors should have technical credentials, they can insist upon their prosecuting attorneys possessing them and, once hired, assign them to applications that are directly related to their technical background.

Moreover, attorneys’ ethical obligations are likely to deter inappropriate behavior without having to resort to occupational licensing. Attorneys in every state are bound by a code of professional responsibility, including canons of ethics that require lawyers to competently represent their clients (i.e., only taking on matters in practice areas for which one has the skills to provide quality legal services).

Low-quality design patent prosecution is also unlikely to generate sufficient social costs that are curable by occupational licensing. While low-quality design patents are certainly costly to society, we might hope that applicants’ preferences for high-quality design patents will generally overlap with society’s interest in high-quality design patents. But even if they do not, the attorneys aren’t giving the clients low-quality legal services the way that a quack physician might mistreat a communicable disease. Instead, clients could be seeking out high-quality attorneys to help them draft low-quality patents. Although this practice certainly produces costs for society, these costs are not ones that arise from low-quality practitioners.

Importantly, even if there were a sizable market failure associated with low-quality design patent prosecutors, we must consider whether the PTO’s eligibility rules are a cost-justified response. We need do nothing more than state the situation for its irrationality to be apparent. People who majored in biology, chemistry, and civil engineering are permitted to prosecute design patents, but people who majored in industrial, product, or fashion design are not. This makes no sense. And because the patent bar exam primarily tests procedural rules about practice before the PTO, that knowledge, and its application to design, is just as understandable to those who studied science or engineering.

Ultimately, the most damning evidence of the irrationality of the PTO’s patent eligibility rules is that the PTO itself does not apply them internally. When the PTO hires design patent examiners, it does not seek applicants with science and engineering backgrounds; instead, it looks for those who understand designs (i.e., “individuals with degrees or education in industrial/product design, architecture, applied arts, graphic design, fine/studio arts”). When they interview, the PTO asks design patent examiner applicants questions about visual similarities between different designs. It is clear, then, that the PTO believes that science and engineering qualifications are not essential to design patent prosecution and examination.

These rules aren’t just irrational. They’re also extremely costly for society and the patent system. Like other occupational licensing restrictions, the PTO’s eligibility rules limit the supply of patent agents and attorneys who are eligible to assist applicants. The inventors of each of the thousands of design patents need to hire attorneys to assist with prosecution. But those inventors are compelled to choose from a tightly limited group. Because the PTO’s rules artificially restrict the supply of design patent attorneys, they substantially increase the costs of filing for design patents. And these increased costs will be especially difficult for small and independent inventors to bear. This means that design innovation could be curtailed by unnecessary legal rules.

In addition, the PTO’s eligibility rules don’t just raise costs for applicants; they also increase the costs for parties interested in challenging bad design patents before the Patent Trial and Appeal Board because a member of the patent bar is needed to do so. These proceedings are vastly cheaper than full-scale district court litigation, so they increase the possibility of getting rid of bad patents. Challengers may be even more sensitive to small differences in price because they can only cancel one or more claims of an existing patent not obtain affirmative exclusive rights to make and sell.

Finally, but quite significantly, the people benefited by the eligibility rules are disproportionately men. A 2014 estimate by Saurabh Vishnubhatk et al. indicated that the patent bar is currently about 70 percent men. Although a number of reasons for this skew are possible, one of the strongest possibilities is that the PTO’s eligibility rules prevent more women than men from practicing patent law.

Science and engineering fields are notoriously skewed toward men in colleges and universities. By contrast, women make up the vast majority of students at leading industrial and fashion design schools (about 70 percent). And the national pool of recent law school graduates is split evenly by gender. Accordingly, the patent bar is drawing attorneys from a highly distorted pipeline of talent. If the PTO allowed either design majors or people with any undergraduate major to prosecute design patents, the number of women who were eligible patent attorneys would be sure to rise.
Fixing the Design Patent Bar

Solving the issues of the design patent bar won’t be costless, but as legal problems go, this one is a pretty cheap fix. Here we offer a pair of options that the PTO could adopt that would remedy the situation.

Create a Separate Limited Registration for Design Patent Prosecution

The PTO has created “limited registrations” for patent prosecution in the past. For example, law students working in clinics can obtain a limited registration to practice before the PTO. We suggest that the PTO create a limited registration for some attorneys to engage in design patent prosecution. The limited registration could be open to attorneys in good standing who then pass the current patent bar exam.

The principle question is who would be eligible for the limited registration. One possibility is to open it up to lawyers who have studied one of the fields that the PTO considers relevant for design patent examiner positions. This could include undergraduate degrees in industrial design, fashion design, architecture, applied art, and visual art. Alternatively, the limited registration for design prosecution could be open to all attorneys regardless of undergraduate field. In either case, all current members of the patent bar who would continue to be able to practice design patent prosecution, and any new lawyers who meet the PTO’s other educational criteria would be eligible, as well.

This approach is the cheapest for the PTO to implement. All it would have to do is certify that applicants meet the new, expanded educational criteria. Applicants would then pay the necessary dues and take the patent exam in order to be admitted to practice design patent prosecution.

Create a Separate Design Patent Bar

Alternatively, the PTO could establish a separate bar for design patent prosecution with its own examination. The chief merit of this approach is that it would enable the PTO to test knowledge of examination rules and design conventions that are unique to design patents. The current bar exam hardly tests design patent prosecution. The limited registration to practice before the PTO. We suggest that the PTO create a limited registration for some attorneys to engage in design patent prosecution. The limited registration could be open to attorneys in good standing who then pass the current patent bar exam.

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Again, the central questions involve membership. And again, the PTO could simply expand the list of eligible fields for the design patent bar, adding design-related fields to the current list of science and engineering fields. Doing so would isolate the attorneys who are most likely to have particular expertise related to design. Instead, the design patent bar could be open to any attorney in good standing. This is the approach that we favor.

Although prosecuting design patents has certain unique idiosyncrasies that lawyers must master, we do not believe that these are so challenging that they require substantial undergraduate training. Understanding drafting conventions or the relationship between form and function in a design are essential skills for a design patent attorney, but like many other skills, they can be learned. And by opening up the field to the widest number of attorneys, we can most thoroughly lower the costs of accessing the patent system.

The approach we favor is a hybrid of the PTO’s current regimes for patents and trademarks. Like patent prosecution, the new design patent bar would require an examination on rules and practices. But like the trademark bar, the design patent bar would be open to any attorney.

As with other sorts of occupational licensing, the question here is whether the benefits of eradicating the PTO’s eligibility requirements for design patent prosecution would exceed its costs. The goal is to find the cheapest means of maintaining patent quality. We believe that this approach is likely to offer the best option, largely because it maximizes the size of the pool of design patent prosecutors without seriously risking design or utility patent quality. The patent bar can remain to make sure that practitioners understand the rules, and clients will be able to engage in appropriate sorting to hire the prosecutors that they desire. As a practical matter, there should be no concern about a negative impact on patent quality if the PTO’s eligibility requirements were eliminated because, as we explained above, law firms and their clients are generally well-positioned to screen for the credentials they deem appropriate.

Conclusion

Design patents are an increasingly important part of the intellectual property landscape, and the PTO needs to treat them as such. This means, in part, making sure that inventors have access to a robust pool of qualified attorneys to help them prosecute design patents. The PTO’s current educational eligibility rules prevent this, but low-cost solutions are available. We hope the PTO will adopt some means of remedying the current irrational, costly, and biased system.

Endnotes

1 35 U.S.C. § 271(a) (“whoever without authority, makes, uses, offers to sell, or sells any patented invention … infringes the patent”).
2 35 U.S.C. § 171(a) (“Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor…”).
6 Id. at 4-8.
7 Id.
8 Id.
9 Id. at 18-19.
10 Becoming a Trademark Practitioner, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/learning-and-resources/patent-and-

2Id.


6Id.


9Id.

10See United States v. Trofimoff, No. 8:00-cr-197-T-24EAJ (M.D. Fla. filed June 14, 2000).


12Id.


15See United States v. Thaddeus M.S. Bereday, 752 F.3d 1259, 1266 (11th Cir. 2014) (“In sum, Behren was convicted of Counts 4 and 5…, in violation of 18 U.S.C. §§ 1035 and 2; Behrens, Farha, and Kale were convicted of Counts 8 and 9…, in violation of 18 U.S.C. §§ 1347 and 2; and Clay was convicted of Counts 10 and 11…, in violation of 18 U.S.C. § 1001.”).

16Id.


18See United States v. Clay, 832 F.3d 1259, 1266 (11th Cir. 2016) (“In sum, Behren was convicted of Counts 4 and 5…, in violation of 18 U.S.C. §§ 1035 and 2; Behrens, Farha, and Kale were convicted of Counts 8 and 9…, in violation of 18 U.S.C. §§ 1347 and 2; and Clay was convicted of Counts 10 and 11…, in violation of 18 U.S.C. § 1001.”).

19Id. at 1265.