Despite the rapid profusion of new branded and proprietary diamond cuts in recent years, considerable confusion exists in the trade about the important differences between trademarks and patents. Proprietary brand names can be protected by trademark registration (typically noted by a registration [®] symbol next to the brand name), while proprietary designs or products can be protected by patents. Both methods have important limitations, and the recent history of cut designs reflects the importance of protecting a valuable diamond cut. A study of the proprietary designs currently in the marketplace revealed a preference for trademark protection over patents, though many designs appeared to have no patent or trademark registration. A list of recent proprietary designs is given in the Appendix.

LEGAL PROTECTION FOR DIAMOND CUT DESIGN IN THE UNITED STATES

At the outset, any treatment of the subject must recognize that “branding” tends to mean different things to different people (see Even-Zohar, 2002). Thus, a distinction needs to be made between protecting a diamond cut design and merely protecting the brand name for it. Unfortunately, whether in spite of, or because of, the recent proliferation of new designs, considerable confusion exists in the diamond trade about the differences between patents and trademarks (registered and unregistered)—assuming the subject receives any attention at all. At GIA’s Third International Gemological Symposium in 1999, panel discussions addressed both Diamond Cut and Branding; yet the reports of these discussions made no mention of the issue of intellectual property protection (Even-Zohar, 1999; Sielaff, 1999). The trade press often complicates matters by using
the terms patent and trademark incorrectly or interchangeably. One article on diamond branding, for example, asserts that “Trademarking . . . involves patenting of an idea” (Scriven, 1997), which is incorrect on at least three different levels (one can neither patent nor trademark a mere idea).

Confusion in this area is understandable, given the fact that “intellectual property” is actually a legal fiction; that is, it is “property” that exists only because rights to certain forms of human expression have evolved from centuries of case history or have been specifically created by statute. As such, they differ fundamentally from traditional property rights derived from possession of a piece of land or a physical object. Very generally, “intellectual property” means a set of rights, derived from statute and/or case law, that delineate the usage and ownership of specific, well-defined expression created by human intellect. Patents and trademarks are both forms of intellectual property.

For a diamond manufacturer seeking to protect a new cut design, as well as for a jeweler or gemologist seeking to make sense of the plethora of new products on the market, the distinctions between trademark and patent are important and should not be glossed over, as their respective intent, scope, duration, and durability differ in many significant ways. This discussion focuses initially on United States law; international law is addressed in the next section.

**Trademarks.** A trademark is a word, phrase, logo, or other graphic design intended to identify the source of a product or service in a specific industry. The origins of the basic concept are lost in antiquity, but the idea of a formal government registration scheme did not evolve until the 19th century. Federal trademark registration in the U.S. was first established by the Trade-Mark Act of 1881. The Act has been revised repeatedly since then, and trademark registration in the U.S. is currently governed by Title 15, Sections 1051–1129, of the United States Code (information in this section is drawn from there unless otherwise noted).

In the U.S., trademarks may be registered with the U.S. Patent and Trademark Office (USPTO), but need not be. Continued and consistent use is enough to establish a mark in the marketplace. Gems & Gemology, for example, has been the name used by GIA to identify this journal since 1934, but it has only been a registered trademark since 1999.

Unregistered, or “common law,” marks can display a trademark symbol (™) but not a registration symbol (®). (See Title 15, Section 1111; note, however, that certain state and local laws may govern the use of the ™ symbol as well.) Ownership of a mark is not dependent on registration; rather, it depends on the use of the mark in commerce. However, registration conveys a number of important benefits, among them a legal presumption of ownership, distinctiveness, and trade usage that any opposing party would have to overcome with competent evidence should the trademark owner ever need to sue for unauthorized usage or other infringement of the mark.

The assistance of an attorney is not required to secure a federal trademark registration, though it can help. Registrations are reviewed by the USPTO to determine if the mark is too descriptive or generic,
or if it conflicts with existing registered marks. However, identical or nearly identical trademarks can be employed for different purposes if there is no likelihood of confusion. Although the minutiae of the classification system are beyond the scope of this article, trademarks are grouped into different classes depending on their intended use (see Code of Federal Regulations Title 37, Section 6.1, for full definitions of the current classes). For example, the term CrissCut is a registered trademark [class 14; the class for most sorts of jewelry and related items] for the patented diamond design created by Christopher Slowinski (Slowinski, 1997). The same term, however, has also been trademarked [class 29] by Lamb-Weston Inc., for a particular type of French-fried potatoes (Lamb-Weston, 2002). Because there is little danger of confusing the two usages, CrissCut fries and CrissCut diamonds can both exist in the same economy without creating trademark problems. [If you want to determine if someone else has registered a trademark you want to use, you can search for it with the USPTO’s Trademark Electronic Search Service [http://tess.uspto.gov].]

Both common law marks and registered marks have important limitations. The rights to both types may be lost or considered abandoned if they are not used or if they are not defended when infringed. The owner of a registered mark also must file periodic affidavits of continued use with the USPTO [on the fifth anniversary after registration and on every subsequent 10-year anniversary thereafter] or the registration will be cancelled.

Further information about registering a trademark can be obtained from the USPTO Web site [http://www.uspto.gov/web/offices/tac/doc/basic].

Patents. A patent is the grant of a right to prevent others from making, using, selling, or importing an invention for a set period of time, which varies depending on the type of patent [information in this section is drawn from Title 35, Sections 100–376, of the United States Code unless otherwise noted]. Unlike trademarks, which existed (and still exist) at common law, patents are solely a creation of statute. They exist only when they are issued by the USPTO.

A patent may be obtained for any “new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof . . . ” [Title 35, Section 101]. The invention need not be a physical object; in fact, the very first U.S. patent, issued in 1790, was for a method of making potash, a common component of agricultural fertilizers [Hopkins, 1790]. However, the invention must be new [i.e., not something previously invented], “non-obvious” [meaning a genuine innovation], useful, and original to the inventor making the application [Title 35, Sections 101–103].

Patent prosecution [the legal term for securing a patent] can be an arduous process. The services of an experienced patent attorney are usually required, as poorly prepared applications can significantly limit the scope of a patent [if they are not rejected outright]. The application must pass a review by USPTO examiners, and multiple revisions are typically necessary before the patent issues. The delay between filing and issue is normally several years, and can extend a decade or longer if competing inventors contest the application. An invention can be referred to as “patent pending” during the period between filing and issue. For utility patents [discussed below], protection is retroactive to the date of filing if the patent ultimately is issued.

A patent is a form of property, which means that it can be sold, licensed, given away, or abandoned like any other sort of personal property. It is important to understand, however, that patent rights are exclusionary; that is, they are rights to exclude others from making use of an invention. Whether the inventor may manufacture or market a particular invention is another matter entirely, one that is subject to other existing laws.

Patents are time-dependent. Any use, sale, or publication of the invention [by anyone, not just the inventor] more than one year prior to application generally will prevent the issue of a patent. If an inventor intends to patent his invention, the application should be made before any disclosure or commercial use is made of it. [It is possible to gain an additional one-year grace period by filing what is known as a “provisional” application, but this is a process fraught with some pitfalls. The complexities of provisional applications—which are many and varied—are matters to be discussed with one’s attorney.]

Unlike a trademark, a patented invention need not be sold, manufactured, or used in any way for the patent to persist. Thus, “protective patents,” in which someone patents a device or process simply to prevent competitors from using it—without any intention of using it him or herself—are permitted. De Beers, for example, has employed protective patents in an attempt to prevent the use of certain treatment and synthesis processes (De Beers Industrial Diamonds et al., 2001a–c; Schmetzer, 2002).
There are two main types of patents, utility and design, each with somewhat different protections (there is also a third type, not relevant here, for plants).

Utility Patents. A utility patent protects the construction of an invention, how it works, or how it is used. As such, the application must provide a carefully detailed and specific description of the nature of the invention and what it does if protection is to be adequate. For diamond cut designs, this means providing precise geometric descriptions of the facet arrangements. As an illustration of just how much detail is required, here is the first sentence of the 13-page utility patent for Tiffany's Lucida cut (Greeff, 2002a):

A cut cornered mixed cut gemstone, comprising a girdle, a crown above said girdle and a pavilion below said girdle, said crown comprising a width and length formed by two pairs of opposing crown sides and four crown corners, each crown side and corner having a length along the girdle, said corner length being substantially less than said side length, said crown also comprising at least two steps, including a first step from the girdle to a crown break, and a second step from the crown break to a table break, said crown break defined by lines parallel with said girdle, said crown also having a substantially flat table, said table having one facet having four sides and four corners defined by lines parallel with said girdle, said pavilion having a bottom and comprising a substantially centrally located culet at the bottom of the pavilion, said pavilion also comprising two pairs of opposing pavilion sides and four pavilion corners defined by eight rib lines extending from the girdle to the culet, wherein each rib line extends in a substantially straight line when viewed from the bottom of the pavilion.

Obviously, such a description can only be prepared by an experienced cutter working in partnership with a qualified patent lawyer.

A utility patent application—and its contents—are confidential for the first 18 months after filing. The inventor may publicize the design before these 18 months are up (though there are few reasons for doing so), but the USPTO will not release any information about it. After 18 months, the USPTO publishes the application for public comment unless the inventor certifies that he or she will not seek to patent the invention outside the U.S. All this means that the details of the invention become public knowledge well before the patent is actually issued.

Figure 2. This is the first page of the published patent application for a 122-facet proprietary diamond design created by Robert J. Wueste (“Inventor”) of Oceanside, California. As “Assignee,” Samuel Aaron Inc. of New York has been assigned rights to the design, should the patent be granted. This application is a follow-up to a “provisional” application, which is discussed in the text. “Publication Classification” lists the patent classes, also discussed in the text. The numbers in parentheses refer to internal USPTO codes for each category of information.

Published applications can be obtained from the USPTO (the easiest method is through the USPTO Patent Full-Text and Full-Page Image Databases at http://www.uspto.gov/patft). A portion of a published application for a diamond cut patent is shown in figure 2.

While the information in a published patent application is not protected (yet), and nothing stops a competitor from using it to his or her advantage, caution is still advised. Should the patent issue, pro-
Protection is retroactive to the date of filing, and the patent holder can then collect a fee from any party that has made use of the invention. These amounts can be substantial in cases where there are long delays between filing and issue [K. Schmetzer, pers. comm., 2002]. In general, a patent ought to be issued [or denied] within three years of application. Should the USPTO’s decision take longer than three years, the term of the patent will be extended for as long as the delay lasts, provided that the inventor has been reasonably diligent in prosecuting the application.

For utility patents applied for after June 8, 1995, protection extends for 20 years from the date the application was filed. For earlier patents, the term is either 20 years from filing or 17 years from the date of issue, whichever is greater.

**Design Patents.** A design patent protects any “new, original and ornamental design for an article of manufacture,” for a period of 14 years from the date of issue (Title 35, Section 171). A design patent protects only the ornamental appearance of the invention and not any of its functional, structural, or utilitarian elements. Design patent applications tend to be fairly simple, as all that is necessary is a comprehensive graphic depiction of the design; detailed descriptions are not required. A portion of the design patent for Tiffany’s Lucida® cut is shown in figure 3 (Greeff, 2002b). In general, it is easier to obtain a design patent than a utility patent, and design patent applications are not published as utility patents are (though the patent itself is, once issued).

Note that, as Tiffany has done for the Lucida cut, it is entirely permissible to apply for and receive two different patents—one for design and one for function—for what is essentially one invention, as long as the design and function are not easily separable. Modern diamond cut patents often exist in tandem: a design patent for the appearance of the finished diamond, and a utility patent for the way it transmits light and creates brilliance.

The interrelationship between patent and trademark is important. One may register trademarks for designs that cannot be patented, and one may secure a patent for one’s design only to see its trademark protection lost (e.g., from failure to defend the name or failure to file the required affidavits) after it is already on the market. The existence of one is no guarantee of obtaining—or retaining—the other.

Like trademarks, patents have classifications. Gemstone design patents are classified as D11/89 and/or D11/90; gemstone utility patents as 63/32 [knowing these classes makes searching for patents in the USPTO database much easier].

Table 1 summarizes some of the more important distinctions between trademarks and the two types of patents for a diamond cut design. Further information on U.S. patent applications can be obtained from the USPTO [http://www.uspto.gov/web/patents/howtopat.htm].

**Other Potential Means of Protection.** “Intellectual property” encompasses not just patent and trademark but also copyright, trade dress, and trade secret. While there have been historical attempts to

<table>
<thead>
<tr>
<th>Trademark</th>
<th>Utility patent</th>
<th>Design patent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protects brand name of cut</td>
<td>Protects how cut transmits light and creates brilliance, fire, and scintillation</td>
<td>Protects ornamental appearance of cut</td>
</tr>
<tr>
<td>Same name can be used in different industries</td>
<td>Exclusive to patent holder</td>
<td>Exclusive to patent holder</td>
</tr>
<tr>
<td>Name need not be registered if used in commerce</td>
<td>Patent must be filed for and issued by USPTO</td>
<td>Patent must be filed for and issued by USPTO</td>
</tr>
<tr>
<td>Name can be registered long after first use</td>
<td>Patent application must be filed within one year of first use or public disclosure of cut design</td>
<td>Patent application must be filed within one year of first use or public disclosure of cut design</td>
</tr>
<tr>
<td>Name must be used in commerce after registration</td>
<td>Design need not be used, sold, or manufactured</td>
<td>Design need not be used, sold, or manufactured</td>
</tr>
<tr>
<td>Duration indefinite if affidavits of continued use are timely filed</td>
<td>20 year duration from date of filing (or 17 years from issue for patents applied for prior to June 8, 1995, if this is longer)</td>
<td>14 year duration from date of issue</td>
</tr>
<tr>
<td>Class 14</td>
<td>Class 63/32</td>
<td>Classes D11/89 and/or D11/90</td>
</tr>
</tbody>
</table>

*Source: Code of Federal Regulations Title 37; U.S. Code Titles 15 and 35.*
use these other methods to protect diamond and
ejewelry designs, in general they have not been very
effective (R. Shor, pers. comm., 2002). Copyright
protects “original works of authorship” including
“sculptural works” (Title 17, Section 102). While
one can argue that a diamond cut is a “sculptural
work,” a certain minimum amount of creative
expression is required. Without going into too much
detail, the U.S. federal courts have required more
original artistic expression than exists in a diamond
cut design, though not in a piece of jewelry (see
Hazard, 2001, pp. 2-7 to 2-10, for a general dis-
cussion of this issue).

Trade dress is a form of unfair competition law.
It protects the total, overall impression created by a
product or its packaging, that is, the size, shape,
color, texture, or graphics—at the most basic level,
the “look” and image of a product or its packaging
in the consumer’s mind (Jassin and Schechter,
2000). Trade dress can be registered with the
USPTO as trademarks are, as long as it is nonfunc-
tional and the product has acquired a secondary
meaning. A line of jewelry and its packaging, such
as Tiffany’s famous blue box, might constitute pro-
tectable trade dress, though there are examples,
such as designer David Yurman’s attempts to pro-
tect his cable-themed designs, where the courts
have rejected such claims (Donahue, 2001;
Kekahbah, 2000). A diamond cut alone, however,
does not qualify as trade dress.

Trade secret is, straightforwardly enough, the
means by which one protects internal, proprietary
trade knowledge. If the creation of a proprietary dia-
mond design requires an original, specialized manu-
facturing process, that process could be considered
a trade secret. The process must, however, remain
secret. If it can be readily ascertained through legal
means by persons who can obtain economic value
from it, it is not protectable as a trade secret (see
Uniform Trade Secrets Act, Section 1[4]). A diamond
cut design, given that its facet arrangement is obvi-
ous to any trained observer, would not qualify as a
trade secret.

INTERNATIONAL PROTECTION OF
DIAMOND CUT DESIGN
The discussion thus far has focused on United
States law, but in an industry as global as the dia-
mond trade, manufacturers must also be aware of
laws in other countries. A full discussion of the
complexities of international patent and trademark
conventions is beyond the scope of this article, but
some important elements can be noted.

There is currently no single “international”
patent or trademark registration that would be valid
throughout the world. One must still secure protec-
tion in each country where it is desired, but an
increasing number of methods are available to sim-
plify this process. An international, non-governmental
agency known as the World Intellectual Property
Organization (WIPO), headquartered in Geneva,
administers a body of treaties designed to harmonize
international treatment and protection of intellectu-
al property. About 90% of the world’s countries are
members of WIPO (a full list can be found at
http://www.wipo.int/members/members). This har-
monizing process is a dynamic and ongoing one, and
the ultimate goal of uniform treatment for patents
and trademarks is still some distance off (WIPO,
2001). However, the so-called Madrid Protocol on
the international registration of trademarks and the
Patent Cooperation Treaty (PCT), both of which are
discussed below, offer some hope for a more orga-
nized future.

Trademarks. As noted above, trademark protection
typically ends at a country’s borders, and a U.S.
trademark owner must file individual registrations
in all countries where protection is desired (except
within the European Union [EU], as discussed
below). Not all countries have trademark registra-
tion schemes but, in general, filing for registration in
a WIPO member country will relate back to the U.S.
filing date provided it occurs within six months of
the U.S. filing (Paris Convention, 1979). With some
luck, this frustrating situation may soon be seeing
its last days.

The Madrid Protocol is the latest installment in a
process that began in 1891; it attempts to set up a
unified international system for registration of trade-
marks (Prah, 2002, WIPO, 2002b). WIPO has been
working hard to advance worldwide acceptance of
this protocol, but thus far only 56 countries are mem-
bers. The U.S. is a notable non-member, though, as of
late 2002, ratification was pending before the U.S.
Senate (and is expected by most observers). The
Madrid Protocol does have some important differ-
ences from U.S. law; among them are the absence of
a requirement of initial use and a narrower definition
of what constitutes similarity for conflicting trade-
marks. Further information can be obtained from the
WIPO [http://www.wipo.int/madrid/en].

Nearly all of the European nations are party to
the Madrid Protocol, but registration throughout the EU can also be accomplished by a single trademark filing known as a Community Trademark (CTM). The CTM is a specially designed registration that exists separately from individual country trademarks, and it creates rights that cover all 15 EU nations. Further information on the CTM can be obtained from the Office for Harmonization in the Internal Market (Trademarks and Designs), known as OHIM, at http://oami.eu.int/en.

Utility Patents. A diamond manufacturer cannot, yet, secure a utility patent through the WIPO, but it is possible to begin the application process in multiple countries by filing a Patent Cooperation Treaty (PCT) application with the USPTO, a foreign patent office, or the WIPO (WIPO, 2002a). Once the application is filed, the manufacturer has up to 30 months to proceed with local patent prosecution in the countries selected on the application. This is a significant benefit because, among other reasons, a critical difference exists between U.S. and Japanese and European patent law. In the United States, patents are issued to the first inventor. If two inventors claim the same invention, the USPTO will examine the relevant evidence (notes, data, correspondence, publications, etc.) to determine who first created the invention. In Japan and Europe, however, there exists what is often called “a race to the patent office”: Whoever files first will normally get the patent, regardless of the date of invention.

Like the Madrid Protocol, a PCT application can avoid a lot of problems with inventions intended for an international market (such as a diamond cut), but the process has its own unique procedures and requirements, some of which vary depending on the countries selected. Nearly all major world countries are PCT-participating states [Namibia, Botswana, and Thailand are important exceptions for the gem trade]. Further information on PCT applications can be obtained from WIPO [http://www.wipo.int/pct/en], the USPTO [http://www.uspto.gov/web/offices/pac/dapps/pct], and the European Patent Office [http://www.european-patent-office.org/ap_gd/part_2/index_pdf_e.htm].

In addition to what is available through the PCT, most of Europe has had a uniform utility patent system under the auspices of the European Patent Office (EPO) since 1977 [Norway and Poland are the main exceptions]. Like Community Trademarks, an EPO patent does not replace national patents; the same invention can have both an EPO patent and patents from, say, Germany and France.

Design Patents. First, it is important to realize that design patents tend to get different treatment—sometimes very different treatment—outside the United States than they do inside. Among other things, there is no international design patent scheme comparable to the PCT, though there are some regional processes.

In the EU, the protection scheme for industrial designs resembles U.S. copyright rules almost as much as it does U.S. patent rules (see Spencer, 2002). Under a regime adopted in 2002, even unregistered designs are automatically protected for a term of three years after the design is first made available to the public. Beginning in January 2003, registered designs are protected for five years, with protection renewable in five-year increments up to 25 years. While this is 11 years longer than the term of a U.S. design patent, the protection is not quite as strong. For example, a very important difference exists in what constitutes infringement: Unlike U.S. patent law [but similar to “fair use” provisions in U.S. copyright law; see Title 17, Section 107], a registered Community Design is not protected from private, noncommercial use or reasonable educational use.

As with CTMs and EPO patents, a Community
Design is a community-wide patent, and can co-exist with a national design patent. Further information can be obtained from the OHIM, which administers Community Designs in addition to Community Trademarks.

A BRIEF HISTORY OF PATENTED DIAMOND CUTS

The general evolution of modern diamond cuts is covered exhaustively in Bruton (1970) and Tillander (1995), among many other authorities, and need not be repeated here. Unfortunately, these references, while otherwise authoritative, typically pay little or no attention to the issue of intellectual property protection.

The very first U.S. patent for a gemstone design was issued to J. G. C. Cottier of New York City on July 22, 1890, for a rather odd triangular cut (figure 4). One must wonder at the sort of jewelry setting for which this design might have been intended.

The next few years would see the issuance of a small flurry of cut patents. The year 1902 saw three patents, the first to David C. Townsend, also of New York City (figure 5, top), and the second and third to Ernest Schenck, a Belgian cutter living in New Jersey (figure 5, bottom), for cuts that bear a strong resemblance to the Jubilee cut (figure 5, inset), named in honor of the 60th anniversary of British Queen Victoria’s coronation in 1897, her Diamond Jubilee (Schenck, 1902a,b; Townsend, 1902; Tillander, 1995). History does not record the motivations behind Townsend’s or Schenck’s respective designs, but there are likely some parallels between these two cuts and the recent proliferation of designs for modified round brilliants.

Perhaps the first diamond manufacturer to conceive the idea of associating a diamond cut with a specific manufacturer was master cutter Joseph Asscher, who was well known around the turn of the 20th century for having cut the Cullinan diamond, the largest rough diamond in history (Bruton, 1970). Asscher secured a patent for his step-cut square, which became known as the Asscher cut, in 1902. The Asscher cut was recently updated by the Royal Asscher Co. of Amsterdam. The new cut has been patented and trademarked as the Royal Asscher cut (again, see figure 1).

Many other recent designs can likewise find antecedents in earlier patents. A 1903 cut patented by three members of the famous Tolkowsky family is a strikingly modern hexagonal design (figure 6, left) that would be right at home alongside cuts created by their descendant Gabi (figure 6, top). A 1941 patent for a step-cut rectangle with a cross-shaped pavilion (figure 7, left), also issued to Ernest Schenck,
has elements that are similar to Basil Watermeyer’s Barion cuts of the 1970s (figure 7, right; Schenck, 1941; Watermeyer, 1974).

Other cut elements that are now ubiquitous were once protected by patent. The polished girdle was the subject of yet another patent by Ernest Schenck in 1906 (figure 8), while the faceted girdle (see figure 9) was patented in 1944 by Edward Goldstein of Brookline, Massachusetts. All of these patents, lest the reader now be gripped by concerns of patent infringement, have long since expired.

Although these early patents are of some historical interest, for the most part they were aberrations. Of the approximately 300 U.S. patents (design and utility) ever issued for gem cut designs, all but a handful have been issued since 1975. Until that time, patenting a cut, even a highly successful one, was unusual. The source of this change in attitudes can be traced in the saga of the two most popular fancy cuts of the 1970s: Leon Finker’s Trillion and Henry Grossbard’s Radiant.

Figure 7. This 1941 design (left), also by Ernest Schenck, has some similarities to Basil Watermeyer’s design for this Barion cut (right), which he patented in 1974.

Figure 6. The FireRose cut (above), created by Gabi Tolkowsky for De Beers, strongly resembles a cut patented by members of the Tolkowsky family (left) almost a century earlier, in 1903. FireRose image © De Beers Group.
Finker introduced his triangular brilliant design (figure 10, left) in the mid-1960s, but he (initially) neither tried to register the name nor apply for a patent, despite the popularity of his cut. About the same time, Grossbard began developing his innovative mixed cut (figure 10, right), but he, unlike Finker, patented his design and registered the brand name before putting it on the market (Grossbard, 1977).

Both manufacturers had profitable designs, but only Grossbard had complete control over his. By the time Finker—perhaps inspired by Grossbard—finally tried to protect his cut in the late 1970s, it had become so popular that consumers and jewelers alike were calling any triangular diamond a “trillion.” Finker got his patent (Finker and Finker, 1978), but he was unable to register the trademark. A federal judge in New York ultimately ruled that the word was too close to “trilliant,” which was then also in common usage (Geolat, 1991; Sielaff, 1991). Finker spent over a decade (and a great deal of money) trying to recapture the name through his advertising, but people throughout the trade continued using the term generically. In 1991, Finker finally conceded defeat (Sielaff, 1991). He registered a new name, “Trielle” (“Trillion Diamond Co. . . .”, 1991), but by this point his patent on the original trillion design had almost expired. Grossbard’s Radiant patent was soon to expire as well, but he had enjoyed almost two decades of a plum position in the market: having both patent and trademark protection for a highly popular design.

Henry Grossbard was certainly not the first person to patent a notable cut design, even in the modern era (see, e.g., Huisman and Huisman, 1966; Polakiewicz, 1973; Watermeyer, 1974), but he is rightly credited with awakening the trade to the importance of protecting one’s rights to a valuable cut. Indeed, there were more cut patents issued in 2002 alone than in all the years before Grossbard patented the Radiant.

THE CURRENT STATUS OF PROPRIETARY CUTS IN THE MARKET

Scope. In late 2002, the author conducted a comprehensive search of the trade literature, USPTO, EPO, and WIPO patent and trademark databases, and the Internet to compile a list of as many proprietary cuts placed on the market in the past three decades
as possible, and to determine their status as patented and/or trademarked property. No distinctions were made for popularity, even though some cuts included in the study are now unlikely to be seen anywhere but in estate pieces. However, branded fancy cuts that have entered the public domain through manufacturer choice (such as the De Beers/Tolkowsky Flower cuts) or the passage of time (as with Grossbard's Radiant and Water-meyer's Barion) were not considered.

The research also did not include every active U.S. gemstone patent, since many more cut patents exist than could be matched to known branded products. Rather, it was limited to cuts that the author was able to confirm have been placed on the market. (Several diamond manufacturers, notably Ambar Diamonds of Los Angeles and M. Fabrikant & Sons of New York, hold half a dozen or more patents for cuts that apparently are not yet being sold [Ambar, 1998a–g, 1999; Freilich, 2000a–d]. Some of these may be protective patents intended to deter unauthorized modifications of an established, patented design such as Ambar’s Quadrillion.)

The research was further restricted to cuts intended for diamonds; patents that described cuts for colored stones or ornamental crystal were not included. In some cases, it was not clear whether the cut was designed for a specific stone, and the inclusion or exclusion thereof reflected the author’s judgment based on the specific language of the patent records or other references describing a cut’s usage as a diamond design.

A total of 81 proprietary cuts were identified. A complete list of the specific cuts, their manufacturers and descriptions, and their individual patent and trademark status, is given in Appendix 1.

**Methods.** Trademark status was based on records returned with the USPTO’s Trademark Electronic Search Service, the WIPO’s Madrid Express Database [http://www.wipo.int/madrid/en], and OHIM’s Community Trade Mark Consultation Service [http://oami.eu.int/search/trademark/la/en_tm_search.cfm]. Patent status was based on records returned from searches of the USPTO’s Patent Full-Text and Full-Page Image Database and the EPO’s esp@cenet search service [http://ep.espacenet.com]. [The WIPO maintains a database of PCT applications [http://ipdl.wipo.int], but it is currently unofficial and for test purposes only.]

Not all cuts reported as patented in reliable literature could be located in the USPTO and EPO databases (for example, Diamco’s Cushette cut is described in a Rapaport Diamond Report piece as being patented [“Cushette Cut,” 2002], but the author could not locate any such records; the application may have been filed under a different name or may simply be pending); such cuts are described as “probable” in the Results below. Some brand names had registrations that have since been cancelled or abandoned; these were counted with the never-registered names, since the legal effect is the same.

**Results.** The research revealed varying attitudes about protecting cut designs. Only a minority of the cuts are known to be protected by both patent and registered trademark (20/81), with four more—all trademarked—probably patented (i.e., reported in the literature as patented, but not appearing in any of the databases). A similar number (25/81) have registered trademarks but no patents, which reflects at least some intent to protect the design (this includes two trademarked cuts for which the patents have expired). Less easy to understand are the nine cuts (plus three probables) that have patents but unregistered trademarks (though such registrations may well be pending). Finally, 20 of the 81 cuts appear to be unprotected by either patent or registered trademark.

**DISCUSSION**

While there does not appear to be a strong trend toward patenting designs [at most, 36 of the 81 cuts had patents, and the actual number is probably lower], the manufacturer names that accompany the patented cuts (e.g., Tiffany, Tolkowsky, Goldberg, Schachter) are significant. Whether these manufacturers are the vanguard of a trend, or the patented status of their cuts simply reflects the greater resources they can bring to protecting a design, is a matter for future attention. It is worth noting, however, that of the 29 cuts for which full patent data could be obtained, a large majority [21/29] have been patented in the last four years, and all but one have been patented in the last 10 years. Patenting a cut may not [yet] be the rule, but the pace of it is clearly accelerating.

A stronger trend toward registering trademarks was apparent, with 49 of the 81 cuts having registered brand names. From this, it is clear that the trade views protection of a brand name as more
important than protection of a cut design. This trend is more significant when the following issue is considered.

Because the intent of this study was to determine the treatment of designs that could be patented, it did not focus on branded versions of the traditional 57/58-facet round brilliant. However, the trend toward branding round brilliants is at least as strong as any trend toward branding new cuts. Modern Jeweler’s most recent annual survey of diamond branding, for example, lists 23 “ideal”-cut brand names alone (see “Who’s who…,” 2002), of which 15 were registered trademarks.

These results are consistent with attitudes reported in the trade literature. Many manufacturers take the position that a trademark alone (even an unregistered one) is enough to establish a cut in the market and protect it from unauthorized duplication (see, e.g., Scriven, 1997; Shor, 1997). The weaker interest in patents reflected in the study is mirrored by frequent trade concerns—which have some validity—that patent protections can be evaded by making minor changes in a duplicated design (R. Shor, pers. comm., 2002). Nor is it difficult to find manufacturers willing to dismiss the idea of intellectual property protection altogether, reasoning that quality of the polished diamond alone is enough to establish a brand in the mind of the consumer (Scriven, 1997).

In the days when the product was more important than the brand name, such attitudes could probably be excused. As diamond branding becomes more and more important, however, protecting one’s brand (by all available methods) evolves from a matter of personal preference to one of survival.

While the value of protecting a hard-earned brand name should be self-evident, design protections should not be dismissed either. It is true that proprietary designs typically occupy a small fraction of the total diamond market (see Even-Zohar, 2002), but any design worth the effort of creation and marketing is a design worth protecting. Indeed, the cut may attract little attention; then again, it may be the next Trillion or Radiant. In the former case, inattention to legal niceties is of little import; in the latter, it could prove very costly indeed.

CONCLUSION
Establishing and protecting branded cuts and cut brand names promises to be one of biggest issues in the diamond trade in the near future. The distinctions between trademark, which protects only the brand name, and patent, which protects the design itself, are important. Though these protections have existed for many years, the history of diamond cut patents reflects only spotty interest until recent decades.

A review of the current market indicates that the registered trademark remains the preferred method of protecting a new proprietary diamond cut, though a smaller, but accelerating, number of manufacturers and retailers are taking the further step of patenting their designs. As the diamond industry grows increasingly competitive in response to changes in the diamond pipeline, and as branding becomes the rule for manufacturers and retailers rather than the exception, the protections afforded by patent and trademark promise to become more attractive in the years to come.

ABOUT THE AUTHOR
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ACKNOWLEDGMENTS
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NOTE: This article is intended for informational purposes only and should not be used as legal advice. Readers desiring more information on these subjects should consult a qualified attorney.
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Patent</th>
<th>® Trademark</th>
<th>Inventor/owner</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baroness</td>
<td>Rectangular modified brilliant</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>&quot;Who's who...&quot;, 2002</td>
</tr>
<tr>
<td>Centillion</td>
<td>100-facet modified round brilliant</td>
<td>Expired</td>
<td>Yes</td>
<td>Jules Polakiewicz, Warsaw</td>
<td>&quot;Branded diamonds,&quot; 2002</td>
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<td>Context Cut</td>
<td>Octahedral modern point</td>
<td>1996</td>
<td>Freiesleben, Antwerp</td>
<td>Freiesleben, 1995; Kammerling et al., 1995</td>
<td>Freiesleben, 1995; Kammerling et al., 1995</td>
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<tr>
<td>Dream Dream</td>
<td>66-76 facet five-pointed star</td>
<td>No</td>
<td>Unknown, Switzerland</td>
<td>Kuwayama, 1993a; Hamis and Hamis, 1996</td>
<td>&quot;Branded diamonds,&quot; 2002; Rothman, 2002</td>
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<tr>
<td>Lion</td>
<td>Modern rose-cut round brilliant</td>
<td>No*</td>
<td>Paul De Maere, Antwerp</td>
<td>&quot;Table-less diamond...&quot;, 2002</td>
<td>&quot;Branded diamonds,&quot; 2002; &quot;Who's who...&quot;, 2002</td>
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<tr>
<td>Name</td>
<td>Description</td>
<td>Patent</td>
<td>® Trademark</td>
<td>Inventor/owner</td>
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<td>Millennial Sunrise</td>
<td>Modified, 7-table oval</td>
<td>No</td>
<td>USA Studs, New York</td>
<td>Drucker, 2000</td>
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<td>Millennium</td>
<td>Modified emerald with faceted table</td>
<td>No</td>
<td>Harrods Diamonds, London</td>
<td>“Modified emerald cut...,” 1998</td>
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<td>New Century</td>
<td>101-facet modified round brilliant</td>
<td>1999</td>
<td>No</td>
<td>Michael Parker, Honolulu</td>
<td>Parker, 1999</td>
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<td>Noble</td>
<td>29-facet step-cut kite</td>
<td>No</td>
<td>Doron Isaak, Beverly Hills</td>
<td>“Who’s who...,” 2002</td>
<td></td>
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<tr>
<td>Octus</td>
<td>56-facet octahedron</td>
<td>2000</td>
<td>Yes</td>
<td>Bunz, Germany</td>
<td>Bunz, 2000</td>
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<td>Petar</td>
<td>Square modified brilliant</td>
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<td>No</td>
<td>Peter’s Jewelry, Ontario, Canada</td>
<td>“Controversy...,” 1989</td>
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<td>Queen of Hearts</td>
<td>Square modified brilliant</td>
<td>1996</td>
<td>Yes</td>
<td>Henry Grossbard</td>
<td>Grossbard, 1996</td>
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<td>Regent</td>
<td>12-sided modified brilliant</td>
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<td>No</td>
<td>Horowitz &amp; Atlas, New York</td>
<td>Weldon, 2002</td>
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<td>Royal Brilliant 82</td>
<td>82-facet modified round brilliant</td>
<td>+</td>
<td>Yes</td>
<td>Royal Brilliant Co.</td>
<td>“Who’s who...,” 1997</td>
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<td>Scottish</td>
<td>Modified round brilliant showing</td>
<td></td>
<td>No</td>
<td>Alison and Roy Murray, Durham, Scotland</td>
<td>“Scottish cut,” 2000</td>
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<tr>
<td>SkyStar</td>
<td>Flower-shaped, four pointed “petals”</td>
<td>1998</td>
<td>No²</td>
<td>Lli Diamonds, Israel</td>
<td>Simon-Tov et al., 1998</td>
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<tr>
<td>Spirit of Flanders</td>
<td>80-facet modified round brilliant</td>
<td></td>
<td>Yes</td>
<td>Diamawaq, Antwerp</td>
<td>“Branded diamonds,” 2002</td>
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<tr>
<td>Spirit Sun</td>
<td>Triangular-facet dual-pavilion round</td>
<td>1997</td>
<td>Yes</td>
<td>Freiesleben, Antwerp</td>
<td>Kammerling et al., 1995; Freiesleben, 1997</td>
</tr>
<tr>
<td>Spring</td>
<td>Rectangular modified brilliant</td>
<td>1997</td>
<td>No</td>
<td>Whiteflash, Houston, Texas</td>
<td>Weldon, 2002</td>
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<td>Zales Diamond</td>
<td>Octagonal modified brilliant</td>
<td>No</td>
<td>Yes</td>
<td>Zale Corp., Irving, Texas</td>
<td>“Branded diamonds,” 2002</td>
</tr>
</tbody>
</table>

*Because this table is limited to designs that could be patented, it does not include branded versions of the traditional 57/58-facet round brilliant. It is also limited to cuts patented since 1970 and to cuts that have not yet entered the public domain (whether through the passage of time or manufacturer choice).

²Years given are the effective date of the patent, if any. A plus sign (+) means the author believes the cut is patented, based on reference(s) listed, but could not confirm that fact by searching U.S. patent records. A blank line means the author believes the cut is not patented, based on patent searches and reference(s) listed, but could not confirm that fact through other research. Patent data are as of October 2002. See References for specific patent numbers.

³Trademark registration data as of October 2002. “Yes” entries include active applications in addition to registrations. Entries marked “no” include expired, cancelled, and abandoned marks in addition to marks never registered.

⁴The trademark held by Sirius is actually “Arctic Fire and Ice Diamonds.” “Fire & Ice” is held by another party.

⁵Manufacturer claims a registration, but USPTO records show it as abandoned.

⁶Manufacturer claims a registration, but no records were returned from USPTO or WIPO databases.

⁷The term is registered by Henry Meyer & Co. as part of a logo but not for a diamond cut.
REFERENCES

Hopkins S. (1790) U.S. patent X1, issued July 31.

1 The reference dates for patents vary because the term of the patent may run from either the filing date or the issue date, depending on when the application was filed.
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