

THE Bulletin

OF Tau Beta Pi

A Publication
for the Collegiate
Chapters

Helpful Hints for Invention Protection

by Jacqueline M. Steady, Esq., *Pennsylvania Zeta '92*

IN THE patent field, there are many legal requirements that an inventor must meet to apply for a patent.

Consultation with a patent attorney should provide a tailored plan for the invention-protection process and help in determining cost effectiveness of pursuing patent protection. This article's intention is to offer some helpful hints for this process and addresses utility patents only, but cannot substitute for consultation with a qualified patent attorney.

In the patent field, there are numerous legal requirements that the inventor must comply with when applying for a patent. Most inventors are focused on novelty and non-obvious requirements when applying for a patent. For instance, the novelty requirements set forth in 35 U.S.C., sections 102(a) and (b), state:

"A person shall be entitled to a patent unless (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, more than one year prior to the date of the application for patent in the U.S."

When you believe that you have invented, for example, the latest widget, you will need to determine if the widget (1) is formed only in your mind, (2) has been reduced to writing and drawings, or (3) has been reduced to an actual working embodiment (prototype). The widget needs to be documented appropriately before the patent application process can begin.

In addition, 35 U.S.C., section 103(a), a non-obvious section, states the following: "(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made."

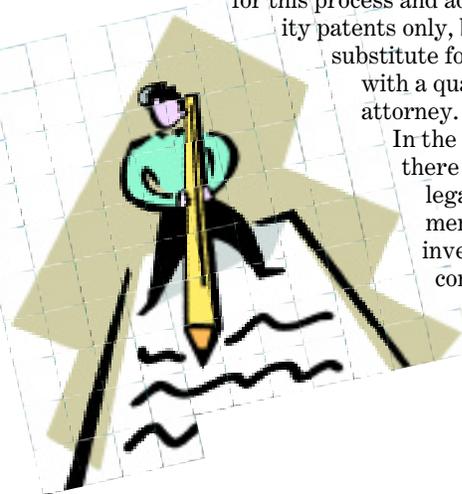
Thus, in view of these requirements and numerous other requirements, including but not limited to additional sections in 35 U.S.C., sections 102 and 103, not quoted above, the text below is provided to give helpful hints in pursuit of patent protection for an invention.

When you believe that you have invented, for example, the latest widget, you will need to determine if the widget (1) is formed only in your mind, (2) has been reduced to writing and drawings, or (3) has been reduced to an actual working embodiment (prototype). The widget needs to be documented appropriately before the patent application process can begin.

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DOCUMENT YOUR WIDGET

Document the widget and its process of creation with descriptive text, drawings, and photos. The text should provide



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a description of every element of the widget. It should read, "A widget with feature 'A' is described below...." Descriptions of this nature are typically recorded in an inventor's journal. I strongly suggest a bound composition notebook. The description should include every function of every element of the widget and every function of every element of the widget in cooperation with the invention of the widget as a whole. The drawings should provide enough views of the widget to show every material feature of the invention. (Photos are included in the documentation but only if a prototype of the widget is available at this point.) This written description of the widget should be properly witnessed and notarized to provide a basis of proof of invention.

The inventor's journal also provides the inventor the beneficial opportunity to review and re-evaluate the widget, so that possible variations and modifications are recorded and their effects—alone or in combination with other features. Another big advantage to keeping an inventor's journal is its role as a tool to reduce patent-attorney fees. Written correspondence with a patent attorney regarding the invention will already be properly documented in the inventor's journal and allow the attorney to review the invention with ease.

A PROTOTYPE PRIOR TO FILING

When the inventor's journal is complete, constructing a prototype should be considered. It is not required for filing a provisional application or a patent application, but a working prototype does provide proof of a functional widget and the opportunity to work out details that may not be self-evident when the invention exists only in the inventor's mind. A working prototype can also prevent filing for the patent with undiscovered flaws in the application descriptions or drawings. It is definitely worth the time it takes for the inventor to make a good prototype.

PROVISIONAL PATENT APPLICATION OR DOCUMENT DISCLOSURE?

A provisional application is not a requirement for filing a patent application, but I recommend it for new inventors. It is filed as a means of protection and corresponding proof of invention prior to filing of a patent application and can provide a temporary shield. The provisional application will have value as



proof of invention only if a corresponding patent application is filed within a year of the provisional application. I suggest filing a provisional application over a document disclosure because the inventor can rely on the provisional application for formal priority. The U.S. Patent and Trademark Office (USPTO) recommends a provisional patent

application over a document disclosure. In the U.S., the first party to prove invention will win a dispute if two identical inventions are both filed in separate patent applications by different inventors.

In the event the inventor does not believe a patent application can be filed within a year, I would not suggest a provisional application. In that case, the inventor can file a document disclosure with the USPTO as a form of proof of conception of invention. The office maintains a document disclosure for only two years and destroys the document disclosure unless the disclosure is mentioned by separate letter in a corresponding patent application within those two years. (Don't forget about the statutes. See section 102(b), for example.)

Other benefits of filing a provisional patent application include: (1) After a provisional application is filed, any prototypes or possible manufacture of the invention can be marked "patent pending." (2) Although a patent application filing is ultimately intended when filing a provisional application, the filing of a provisional application delays the costs associated with patent preparation and patent prosecution in

front of the patent and trademark office. The expense of filing a provisional application could result in protection that ultimately pays for itself. (3) A provisional application is a strong form of proof that, indeed, the inventor had invented the widget prior to actual filing of a patent application. The provisional application should give the inventor added confidence when entering into a nondisclosure agreement prior to filing a patent application. It helps protect the inventor when dealing with others in a marketing context, for example. (You should understand, however, that the provisional application alone cannot be used as a sword against a competitor. Rather, only an issued patent, based on a patent application, and a provisional application, if filed, can be used as a sword.) (4) A resulting shift of the patent term may be advantageous. The provisional application filing maintains priority of invention, a form of reliable proof of invention, without affecting a patent term of an issued U.S. patent.

CONDUCTING A SEARCH

The next thing to consider is conducting a limited search of existing prior art in the public domain of available technology in order to determine if your widget is truly novel and non-obvious. It's not economically feasible for most search companies to search every piece of prior art to determine the state of the art. Generally, a search is undertaken to determine the state of the art and whether pursuing a patent application for the inventor's widget is worthwhile. Improvements in technology are patentable. Searches typically cost a few hundred dollars. Search costs may be more expensive if an opinion is provided regarding the state of the art by a patent attorney. If service fees for preparing and filing a provisional application are too high, you may want to conduct a search prior to filing a provisional application. In any event, be sure to request that the search company enters into a nondisclosure agreement regarding the widget.

While a search of the state of the art is not required for filing a patent application, the long-term benefit of conducting a search prior to filing an application could result in lower patent prosecution fees and therefore a more valuable patent. If searches are conducted prior to application filings, many patent-drafting issues concern-

ing patentability are addressed upon evaluation of search results, rather than during patent prosecution.

A PROFESSIONAL PROTOTYPE

In the event that the inventor wishes to prepare a professional prototype for marketing reasons, it is best to file the widget's provisional application before contacting a prototype-manufacturing company, which will ensure the inventor's proof of invention. A prototype firm should enter into a nondisclosure agreement with the inventor for maintaining the secrecy of the widget. Such an agreement is a routine request. The agreement should include clauses regarding competition and conflicts, among other clauses. The agreement should also contain a clause indicating that the company will not assist in invention of the professional prototype for the widget. This clause may delay production of the widget, but such a safeguard is worthwhile in an effort to preserve proof of invention.

When entering into a written agreement with the prototype company, the inventor should ask many questions about how the prototype could be made—what materials will be used, what colors are available, etc.—before the invention is actually disclosed to the company. If the inventor knows all of this information before entering into an agreement, there should be no surprises (or very few!). If the company makes suggestions or indicates that the widget will not work, find out why. Remember, you know that your prototype of the widget works. Thus, either the company's drawings need adjustment, or the firm is using the wrong materials and/or parts, for example.

Here the inventor would be tempted to benefit from the knowledge of the prototype company by receiving technical information from the prototype manufacturer. Such a receipt of technical information from the prototype company most likely would be construed as entering into a joint inventorship relationship with the prototype company. Most inventors, however, are not interested in sharing profits with a prototype company as a result of any consequential relationship. A prepared inventor and a nondisclosure agreement which addresses assistance of invention should protect the inventor. Consultation with your patent attorney regarding such a non-

disclosure agreement and corresponding issues should alleviate potential problems.

Remember, a professional prototype of the inventor's widget is not a requirement for filing a patent application. Rather, the professional prototype may be beneficial in a marketing context. You never get a second chance to make a first impression.

FILING

When the inventor is ready to file a patent application, a patent attorney typically needs 20-40 hours to prepare and file it. Preparation time of a patent application varies depending on the complexity of the widget. In any event, the inventor must take into account expenses of attorney fees and governmental filing fees. A relatively small number of issued patents actually earn more revenue than the amount of expense invested in the patent process, including research and development. Patent applications that mature into patents have obvious value based on existing market need and possible future market need. Many patents are prepared and filed as protection to compete in the market. Thus, market need and actual potential sales should be evaluated before the above costs are considered.

Jacqueline M. Steady, Pennsylvania Zeta '92, is a licensed patent attorney. After earning her B.S.E.E. with honors in 1992 at Drexel University, Ms. Steady studied law in Harrisburg, PA, and received her J.D. with honors at Widener University's school of law. Her J.D. courses included studies at George Mason University. A member of Eta Kappa Nu and Phi Eta Sigma, she has worked as a patent attorney, patent examiner, and engineer.

Educational Loan Fund

Since 1935, Tau Beta Pi has assisted student members with their financial needs while in school or with payment of their initiation fees through our Student Loan Fund. We are pleased to offer this service for student members in amounts up to \$2,500 per member.

Repayment is required to begin after three years, and a simple interest rate of 6% is charged from the day the loan is received.

Interested students can obtain promissory notes and loan applications from their chapter presidents, the website, or from national Headquarters in Knoxville, TN.

Welcome California !

One new chapter chartered by the 2004 Convention has been installed with the initiation of its charter members this year. California Alpha Beta officially came into being on February 12, 2005, at the University of California, Riverside, with Councillor **Russell W. Pierce** as official installing officer.

This will bring the number of active collegiate chapters of Tau Beta Pi to 229. The story of the installation and the harboring institution will appear in the Spring issue of THE BENT.



President Matt Ohland congratulates Chris G. Mayhew and Dr. Dennis K. Rice in Orlando, FL.

U.S. Civil Service

Members of Tau Beta Pi who plan to apply for a U.S. civil-service position qualify for an entering job classification of GS-7, providing they meet all the other job requirements of the position and the judgment of the department or agency involved.

The U.S. Civil Service Commission stated in a letter dated April 13, 1973, "Membership in a national honorary society meets one of the requirements for entrance at the GS-7 level in numerous professional and technical occupations for which they apply."

"The U.S. Civil Service Commission Professional and Administrative Career Examination" Announcement #429, September 1976, states under experience and educational requirements:

2. For grade GS-7 positions one of the following:

(b) ... or membership in a national honorary scholastic society (other than freshman societies) recognized by the Association of College Honor Societies."

Tau Beta Pi has been a founding member of the Association of College Honor Societies since 1925.

Seeking Distinguished Alumnus

The Distinguished Alumnus Award recognizes members who have demonstrated the ideals of Tau Beta Pi as stated in our Eligibility Code and who have fostered a spirit of liberal culture throughout their lives after their college years. Their personal qualities of excellence and leadership serve as examples so as to influence the professional careers and personal lives of our collegiate members.

Honored alumni have made exceptional efforts to demonstrate our ideals and to foster a spirit of liberal culture locally, nationally, and perhaps internationally. They have demonstrated integrity, breadth of interest, adaptability, and unselfish activity.

Awardees are chosen by a committee of national officers and invited to the Convention to receive a special plaque and to be recognized. A \$2,000 Tau Beta Pi Scholarship will be named in honor of each Distinguished Alumnus.

Any individual member or any

chapter may nominate any alumnus member or members, except a national official, for the award. There is no limit on the number of nominations. The following documentation in **four** sets must be sent to the Executive Director by March 15:

1. A one-page nomination form of biographical information and a summary of the achievements and/or contributions of the nominee exemplifying the objective of the award. (President's Book, C 32-33.)
2. A citation (one-page limit) appropriate for presentation, documenting the nominee's outstanding adherence to the Tau Beta Pi ideal of *fostering a spirit of liberal culture* in our society. It may be written by the nominating party.
3. Two letters of reference from persons (excluding the nominator(s) or sponsoring chapter president) knowledgeable about the nominee's contributions and achievements.



2004 - J.S. Tietjen



2003 - D.D. Reneau and I.M. Jacobs



2002 - L.D. Feisel

2005 Spring Conference Schedule

The District Program provides a vital link between the national organization and individual chapters. Each year the Directors gather students for regional conferences to provide both retiring and new officers opportunities to discuss chapter operations and to socialize. All chapters are urged to elect new officers before their District conference. New and outgoing officers are encouraged to attend.

DISTRICT	LOCATION	DATE
1	Boston, MA	Feb. 19
2	Newark, NJ	Feb. 26
3	Philadelphia, PA	Feb. 12
4	Raleigh, NC	April 2
5	Macon, GA	April 2
6	Mobile, AL	Jan. 29
7	Toledo, OH	April 9
8	Platteville, WI	April 2
9	Manhattan, KS	Feb. 19
10	New Orleans, LA	Feb. 19
11	Minneapolis, MN	April 2
12E	Estes Park, CO	April 2
12W	Pocatello, ID	April 9
13	Lubbock, TX	April 9
14	Seattle, WA	April 9
15	Reno, NV	April 23
16	Santa Barbara, CA	April 2

Web Support for Chapter Advisors

Effective chapters and involved advisors go hand in hand. Rarely will you find one without the other. Taking this to heart, the Executive Council appointed the 2004 Convention *ad hoc* Advisor's Committee, and several recommendations that emerged from this group have been implemented.

- An Advisor's forum has been added to Tau Beta Pi's web Discussion Board to allow advisors to exchange ideas, ask questions, and discuss pertinent topics. As with the other forums, click on any message to read it, but you must register to answer or post new messages. The link to the Discussion Board appears on the navigation bar at www.tbp.org.

- The Advisor's website, launched last winter, has been enhanced with the addition of new materials, including the comprehensive "Role of Advisors" that was prepared by the 2004 Convention Committee. Access this site through the Chapters link on the navigation bar.

2005 Chapter Anniversaries

100th	Colorado Alpha Colorado School of Mines	May 5, 1905
	Colorado Beta University of Colorado at Boulder	June 8, 1905
75th	Pennsylvania Zeta Drexel University	Nov. 24, 1930
25th	Alabama Delta University of Alabama in Huntsville	Jan. 26, 1980

Honor Cords Available

New Tau Beta Pi honor cords, chosen by the 2004 Convention, are now in stock to complement the beautiful graduation stoles. Order your supply in quantities of five or more online from the General Store to obtain a discount price of \$11, down from the normal price of \$15.

Email Security

Tau Beta Pi has been and will continue to be concerned with security within its own applications and with each member's data. Several steps have been taken to tighten that security and further protect the information.

- If you get an email with an attachment from that you did not request, that message is probably bogus because TBPI *does not send unsolicited attachments*. Such an email has been forged along with the email address of . The attachment may contain either some code or a marker that validates the email for spamming purposes.
- If you receive an email from that does contain a virus, the email is most certainly forged. TBPI *uses anti-virus software on our mail server that scans incoming and outgoing mail for viruses*.
- If you receive a notice claiming that something you sent to was infected and is being returned to you, that notice was definitely not sent by . TBPI *does not return infected email or provide notification to the sender of infected email*. The "original" email likely has forged headers and cannot be trusted.

In none of the above cases should you open the suspicious email. Instead, permanently delete it. Most email programs provide a method to permanently delete the email rather than moving the email to the deleted items folder.

In the next issue, I will describe some simple steps that can be taken to improve the security of using the web and email.

— Raymond H. Thompson
Systems Administrator

**IF YOUR EMAIL ADDRESS
has changed recently, please
notify us at tbp@tbp.org**

Nominate 2006-10 Council

Slates of candidates for the next Executive Council of Tau Beta Pi should be submitted by April 1, 2005. The voting will take place at the 2005 Convention in Salt Lake City, UT, and the successful slate will take office at the 2006 Denver Convention and serve through the 2010 Convention.

Tau Beta Pi's Constitution and Bylaws, particularly Const. Article III, Sections 3, 4, and 5, delineate the nominating and electing procedures and the Executive Council's responsibilities.

A slate of five alumnus candidates for Executive Council may be nominated by any chapter or group of chapters. Among them, the nominees should be from different branches of the profession and

should have experience in a variety of functions—management, finance, teaching, business, research, etc. Candidates must agree to serve if elected, but nominees are not required to reside in the same geographic area.

Nominations of Council slates must be sent to Headquarters for publication to all the chapters. If fewer than two slates are nominated by the deadline, additional slates may be nominated at the 2005 Convention in Utah; but if two or more slates are nominated by April 1, nominations will then be closed.

The travel reimbursement policy permits the Society to provide convention on-site expenses, plus prorated travel expenses up to \$3,000 total, for all slates.

Find Speakers or New Advisors with AlumNet

Tau Beta Pi's AlumNet Program was created to pair students with alumni for the sharing of information about jobs and academe. The service has been expanded, and chapters can now use AlumNet to find potential chapter advisors and speakers. More than 100 alumni have already indicated a willingness to serve as an advisor. To get in touch with an alumnus about a certain field, company, institution, or

chapter assistance, simply register online at www.tbp.org. Click on the AlumNet link under "For Members" and follow instructions.

Complete the brief contact request form, and the necessary alumnus-contact information will be sent to you by email from the program coordinator. It is the student's responsibility to follow-up and to make contact with the alumnus.

T-Shirt Design Contest

Designs for a new T-shirt are invited. The winner will be selected at the 2005 Convention in Salt Lake City. The design should include *one or more* of the following:

- the words "Tau Beta Pi"
- the Greek letters
- the Bent symbol, the slanted Bent, or the official logo (below)
- the words "Engineering Honor Society."

Both sides of the shirt may be printed using one or two colors

RULES: If the slanted Bent is used, the words "Tau Beta Pi" must appear nearby. Neither the slanted Bent nor the official logo may be used in combination with Greek letters or the motto symbolization. No design should cause embarrassment to

PRIZE: merchandise and a special first-edition T-shirt.

SUBMISSION: email a JPG to john@tbp.org by June 30.



The Bent symbol



The official logo



The slanted Bent



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Important Deadlines

- **March 1** Scholarship Application
- **March 15** Laureate Nomination and Distinguished Alumnus Nomination
- **March 21** Outstanding Advisor Nomination
- **April 1** Constitutional Ballot Executive Council Nomination
- **May 15** GIG Project Proposal
- **June 1** Convention Bid for 2008
Bylaws Curriculum Appeal

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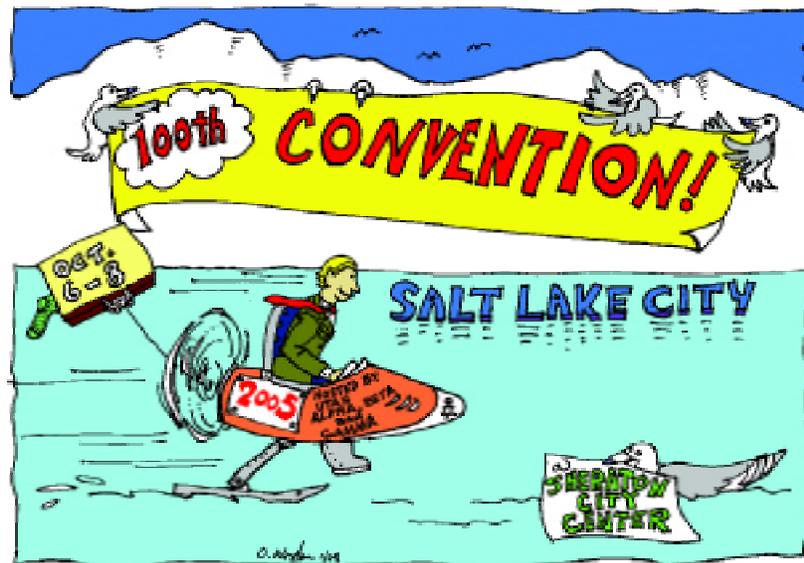
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Benefits of Membership in Tau Beta Pi

These member services may be accessed through www.tbp.org/members:

- AlumNet—online mentoring service.
- AnswerFinancial—find the best rates for many types of insurance through this free quoting service.
- Engineering Futures—sessions on people skills for engineering students.
- Fellowships/Scholarships.
- MonsterTrak—student-oriented job service.
- Student Loans—for educational and initiation-fee assistance.
- The Best People Job Connection—employment service connecting top people with top companies.
- Women for Hire—job fairs and networking for women.