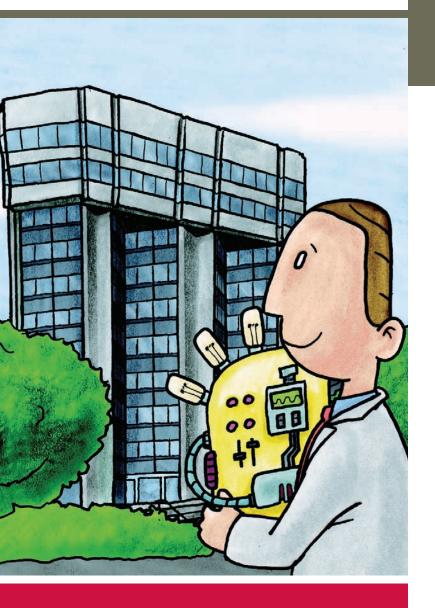
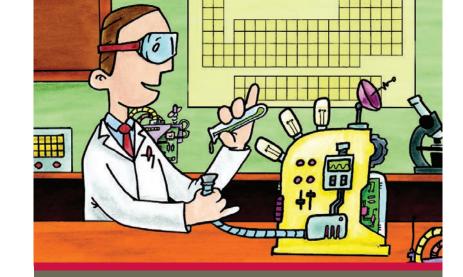


# PATENT **PRIMER**





## Patenting Your Invention

Will your invention qualify for patent protection? The U.S. Patent Act in Title 35 of the U.S. Code contains the federal statutes governing patent law. Following are key terms and concepts.

### • Patentable subject matter and utility (Section 101)

• Any new or useful process, machine, manufacture, composition of matter or new and useful improvements may qualify for patent protection.

### • Requirements for novelty and loss of right (Section 102)

- If the invention is not new in view of the prior art, it does not qualify for a patent.
- If the applicant did not invent the subject matter, a patent will not be issued.

### Requirements for non-obvious subject matter (Section 103)

• If the invention would have been obvious in view of the prior art to a person of ordinary skill in the art at the time the patent application was filed, it does not qualify for patent protection.

### • Written description (Section 112)

• The application must include an adequate description to demonstrate possession of the invention.

### • Enablement (Section 112)

• The application must detail the manner and process of making and using the invention in a full, clear and concise manner to enable a person skilled in the art to make and use the invention.

### • Best mode (Section 112)

• The best mode for carrying out the invention at the time the application is filed also must be included.

### Beware: Prior Art and Public Disclosure

When reviewing your patent application, patent examiners determine if your invention is novel and non-obvious in view of the prior art.

Prior art: Prior art consists of information patented, described in a printed publication, in public use, on sale or otherwise available to the public as of the date you filed your patent application. Prior art includes publications, such as journal articles, presentations, posters or information on a website, as well as information known or used by another.

**Inventor exception to prior art:** In the U.S., an inventor's disclosure of their own work made less than one year prior to the patent filing date will not count as prior art. This is referred to as a grace period for the inventor's own disclosure. If your public disclosure was made more than one year before your patent filing date, it is considered prior art. Caution: Your publications could spur similar or follow-on publications by others. These will count as prior art if they occur before your patent application is filed with the patent office.

International patenting and prior art: In most countries outside the U.S., any public disclosure by anyone—including the inventors—prior to the patent application filing date is considered prior art and can be used to reject a patent application for lack of novelty or obviousness.

Examples of routine academic activities that may be considered public disclosures include:

- Papers
- Presentations
- Open thesis defenses

- Abstracts
  Grant applications
- Department and

- Online publications

### campus seminars

## Filing Date, Prosecution and Maintenance

Effective filing date: The U.S. awards patents to the first-inventor-to-file and the effective filing date is used to determine who is entitled to a patent. The effective filing date is the date an application is filed that fully supports the claims. If two inventors invent the same idea independently and each files a patent application, the inventor with the earlier effective filing date is awarded the patent.

**Prosecution:** Patent prosecution refers to the written exchange between patent applicants and the patent office during the examination process.

Maintenance and term: Most patents expire 20 years from the date of initial filing provided maintenance fees are paid at  $3^{1/2}$ ,  $7^{1/2}$  and  $11^{1/2}$  years from the date of issuance. Design patents based on decorative, non-functional designs receive protection for 14 years.

## Your IP Management Team

WARF's intellectual property management team represents an important resource for University of Wisconsin-Madison inventors, including faculty, staff and students. The intellectual property managers have technical expertise in the fields they support in addition to proficiency in patent law.

WARF advances scientific research at UW-Madison by patenting technologies from the university and licensing the inventions to companies capable of developing them to benefit humankind. Proceeds from these activities are invested in an endowment that supports research at UW-Madison and the Morgridge Institute for Research.

For more information, visit www.warf.org or call (608) 263-2500.

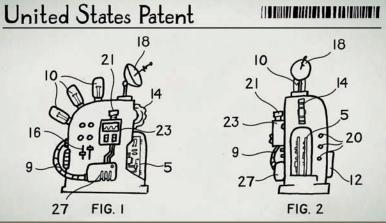






## THE APPLICATION The U.S. Patent Act identifies a number of key elements in an application. Among them:









### A. SPECIFICATION

- The specification includes a written description of the invention that would enable others to make and use it.
- The specification also must identify the best mode for making and using the invention at the time the application is filed.
- Depending on the type of invention, the specification also may need to convey sequence information, references to biological deposits or computer code.

### **B. DRAWINGS/FIGURES**

 Drawings and figures must be furnished when necessary to understand the invention. Drawings and figures are considered part of the invention description (i.e., enabling disclosure and claim scope).

### C. DECLARATION

• Inventors sign a document that states they invented the subject matter. Inventors meeting the requirements as defined by patent law for inventorship are named on the front of a patent. Inventors should be aware of their ongoing duty to disclose all information known to them that is material to patentability.

### D. CLAIM(S)

• The claim(s), independent and dependent, define the scope (metes and bounds) of the patent. A minimum of one claim is required in a non-provisional patent application.

#### We Claim:

- 1. A device for receiving radio signals, the device comprising: an antenna; a sliding switch; a power source; and a signal display.
- 2. The device of claim 1 further comprising: a visual indicator.
- 3. The device of claim 2 wherein said visual indicator is a light that indicates the device status.

### E. ASSIGNMENT

• In the U.S., patent applications and issued patents possess attributes of personal property and an inventor can assign ownership of his or her entire right to another party. The assignment document, signed in the presence of a notary, is recorded with the patent office. The assignee(s) who owns the patent may be named on the face of the patent as applicant and assignee.

## KEY STEPS IN THE PATENT PROCESS

### PATENT PROSECUTION TIMELINE



- 1. Examination: The patent office will assign your application to a patent examiner with experience reviewing similar kinds of inventions. The examiner reviews the claims and searches for prior art and then applies key tests for novelty, non-obviousness and utility. Then the examiner communicates in writing to the patent attorney in an office action.
- 2. First office action: It is common for the examiner to reject some or all of the claims in the first office action. An examiner may find that the claims fail to meet necessary requirements. The office action spells out these issues. Rejections can be made in view of a single reference or a combination of the prior art.
- **3. Response:** If the claims are not allowed, a written response may be filed. The response contains arguments to persuade the examiner that prior art was incorrectly applied and may also amend the claims to further distinguish the invention from the prior art. A reply prompts further examination by the patent examiner.
- **4. Further office actions:** Upon receiving a reply, the examiner will review the claims in light of the arguments and/or amendments. If the examiner is persuaded by the response, a notice of allowance is sent. If not, the examiner issues a final office action. Although a final office action represents a rejection of the claims in an application, it is possible in some instances to further pursue the patent. If no action is taken the application is irrevocably abandoned six months after the date of the final office action.

### 5. Response after final office action:

The applicant can file a response if only minor amendments are needed to satisfy the examiner's concerns. If significant issues remain, a request for continued examination can be filed (with a fee) to further continue prosecution with the examiner. Otherwise the rejections can be appealed to the Patent Trial and Appeal Board. Continuing applications are sometimes filed at this time to pursue claims of different scope.

## 6. Notice of allowance and issue fee due: Congratulations!

The examiner has determined that your claims are allowable and your invention deserves a patent. At this point, the issue and publication fees must be paid. Once these have been received, the patent office will issue the patent. Filing of continuing applications must be made before the issue date of the patent.