

CHAPTER 17

Patents, Trademarks, and Intellectual Property

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Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

—Article I, Section 8, Clause 8 of the United States Constitution

Introduction

Neither patents nor trademarks are typical of government information, at least not in the traditional sense, so it may seem strange to find information about them in a book on government information. One usually places items of government information into one of three categories: information about the government, information for the government, or information created by the government (Open Forum Foundation, 2013). Patents and trademarks are, rather, legal agreements between the public—represented by a governing body—and private interests. The content protected by this legal agreement—the *intellectual property*—is neither *about*, *for*, nor *created by* the government. But patents and trademarks are still, indirectly, government information because they are records of rights acknowledged by the government to those private interests. Plus, surrounding those documents is a vast collection of ancillary information that one could consider *artifacts of doing the business of government*—an oft-overlooked category of government information—such as applications, correspondence, administrative documentation, litigation histories, and bulk data. Approaching this topic more broadly, one must concede that the United States Patent and Trademark Office (USPTO), the patent and trademark-granting authority in the United States, creates and disseminates a lot more information than just the patents and trademarks themselves, and that’s largely what will be explored in this chapter.

What Is A Patent?

A patent is a legal agreement giving its owner *the right to exclude others* from manufacturing, using, marketing, selling, offering for sale, or importing an invention for a specified period of time (its term). A national or regional patent-granting authority issues a patent to an inventor if his invention is novel, useful, and nonobvious, and only in return for full public disclosure of how the invention is made and used.

In the United States there are three types of patents; key differences between them are outlined here and summarized in table 17.1:

- **Utility patents.** These cover novel processes, machines, articles of manufacture, compositions of matter, and new improvements upon any of those. The term of ownership for a utility patent is up to 20 years *from its application date*, so long as the inventor pays periodic maintenance fees. Utility patents are identified by patent numbers (e.g., 8925112). Depending on the search system being employed, this number may be prefixed by a two-letter country code, followed by a document type code, or both (e.g., US8925112 A1). This applies to design and plant patents also.
- **Design patents** cover new, original ornamental designs for articles of manufacture. Strictly speaking, these are rights for what the article looks like, not what it does. As of May 13, 2015, the term for a design patent is 15 years *from its issue date*. Design patents issued prior to that date have a 14-year term, also from date of issue. Design patents are identified by numbers that begin with the letter D (e.g., D720516).
- **Plant patents** cover distinct and new varieties of asexually reproduced plants. The term for a plant patent is 20 years *from its application date*. There are no

TABLE 17.1

Key Differences between Utility, Design, and Plant Patents

	Protects	Term Length (in Years)	Term Begins	Maintenance Fees?	Number Prefix
Utility	Novel processes, machines, articles of manufacture, compositions of matter, and new improvements upon any of those	20	Application date	Yes, every 3.5 years from issue date	None (e.g., 8925112)
Design	New, original ornamental designs for articles of manufacture	14 or 15	Issue date	No	D (e.g., D720516)
Plant	Distinct and new varieties of asexually reproduced plants	20	Application date	No	P (e.g., PP25207)

maintenance fees for plant patents. Plant patents are identified by numbers that begin with the letters PP (e.g., PP25207). Since plant patents are considered by many to be a special type of utility patent, nearly everything in this chapter about utility patents will also apply to plant patents unless otherwise noted.

A patent is a negative right, meaning that the holding of the patent does not by itself grant any right to the inventor to manufacture, use, or sell the claimed invention if that activity would infringe another's blocking patent. For example, let's say that Fred holds the patent for a special type of adhesive, and let's say that Sally has just been granted a patent for a novel method of bookbinding. Sally's method of bookbinding relies on Fred's adhesive. Sally can prohibit others from using her new book binding method, but, because Fred's adhesive patent is a blocking patent, she can't practice it herself without Fred's approval. She would need to either wait for Fred's patent to expire, or come to an agreement with Fred that allows her to use the adhesive.

What Is a Trademark?

A trademark is a word, phrase, logo or other graphic symbol, sound, scent, shape, or trade dress used by a manufacturer or seller to distinguish its products or services from those of its competitors. The main purpose of a trademark is to designate the source of the goods or services that the mark is applied to. A trademark registration certificate is a document issued by a trademark-granting authority conferring the right to use the mark and to prohibit others from using the mark or other confusingly similar marks.

Unlike patents, ownership of a trademark right is established upon its first use in commerce, even if it is not registered. In fact, registration of a trademark isn't required for ownership of the mark, and will not be allowed until the mark is actively being used in commerce. While unregistered trademarks are still protected by law, federal registration confers additional legal benefits for an owner trying to defend their trademark against infringement.

Federal Registration of Trademarks

Federal registration confers additional legal benefits for an owner trying to defend their trademark against infringement. These include the presumption that the registrant on file is the mark's owner; presumption that later users infringed; right to sue in federal court; and recovery of profits, damages, and costs in infringement suits with possible triple damages and attorney's fees if the infringement is found to be willful.

Types of Patent and Trademark Information

There is a wide variety of patent- and trademark-related information available to the public. Most obvious are the documents themselves; in the case of patents these would include grants (issued patents) and *published* applications. In the case of trademarks, these would include registration certificates and *published* applications. The word published

is emphasized for a reason. There's always some lag time in processing an application before it can be published, but there are some scenarios where a pending application is either not going to be published, or it just hasn't been published yet; some of these scenarios will become apparent later in the chapter.

Along with each application there are sets of ancillary files, often called file wrappers. These include copies of all the documents submitted by the applicant to the patent- or trademark-granting authority, and copies of any correspondence between the authority and the applicant or the applicant's legal counsel. For applications filed in multiple jurisdictions, correspondence and related documents shared between multiple granting authorities may also be found.

Then there is the administrative support documentation that is necessary to keep the systems functional. These include things like classification schemas and concordances, examination rules and procedures, and statutory law. Parallel to statutory law, there is also case law and litigation histories that surround infringement suits and a variety of other patent court proceedings.

Lastly, for conducting market research and making important business decisions, having a document in-hand may be less useful than the data that can be gleaned from large numbers of those documents—things like filing dates, inventor names, assignee contact info, legal status, related or cited documents, classification codes or any number of other data fields. This data can be downloaded in bulk for use in spreadsheets and other visualization tools for analysis.

What This Chapter Includes

This chapter includes sources of US patent and trademark information from the categories outlined above. Most patent and trademark information can be located in multiple sources. Most of these are freely available, online US government sources, but there are a few exceptions. For those exceptions, other sources—many of which can be found at Patent and Trademark Resource Centers (PTRCs)—are referenced. Important distinctions will be highlighted between what is available online and what may make a trip to a PTRC worthwhile. A list of PTRCs is maintained by the USPTO at www.uspto.gov/learning-and-resources/support-centers/patent-and-trademark-resource-centers-ptrcs. PTRC librarians are not authorized to provide legal assistance or to help with filing patent or trademark applications, but will bend over backward to help a researcher find the information he needs.

This chapter does not include information aimed at patent or trademark applicants. Guides for filing patent and trademark applications, as well as interactive forms, fee payment information, and legal assistance can all be found on the USPTO's website at www.uspto.gov. This chapter also does not include training materials, either for filing applications or for searching the existing and pending registrations. Step-by-step guides to filing patent and trademark applications are also available on the USPTO's website. Tutorials for searching patents and trademarks abound on the open Web and may be found by a simple keyword search in any search engine; to receive the absolute best help with patent or trademark searching, readers should consult their nearest PTRC.

Patents

Granted Patents and Pending Patent Applications

Inventions that are new, useful, nonobvious to someone skilled in the art and accompanied by a written description disclosing how to make and use the invention may be patented. Prior art constitutes all public information in any form before a given date that might be relevant to a patent's claims of originality. Usually the way to determine whether or not an invention is new and nonobvious is by conducting a prior-art search, which includes a search of granted patents and published patent applications (in addition to non-patent literature). This is good practice not only to avoid infringing others' patents, but also because the inventor will gain a better understanding of the state-of-the-art in her industry, and perhaps discover ways to improve on her own or her competitors' inventions.

As a result of the passage of the American Inventors Protection Act of 1999 (AIPA, Title IV of the Consolidated Fiscal Year 2000 Appropriations, P.L. 106-113, 113 Stat. 1501), utility patent applications filed on or after November 29, 2000, are made available to the public, online, within 18 months of their filing dates. This allows researchers to consult not only granted patents, which may have taken years to issue, but also pending applications, which may better represent the current state of the art. Granted patents and pending applications look nearly identical. The quickest way to tell them apart is by their identification numbers. A granted US utility patent always has a prominently displayed patent number consisting of seven or fewer digits (sometimes prefixed by a country code, e.g., US8925112). For the most part, granted patents are numbered sequentially. Post-AIPA applications, on the other hand, are identified by a prominently displayed 11-digit publication number. The first four digits represent the year the application was published and the remaining seven digits are sequential (also sometimes prefixed by a country code, e.g., US20150095116). Pre-AIPA applications were not assigned publication numbers, but are identified by a prominently displayed 2-digit/6-digit application number (e.g., 09/726688). Note that the publication number does not replace the application number in post AIPA applications; the application number is completely different from both the patent number and the publication number; and it will appear on both the published application and the granted patent. Applications prior to November 29, 2000, are available for granted patents only, but are not online. These are discussed later in the section on file wrappers.

US design patents are not subject to this publication rule because in most countries, design patents are governed by a separate system for registering industrial designs and are not treated as patents. Design patents are not published until their issue date and will only have two numbers, their patent number and their application number.

Defensive Publications and Statutory Invention Registrations

Like a patent application, a defensive publication is a technical specification describing an invention; but rather than seeking patent rights on the invention, the inventor

(19) United States		
(12) Patent Application Publication		(10) Pub. No.: US 2012/0296777 A1
Fugman et al.		(43) Pub. Date: Nov. 22, 2012
(54) DYNAMIC LOCATION-BASED SIGNAGE		Publication Classification
(75) Inventors:	Corey Fugman , San Jose, CA (US); Jason Raskin , Santa Clara, CA (US); David Den Boer , Morgan Hill, CA (US); Joel Levin , Cupertino, CA (US)	(51) Int. Cl. <i>G06Q 30/00</i> (2012.01) <i>G06F 15/16</i> (2006.01)
(73) Assignee:	Apple Inc. , Cupertino, CA (US)	(52) U.S. Cl. 705/27.1; 709/217
(21) Appl. No.:	13/476,756	(57) ABSTRACT
(22) Filed:	May 21, 2012	Dynamic signage systems are provided for a sales environment. A dynamic signage device (e.g., a tablet computer) is associated with a product, e.g., based on a location of the device and/or the product, and can present information about the product to a customer in an interactive manner. The device can automatically check for updated product information and modify its display based on the updated product information. Management of multiple dynamic signage devices can be coordinated within and across stores, and an interactive floor-map creation system incorporating dynamic signage devices can facilitate changing the associations between products and dynamic signage devices.
Related U.S. Application Data		
(60)	Provisional application No. 61/488,696, filed on May 20, 2011.	
(12) United States Patent		(10) Patent No.: US 7,206,256 B1
Thornton et al.		(45) Date of Patent: Apr. 17, 2007
(54) PRESSURE COMPENSATED COMPOSITE POLYMER OUTBOARD SENSOR ASSEMBLY		4,479,690 A * 10/1984 Inouye et al. 439/275 4,531,468 A * 7/1985 Simon 367/167 5,452,266 A 9/1995 Carter 5,909,408 A 6/1999 Warnan et al. 6,046,963 A 4/2000 Glenning 6,088,296 A 7/2000 Seaman et al. 6,683,819 B1 1/2004 Estaphan et al.
(75) Inventors:	Joseph S Thornton , Austin, TX (US); Christopher Pearson Thornton , Austin, TX (US); Shawn Lawrence Arnett , Austin, TX (US)	
(73) Assignee:	Texas Research International, Inc. , Austin, TX (US)	
(*) Notice:	Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 283 days.	* cited by examiner
(21) Appl. No.:	11/058,895	Primary Examiner —Dan Pihulic (74) Attorney, Agent, or Firm —M.A. Ervin & Associates; Michael A. Ervin
(22) Filed:	Feb. 16, 2005	(57) ABSTRACT
(51) Int. Cl.	G01V 1/38 (2006.01)	The use of a pressure compensation system and composite polymer materials results in a new type of outboard sensor assembly, of the type used to monitor the status and location of towed array systems from boats. The inventive system is lower in cost, easier to manufacture in quantity, lighter weight, less likely to leak, and with a lower failure rate than conventional systems.
(52) U.S. Cl. 367/130	
(58) Field of Classification Search 367/130, 367/106, 15, 167, 172, 18 See application file for complete search history.	
(56) References Cited		
U.S. PATENT DOCUMENTS		
4,298,964 A	11/1981 Warnshuis, Jr.	18 Claims, 11 Drawing Sheets

FIGURE 17.1
Patent Numbers and Patent Application Numbers

wishes to place the invention into the public domain. Because the defensive publication counts as prior art, the inventor prevents any other party from being granted a patent on the invention. Broadly defined, defensive publications are found in many formats; conference papers, journal articles, and technical reports are all examples of

ways inventors seek to publish them. Another common method is to simply post the specification somewhere on the Web where it will be easily located by a patent examiner. Some websites, like www.defensivepublications.org, exist solely for this purpose.

Since April 1968, the USPTO has provided inventors an official means to register their defensive publications. The Defensive Publication Program provided for the technical disclosure and subsequent publication of a pending application where the applicant has waived his rights to an enforceable patent. In May 1985, the Statutory Invention Registration System replaced the Defensive Publication Program. The most important difference between the two programs was that defensibility began with the publication date for the former, but was applied retroactively to the application date for the latter. Since the enactment of the AIPA in 1999, published applications have become de facto defensive publications; the use of statutory invention registration diminished, and the system was repealed completely with the Leahy-Smith America Invents Act of 2011 (P.L. 112-29, 125 Stat. 284, effective Mar. 16, 2013).

Defensive publications (also known as DEFs) and statutory invention registrations (also known as SIRs) are considered to be neither granted patents nor pending applications; but fortunately, they can still be retrieved from the USPTO's search products (and most others) by searching within the Patent Number field. DEF numbers begin with the letter T (e.g., T947001) and SIR numbers begin with the letter H (e.g., H002288). For all intents and purposes, these are treated as patent numbers.

Certificates of Correction, Disclaimers, and Reissue Patents

Once a patent is granted, it can be revised in a number of ways. The simplest is a certificate of correction, which may be requested by a patent's owner, or issued by the patent office, as long as two criteria are met. First, the correction must be of a clerical or typographical nature, or of minor character—adding references to prior art, changing the inventor's name, simple rewording of claims for clarity, and claiming the benefit of an earlier filing date. Second, the correction must not constitute new matter or require reexamination; in other words, the patent owner cannot request additional claims to be added.

Next, a disclaimer is a statement filed by an owner of a patent—or its applicant, if still pending—in which the owner relinquishes certain legal rights to the patent. There are two types of disclaimers: a statutory disclaimer is a statement in which the owner relinquishes legal rights to one or more claims of her patent; a terminal disclaimer dedicates to the public the entire term or the remainder of the term of a patent or application.

Certificates of correction and disclaimers are appended to the back of the patents they correct in the USPTO's search systems, and are both thereafter considered to be part of their original patents. They are not issued numbers independent of their patent or publication numbers, and therefore not searchable by any type of unique identification numbers. Monthly listings of certificates of correction can be found on the USPTO's website at www.uspto.gov/patents-application-process/patent-search/authority-files/certificates-correction. As of this writing, no similar listing is available for disclaimers.

Last, but not least, reissue patents are modified substitutes for patents that have been invalidated. Whenever a patent is deemed wholly or partly invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than

he had a right to claim in the patent, the USPTO can reissue a new patent for the invention disclosed in the original patent for the unexpired part of the term of the original patent. As with corrections and disclaimers, no new matter shall be introduced into the application for reissue. Reissue patents are identified with patent numbers that begin with the letters RE (e.g., RE45317).

For more information on any of the above listed patent types, the *Manual of Patent Examining Procedure* (MPEP), at www.uspto.gov/mpep/, should be consulted. As explained in its Foreword, the *Manual* provides patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications. It contains instructions to examiners, as well as other material in the nature of information and interpretation, and outlines the current procedures which the examiners are required or authorized to follow in appropriate cases in the normal examination of a patent application.

Patent Families

At its most fundamental level, a patent family is the group of granted patents issued from a single application. For example, an inventor wishing to file in multiple countries may file a Patent Cooperation Treaty (PCT) application and declare that she wants patent protection in the United States, Germany, Japan, China, and South Korea. If the patent is granted in all five countries, the family will include all five of those patents, plus the original application. This is the basic model, but there are others. Some family models will include withdrawn or reissued patents; and there are constructed models that include multiple independently filed applications for the same invention. (For a listing of patent family types, with descriptions, see Zimmerman's Research Guide at <https://law.lexisnexis.com/infopro/zimmermans/disp.aspx?z=1816#FAME>.)

Information Sources for Patents

USPTO's PatFT and AppFT

The USPTO's web-based database, PatFT, contains the full-text of all patents back to 1976, and is updated every Tuesday with patents granted the previous week. It is keyword-searchable by full-text and field-searchable by an astounding variety of attributes, shown in the sidebar.

High-quality PDF images are available for all US patents, including those dating back to the first US patent in 1790, but PatFT does not, as-of-yet, have digital full-text of pre-1976 patents, and the USPTO has not indexed pre-1976 patents by all of the available fields; these older patents are only field-searchable by Patent Number, Issue Date and Current CPC Classification. (Exceptions to what is available in PDF include unrecovered X-patents, withdrawn patents, or otherwise missing patents. Some of the patents missing from PatFT may be findable by other means; it's recommended that researchers contact their nearest PTRC for help locating known patents that are not available in PatFT. X-patents refer to patents that were lost in the 1836 patent office fire, of which an estimated 2,800 have been recovered.)

List of searchable fields in PatFT.

All Fields	Current US Classification	Prior Published Document Date
Title	Primary Examiner	Referenced By
Abstract	Assistant Examiner	Foreign References
Issue Date	Inventor Name	Other References
Patent Number	Inventor City	Claim(s)
Application Date	Inventor State	Description/Specification
Application Serial Number	Inventor Country	Patent Family ID
Application Type	Government Interest	130(b) Affirmation Flag
Applicant Name	Attorney or Agent	130(b) Affirmation Statement
Applicant City	Parent Case Information	Certificate of Correction
Applicant State	PCT Information	PTAB Trial Certificate
Applicant Country	PCT 371C124 Date	Re-Examination Certificate
Applicant Type	PCT Filing Date	Supplemental Exam Certificate
Assignee Name	Foreign Priority	International Registration Number
Assignee City	Reissue Data	International Registration Date
Assignee State	Reissued Patent Application Filing Date	International Filing Date
Assignee Country	Related US App. Data	International Registration Publication Date
International Classification	Related Application Filing Date	
Current CPC Classification	Priority Claims Date	
Current CPC Classification Class		

PatFT's sister database, AppFT, allows searching of all published, pending, non-provisional *applications* back to March 2001. Like PatFT, AppFT is keyword-searchable by full-text, and field-searchable by most of the same attributes as PatFT (some fields, such as Patent Number, don't apply to pending applications). High-quality PDF images are available for all US applications found in AppFT. Both PatFT and AppFT can be accessed at <http://patft.uspto.gov>.

When a pending application is granted, it is removed from AppFT and added to PatFT as a granted patent. Provisional patent applications are not published and therefore not available in AppFT. Applicants meeting certain requirements may withhold publication of their applications; these will not be available in AppFT unless their applicants later request publication. For reasons of national security, some applications are withheld from publication due to secrecy orders; those are not available in AppFT unless the secrecy order is lifted.

Resources at the PTRCs

The USPTO provides two other search tools free for public use; however, because they literally connect to the USPTO's network and require a special means for authentication, they are not available on the open Web and require a visit to either the nearest PTRC, or to the USPTO's Public Search Facility in Alexandria, VA. The tools are PubEAST (Public Examiner Automated Search Tool) and PubWEST (Public Web-based Examiner's Search Tool) and they include everything in PatFT and AppFT, plus much more. They include keyword-searchable digital full-text of granted patents back to 1971 and keyword searchable OCR'd (Optical Character Recognition) full-text back to 1920. Inventor names can also be searched back to 1920. These two systems also incorporate additional databases: the USPTO's Foreign Patents Retrieval System (FPRS), European Patent Office (EPO) abstracts, and Japanese Patent Office (JPO) abstracts. Explaining each of these additional databases is beyond the scope of this chapter, but it suffices to say that the PubEAST and PubWEST systems allow searching across granted US patents, pending US applications, and millions of non-US patent documents, all under one roof.

Both systems have far more indexed bibliographic fields than PatFT and AppFT—more than 90 in total. For example, patents that were prosecuted by a specific agent, attorney, or examiner can be searched, or finding out to which art unit at the USPTO a specific patent application has been assigned to can be revealed. Both provide a full suite of Boolean, proximity, truncation, and numerical operators, whereas PatFT and AppFT provide just a few. In addition, while PatFT and AppFT support right-truncation, PubEAST and PubWEST support left, right, and middle truncation. By default, PubEAST and PubWEST will automatically search plurals and some alternate spellings (e.g., color OR colour). This feature can be overridden, but it isn't available at all in PatFT or AppFT. Additionally, both of these search environments can be greatly customized for optimization based on the searcher's needs and habits. Features that are used most can be displayed prominently, while features rarely used can be hidden away. Panes, toolbars and panels can be moved around and displayed in the most convenient locations for the user.

So, what are the differences between PubEAST and PubWEST? Why are there two nearly identical systems? Both of these were originally examiner search systems that were made available to the public years after their initial implementation at the USPTO. The underlying data is exactly the same for both systems and the same documents may be found no matter which system is chosen. PubWEST is the older of the two systems, and while it does look a bit dated, it has a much simpler and more recognizable search interface than PubEAST. Most users will be more at ease with PubWEST.

On the other hand, PubEAST was built from the ground up to closely mimic what examiners do in practice, which is, to quickly review large stacks of patent documents, sort them, mark them for further review, and get irrelevant documents out of their workspace. Its interface is much more sophisticated, and capable of doing quite a bit more. The user's numeric keypad doubles as a navigation keypad which greatly increases the flexibility, speed, and capabilities in reviewing retrieved documents. Single-key tagging of the most relevant documents pertinent to the searcher's target invention automatically creates a new list and allows for many additional capabilities for refinement. The use of Family ID filtering helps the searcher avoid multiple documents describing

virtually the same invention by reducing the total number of documents in the results list—all documents in a family are tucked away under the priority document for that family. And, PubEAST uniquely allows for user-annotation of records, or even specific pages of a document, that a searcher finds important. User manuals for both PubEAST and PubWEST, as well as expert advice from a librarian, are available at PTRC locations and at the USPTO's Public Search Facility.

Earlier methods of providing patents to PTRCs included CASSIS (optical discs, through 2011) and microfilm (through 1999), both with complete backfiles. Some PTRCs have chosen to retain their optical discs, and most will still have the microfilm. The microfilm collections are the best archival source for patent images where the electronic version was poorly scanned.

Due to the importance of color rendition of plant patents, those are still printed in color and retained in paper format at PTRCs, back to 1931 (holdings will vary by PTRC location). Plant patents can be searched via PatFT, PubEAST, PubWEST and CASSIS, but the images in those systems are in black and white. As with utility and design patents, the microfilm collections are the best archival source for full-color plant patent images up to 1999. The print volumes held at PTRCs serve as the best source for plant patents published after 1999.

Foreign Patents: Espacenet and Patentscope

One does not need to visit a PTRC and use PubEAST or PubWEST to search for foreign patents—there are two highly recommended, freely available, web-based databases that are designed specifically for international use. The World Intellectual Property Organization (WIPO), the administrative authority for the PCT, has a database called Patentscope (<https://patentscope.wipo.int/search/en/search.jsf>). Patentscope includes all PCT filings and all resulting granted patents—one for each country where the patent was granted. In addition, it includes non-PCT and pre-PCT collections for many of its member countries, including the United States. The best feature in Patentscope is its two-way translation capabilities. First, Patentscope provides a search-type called Cross Lingual Expansion, available at <https://patentscope.wipo.int/search/en/clir/clir.jsf>, which translates a query into one or up to a dozen different languages in order to retrieve non-English language documents. See figure 17.2 for a screenshot showing the list of available languages. Second, it can translate those non-English search results into English or up to a dozen other languages. This is the only freely available patents database that provides this feature.

The European Patent Office (EPO), a regional, nongovernmental patent-granting authority, has a database called Espacenet (<http://worldwide.espacenet.com/advancedSearch>). It is in the EPO's interest to collect all the patent documents of the world, so many non-EPO and non-PCT patent-granting authorities are available. Espacenet is comprised of patent documents from 92 different countries, compared to Patentscope's 148 (EPO, 2011; WIPO, 2013). On the other hand, Espacenet boasts 90-million documents, where Patentscope has only around 45-million (EPO, 2015; WIPO, 2015b). The best feature in Espacenet is its fully integrated implementation of the Cooperative Patent Classification (CPC) system, covered later in this chapter.

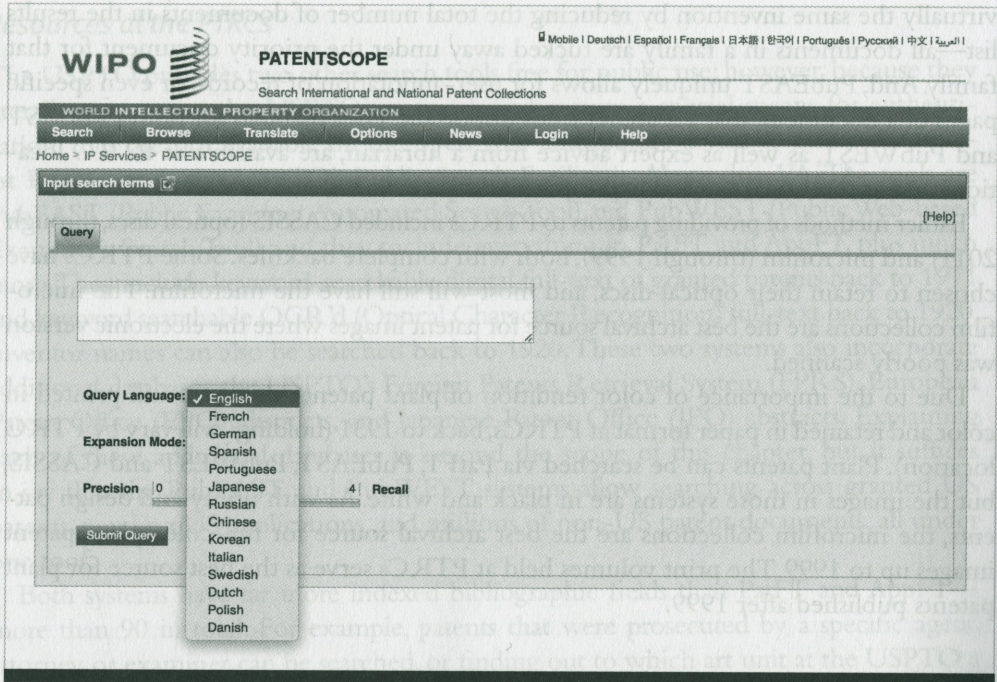


FIGURE 17.2

List of Available Languages in Patentscope's Cross Lingual Expansion

Note: By default it will translate a query into all available languages. If Expansion Mode is set to Supervised, the user can select which languages to use.

Both Patentscope and Espacenet have large pre-digital backfiles: some records will be bibliographic data only, some will have abstracts (translated into English in most cases), and some will have searchable full-text. Most will at least include scans of the original documents, but neither provides OCR full-text from those images.

Google Patent Search

Google is the most recent big player in free online patent databases. Its claim to fame in this crowded market is that it has scanned and OCR'd most of the documents that were previously not available in full-text. Google Patent Search (<https://patents.google.com>), covers USPTO, EPO, and WIPO documents, so it is a convenient one-stop-shop for all three. It is not without its problems, most obvious being that the OCR quality is fairly poor, and the search options are minimal. It does include an advanced search option that allows searching by patent number, title, inventor, assignee, or classification, found at www.google.com/advanced_patent_search. Google continues to develop new features for its patent search tool. To date, it has been integrated in some interesting ways with Google Scholar, and a Prior Art Finder is available for those who trust Google's algorithms to perform this laborious yet extremely important task. See figure 17.3 for a sample screenshot of the Prior Art Finder.

The screenshot shows the Google Prior Art Finder interface. On the left, there are search filters: 'Search Terms' with 'us20010046535' entered, and 'Custom Date Range' with empty date fields. The main results area shows three patent entries:

- Printing on foods**: www.google.com/patents/US20010046535. App. - Filed Mar 23, 2001 - Published Nov 29, 2001 - Stephen Bowling - Stephen Bowling. **US 20010046535 A1**. Abstract. A method of manufacturing a product, and a product, in which a logo and/or trademark of a sports team, league or association is ...
- Forming roller structure for dough sheet products, personalized ...**: www.google.com/patents/US20120263851. App. - Published Oct 18, 2012 - Edgar Alonzo Rodriguez Flores - Edgar Alonzo Rodriguez Flores. ... Jun 4, 2001, Nov 1, 2001, Dieter Blaschke, Method for making cookies. **US20010046535** *, Mar 23, 2001, Nov 29, 2001, Stephen Bowling, Printing on foods.
- Method to obtain a food product for immediate consumption or to be ...**: www.google.com/patents/US20050079257. App. - Filed Oct 15, 2003 - Published Apr 14, 2005 - Jose Barbosa Neto - Neto Jose Barbosa Machado. ... Corporation, Optimal hog carcass processing system and method. **US20010046535** *, Mar 23, 2001, Nov 29, 2001, Stephen Bowling, Printing on foods.

FIGURE 17.3 Prior Art for Application #US20010046535, Printing on Food, Found with Google's Prior Art Finder

Patentscope, Espacenet, and Google Patents Search all include special ways to group families together, but they don't offer a way to tuck them all into one search result like PubEAST does. This could mean the difference of hundreds of redundant documents in search results; this is especially true for Google where there will be hundreds more search results to begin with, due to their database including older documents.

Patent Classification Systems

Patent classification systems are sets of hierarchical taxonomies used to organize inventions by their areas of technology and by specific features within each technology area. This makes them uniquely suited for searching and sorting large collections of patents. Inventions typically receive a primary classification describing the main inventive feature or use, along with one or more additional classifications describing secondary features of the invention. Patent classification systems are living documents that are continually growing to accommodate new areas of technology and refined to better accommodate existing ones.

To be as thorough as possible, a prior art search should not consist of keyword searching alone; a comprehensive prior art search wouldn't be complete without first searching by patent classification. Searching by patent classification avoids the many pitfalls of relying on keywords: vague or inconsistent terminology (e.g., Amusement Device instead of Toy), obsolete names and terms (e.g., water closet), different meanings in different fields (e.g., computer mouse and mouse trap), and synonyms (e.g., rodent extermination device rather than mouse trap). Another huge limitation of relying on keyword searching is that by doing so, the searcher is effectively excluding the large body of earlier patent documents that, while available as images, are not full-text searchable. Classification

searching allows the retrieval of all patents back to the 1790s because even the earliest patents have been indexed with patent classification codes.

Cooperative Patent Classification (CPC, www.cooperativepatentclassification.org/index.html) is the system developed and used by the USPTO and the EPO. Its website includes the latest classification scheme with definitions, notices of changes, and concordances from CPC to related classification schemas European Classification (ECLA) and International Patent Classification (IPC).

The Cooperative Patent Classification schema has also been incorporated into many of the patent search systems to greater or lesser degree. Espacenet has fully integrated a classification search type that allows a searcher to begin his search by keyword querying the CPC schema itself. The search algorithm retrieves a relevance-ranked list of possible classification codes, based on the keywords used. Once entry is made into the schema, the searcher can browse, read the definitions, scope notes and cross-references, and then select relevant classification codes to add to the patent search form. Using the form at <http://worldwide.espacenet.com/classification> is probably the most immediate way to begin a prior art search using classification.

The USPTO website also has the CPC schema (www.uspto.gov/web/patents/classification/), but has not yet integrated a top-level feature like Espacenet's classification search to PatFT or AppFT. The USPTO's site search box can be used to somewhat duplicate Espacenet's classification search by using the keyword pattern: CPC Scheme <keywords>. Similarly, if a searcher wishes to search only definitions of classification symbols, bypassing the schema itself, she can use CPC Definition <keywords>. This will limit site search results to only those from the CPC schema. The searcher then browses the schema, reads the definitions, scope notes and cross-references, and identifies relevant classifications. Once a thorough search of the CPC is conducted, and all relevant classification codes have been identified, the searcher goes to PatFT and AppFT and begins the search with the search field for Current CPC Classification.

The CPC schema is identical on all three of the aforementioned sites (CPC's website, Espacenet, and the USPTO's website); updates are synchronized and there should never be any question as to whether one is more current than the others. However, schema search results may differ between Espacenet and the USPTO site because they employ different algorithms to retrieve the most relevant classification results.

Both PubEAST and PubWEST do include integrated classification tools, including an index, definitions, and cross references. Using PubEAST, one may conduct a classification search in a similar manner as in Espacenet.

US Patent Classification (USPC) has been discontinued as of January 2015, and is no longer used to classify utility patent documents. The entire backfile of US utility patents has been retrospectively reclassified using CPC, so searching with this new system can retrieve even the oldest documents. The USPC has been frozen and is no longer under development, but is still available for the time being, and is still used for classifying plant and design patents in the United States. Since the pre-2015 backfile of patent documents are classed with USPC, a supplemental search using USPC may be valuable to searchers. The USPC can be browsed in its frozen state at the same URL given for the USPTO's CPC tools, www.uspto.gov/web/patents/classification/.

At the same URL can be found the US Patent Classification (USPC) to IPC concordance, and, while no concordance exists either from or to CPC, a tool to identify the most statistically relevant mapping from USPC to CPC is there. The mapping tool uses a relevancy algorithm to help the user find similar CPC classification symbols based on words in a USPC symbol's definition. For design patents, the USPTO provides the USPC to Locarno Concordance. Locarno is the classification system used by WIPO to organize industrial design registrations which are similar to US design patents.

The Manual of Classification (www.uspto.gov/web/patents/classification/selectnumwithtitle.htm), lists the class numbers and descriptive titles of the US patent classes, including design classes. There is also an index to the Manual, the Index to the US Classification System—an alphabetical listing of subject headings referring to specific classes of the classification system found at www.uspto.gov/web/patents/classification/uscindex/indextouspc.htm.

International Patent Classification (IPC, www.wipo.int/classifications/ipc/en/) is WIPO's system for organizing PCT filings and is the foundation for CPC. IPC is quite general with about 72,000 classification symbols, where CPC is very granular with about 260,000 (EPO & USPTO, 2015; WIPO, 2015a) In contrast, the USPC had about 150,000 codes at its discontinuance. CPC uses the entire IPC schema as a framework, adding additional groups and subgroups with more descriptive definitions.

File Wrappers and Public PAIR

The file wrapper—sometimes called case file, prosecution history, or simply application files—of a patent application is the patent office's official record for the application. A file wrapper is the folder (virtual or literal) into which documents related to a particular patent application are collected and preserved; it contains the complete record of a patent's prosecution—the process of drafting, filing, and negotiating with the USPTO for the grant of a patent—from the initial application to the notice of allowance, or the final notice of disallowance. Some of the most interesting documents found in the file wrappers are the correspondence and office actions that take place between the patent office and the applicant. The file wrapper also includes all related post-grant files, such as maintenance events and changes in legal status.

File wrappers are made public when the patent application is published—up to 18 months after earliest filing date—or when a patent is granted, whichever is first. Since pending applications were not published prior to March 2001, only file wrappers for granted patents are available prior to that date. File wrappers can be found in a number of places, based on their filing date.

Public PAIR (Patent Application Information Retrieval, <http://portal.uspto.gov/pair/PublicPair>), is used to retrieve granted and pending published application data, transaction history, information about the agent or attorney prosecuting the application, and assignment data. File wrappers are available for most applications published since mid-2003 and are accessed by selecting the Image File Wrapper (IFW) tab in Public PAIR, as shown in figure 17.4. If the wrapper of interest is not included in Public PAIR, a print copy may be requested using an embedded widget. The IFW contents are PDF files that can be downloaded and printed.

The screenshot shows the USPTO.gov website interface for Patent Application Information Retrieval. The header includes the USPTO logo and the text "The United States Patent and Trademark Office, an agency of the Department of Commerce". Navigation tabs for Home, Patents, Trademarks, and Other are visible. The main content area displays application details for 13/780,954, titled "METHODS OF PRINTING FOOD LABELS FOR RESTAURANT FOOD ITEMS". A table of available documents is shown below, with columns for Mail Room Date, Document Code, Document Description, Document Category, and Page Count. The table lists various documents such as "Non-Final Rejection", "List of references cited by examiner", "Bibliographic Data Sheet", "Index of Claims", and "Examiner's search strategy and results".

Mail Room Date	Document Code	Document Description	Document Category	Page Count
09-09-2015	CTNF	Non-Final Rejection	PROSECUTION	19
09-09-2015	892	List of references cited by examiner	PROSECUTION	1
09-09-2015	BIB	Bibliographic Data Sheet	PROSECUTION	1
09-09-2015	FWCLM	Index of Claims	PROSECUTION	1
09-09-2015	SRNT	Examiner's search strategy and results	PROSECUTION	9
09-09-2015	SRFW	Search information including classification, databases and other search related notes	PROSECUTION	1
08-27-2015	SRNT	Examiner's search strategy and results	PROSECUTION	1
08-28-2014	NTC-PUB	Notice of Publication	PROSECUTION	1
06-12-2013	OATH	Oath or Declaration filed	PROSECUTION	2
06-12-2013	OATH	Oath or Declaration filed	PROSECUTION	2
06-12-2013	OATH	Oath or Declaration filed	PROSECUTION	2
06-12-2013	OATH	Oath or Declaration filed	PROSECUTION	2
06-12-2013	WFEE	Fee Worksheet (SB06)	PROSECUTION	2
06-12-2013	N417	EFS Acknowledgment Receipt	PROSECUTION	2
06-11-2013	OATH	Oath or Declaration filed	PROSECUTION	10
04-02-2013	APP-FILE-REC	Filing Receipt	PROSECUTION	3
04-02-2013	WFEE	Fee Worksheet (SB06)	PROSECUTION	1
04-02-2013	M327	Miscellaneous Communication to Applicant - No Action Count	PROSECUTION	1
03-21-2013	WFEE	Fee Worksheet (SB06)	PROSECUTION	1
02-28-2013	ADS	Application Data Sheet	PROSECUTION	7
02-28-2013	SPEC	Specification	PROSECUTION	13
02-28-2013	CLM	Claims	PROSECUTION	4
02-28-2013	ABST	Abstract	PROSECUTION	1
01-28-2013	NDW	Drawings, Mark and White Line Drawings	PROSECUTION	8

FIGURE 17.4 Image File Wrapper for Application Number 13/780,954, Methods of Printing Food Labels for Restaurant Food Items

The USPTO keeps legal custody of physical file wrappers for 40 years and then transfers custody of those records to the National Archives and Records Administration (NARA, discussed in detail in chapter 18) in College Park, MD. Copies of any file wrapper less than 40 years old and for a patent that was granted but is not available in Public PAIR may be requested for a fee from the USPTO's Public Records Division at <http://ebiz1.uspto.gov/oems25p/index.html>. On-site access to application files is available at the USPTO's File Inspection Unit located in Randolph Square in Shirlington, VA. Files are stored in off-site repositories, so calling ahead is advised; the telephone number is (703) 756-1100.

NARA has patent application files older than 40 years and back to 1836. All USPTO records at NARA are under Record Group 241. The archived contents are listed at www.archives.gov/research/guide-fed-records/groups/241.html. All requestors are asked to contact the main reference desk, either online at www.archives.gov/research/ or at 1-866-272-6272 to request copies of archived applications and file wrappers.

Official Gazette: Patents

The *Official Gazette of the United States Patent and Trademark Office: Patents*, published since 1872, contains announcements of the patents issued each week, and weekly pat-

ent office notices that include certificates of correction, disclaimers, and reissue patents, among others. It can be used to find basic information such as inventor, title, and a short abstract and representative drawing for each patent.

The *Official Gazette* originally contained notices for both patents and trademarks, but was split into two separate publications in July 1971. The *Official Gazette for Patents* ceased print publication in 2002 but continues electronically every Tuesday as the Electronic Official Gazette for Patents (eOG:P) at www.uspto.gov/learning-and-resources/official-gazette/official-gazette-patents. The most recent 52 issues of the *Official Gazette: Patents* are available there and may be searched by keyword or browsed by geographic origin of the inventor, inventor or assignee name, or classification code. For each notice, a link to the full-text record in PatFT is provided. For patent gazettes older than 52 weeks, but published since 1995, only the notices portion is available on the USPTO's website, at www.uspto.gov/learning-and-resources/official-gazette. However, patent gazettes in their entirety can still be downloaded from the Reed Technology's archive at patents.reedtech.com/pgog.php.

Older *Official Gazettes* can also be found at most PTRCs and some Federal Depository Libraries (FDLs) on optical discs 1872–2011, and a mixed collection of microfiche and microfilm, 1872–2002. There is also an annual index to the *Official Gazette* provided to FDLs under SuDocs number C 2.5.

Assignments

An assignee is the person or organization to which a patent grant is legally transferred. The Assignment Search database, at <http://assignment.uspto.gov>, contains all recorded patent assignment information back to August 1980. The data is updated weekly in PatFT, AppFT, and other USPTO search products. These databases reflect the most current assignee data that the USPTO has on record.

Keeping assignment data up-to-date is the responsibility of the assignor and the assignee whenever an assignment transaction takes place. It is considered best practice for assignees to keep the public record up-to-date, but there is no law that says they must do so. When relevant information is given to the USPTO to be recorded in the USPTO's assignment database, the USPTO simply puts the information on the public record and does not verify the validity of the information. Recordation is a ministerial function—the USPTO neither makes a determination of the legality of the transaction nor the right of the submitting party to take the action.

To further complicate matters, entity names are neither normalized nor spell-checked; to retrieve all records for a given assignee, multiple searches may be necessary, and if any assignments were misspelled, those would likely be missed in the search. Note that the assignee indicated on the actual patent document is often not the patent's current assignee of record, as shown in figure 17.5.

Patent Litigation and Case Law

There are various types of legal proceedings surrounding patents. These range from infringement litigation handled by federal courts to other proceedings like pre-grant

Reel/Frame	Execution Date	Owner (Assignee)	Patent	Publication	Properties
34905-832	Jan 23, 2015	INTELLECTUAL KEYSTONE TECHNOLOGY LLC	6388644		1

ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignee: INTELLECTUAL KEYSTONE TECHNOLOGY LLC
 Assignor: SAMSUNG SDI CO., LTD.

Correspondent:
K. KEVIN MUN
 8180 GREENSBORO DRIVE
 SUIT 1070
 MCLEAN, VA 22102

Assigned Property
Patent 6388644 (May 14, 2002)
 COLOR DISPLAY DEVICE
 Abstract of Title »

[View Assignment](#)

(12) **United States Patent**
De Zwart et al.

(10) Patent No.: **US 6,388,644 B1**
 (45) Date of Patent: **May 14, 2002**

(54) **COLOR DISPLAY DEVICE**

(75) Inventors: **Siebe T. De Zwart, Sijbrandus Van Heusden, Gerrit Oversluizen**, all of Eindhoven (NL)

(73) Assignee: **U.S. Phillips Corporation, New York, NY (US)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/510,143**

(58) Field of Search 345/41, 60, 62, 345/63, 67, 68, 90, 76, 77; 313/581, 582, 585, 592; 315/169.1, 169.3, 169.4

(56) **References Cited**
 U.S. PATENT DOCUMENTS

4,743,799 A	* 5/1988 Loy	313/493
4,999,791 A	* 3/1991 Schumann	364/525
5,402,143 A	* 3/1995 Ge et al.	345/102

* cited by examiner
 Primary Examiner—Bipin Shalwala

FIGURE 17.5 Detail Comparing the Assignee on the Original Patent Document to the Assignee-of-Record in the USPTO’s Assignments Database

and post-grant interferences. Chapter 7, Case Law and the Judicial Branch, applies to all patent litigation cases involving two parties where a patent has been issued (i.e., it’s not still pending). Since patent law is federal law, cases involving patent infringement begin in one of the US District Courts. Appeals to these cases are handled at the US Court of Appeals for the Federal Circuit in Washington, DC, circumventing the regional federal appeals courts. If further appeal is sought by either party, a petition for writ of certiorari is submitted to the Supreme Court, who may or may not hear the case (Harris, 2015). For locating dockets and briefs from infringement cases, chapter 7 is also informative.

Pre-grant oppositions and post-grant interferences are also types of patent disputes, but these cases are heard directly by the Patent Trial and Appeal Board (PTAB). Appeals that arise from PTAB decisions are heard by the US Court of Appeals for the Federal Circuit. (As the name implies, the Patent Trial and Appeals Board does also preside over appeals; but here *appeals* refers to something else: appeals made by applicants over adverse decisions of examiners in patent applications and reexamination proceedings, not appeals of decisions made by lower courts.)

Traditionally, oppositions and interferences could only be filed by parties directly affected by a patent allowance (i.e., the potential plaintiff of a patent case), but with

the enactment of the America Invents Act of 2011, an interference may now be initiated by any third-party who finds a claim in any pending application or granted patent that he has reason to believe can be invalidated. This principle is called *inter partes* review—essentially, the public has been invited to submit prior art to the USPTO that may invalidate patents or prevent them from being issued to begin with. It is hoped that this process will increase the quality of patents that are issued. Interferences and oppositions before PTAB will not be found in the usual places as outlined in chapter 7. Instead, PTAB offers its own sources for finding information on these proceedings.

The Patent Review Processing System (PRPS, <https://ptabtrials.uspto.gov/>) is where information on pending and concluded PTAB proceedings are located. Case histories can be searched by case number, patent number and/or application number, and can be filtered by party name and filing date. Additionally, PTAB offers a portal for both filing and looking up interferences, located at <https://acts.uspto.gov/ifiling/>. Interferences can be looked up by interference number, patent number, application number, or inventor's name. Lastly, PTAB Decisions (www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/decisions) lists all of PTAB's final decisions, including separate lists of those decisions considered precedential opinions and informative opinions.

In addition to PTAB's resources, the USPTO has another page of patent litigation resources at www.uspto.gov/patents-maintaining-patent/patent-litigation/resources, listing third-party services for finding basic information about patent cases and the parties involved in them. Even though these third-party resources are commercial services, each of them offer a minimal tier of free case information. At the time of this writing, all but one of these services require setting up a free account. Patexia seems to be the only one that doesn't require a user log-in, and it provides quite a bit of free information on patent case histories, comparable to what might be found in a LexisNexis search. It is unknown at this time how comprehensive Patexia or the other commercial products are in comparison with LexisNexis, and it's advised that researchers use the latter if access is available. One significant advantage to using LexisNexis is its support of *Shepard's Citations*. To look up all available court documents on a specific patent, irrespective of the parties involved, one simply needs to type in the magic keyword *patno* followed by the target patent number into the Shepard's search interface.

For applications published since 2003, all documents issued by PTAB are also added to their respective image file wrappers in Public PAIR. Patent interference case files for historical patent cases are available from NARA in record group 241.

Historical Research

Conducting historical research presents a whole new set of problems from what has been covered thus far. Historians, anthropologists, and genealogists—just to name a few—often need to delve into the murky backfile of the patent literature to find documents for their research. As already mentioned, pre-1976 patents are not searchable by full-text without the use of Google's imperfect OCR'd full-text; and even then, all the problems associated with searching by full-text ring true. It's impossible to find all relevant documents and limit irrelevant documents without a thorough classification search. Fortunately, the entire backfile of US patents has been classified with Cooperative Patent

Classification, and the frozen USPC is still available for additional discovery. Additionally, there are number of finding aides to turn to for assistance.

X patents, also called name and date patents, were the unnumbered patents issued prior to the 1836 fire that destroyed the patent office, along with all the records stored there. Many of the lost patents have been recovered by making new copies from originals provided by the patentees and their heirs. Whenever an X patent is discovered, it is logged, given a number (beginning with the letter X), and processed for inclusion in the various search systems. New copies are made to keep on file at the patent office, and the originals returned to their owners. Notice of the recovered document is included in the weekly *Gazette*. *Journal of the Franklin Institute*, beginning 1826, also contains information on restored patents.

Subject-matter index of patents for inventions issued by the United States Patent office from 1790 to 1873, inclusive, compiled by M.D. Leggett in 1874 and published by the Government Printing Office, can be found in many libraries, and also scanned pages found in various places online. The *Subject-matter index* provides patent number, date of registration, inventor, and inventor residence. For newer indexes, see the *Index of Patents Issued from the United States Patent and Trademark Office* (General Index of the *Official Gazette*) and *Annual Report of the Commissioner of Patents*, below.

Index of Patents Issued from the United States Patent and Trademark Office includes both a subject index and list of patentees, along with their places of residence. They provide the patent number, registration date, and the volume and page number where it can be located in the *Official Gazette*; these are the most effective methods for starting an investigation of an older patent or inventor. The subject index is arranged by US classification and then alphabetical by subject matter. These volumes once formed the basis for inventor name searching but it ceased publication in paper in 2002. With the ability to search inventor names online back to 1920 in the USPTO's PubWEST, PubEAST, search systems, and the cumulative index of patents included on CASSIS, only the paper indexes for years prior to 1920 are retained by most PTRCs. Some Federal Depository Libraries also retain the indexes under SuDocs C 21.5/2.

Annual Report of the Commissioner of Patents (1837–1999) is the annual fiscal year report of the USPTO. It includes expenditures for restoration of records, models and drawings, and annual grants by state. Note that prior to 1913, the *Annual Report* was synonymous with the aforementioned *Index of Patents*. In 1913 they were divided into two separate volumes. Unlike the *Index of Patents*, the paper reports from 1920 and later are retained by PTRCs. In 2000, this title became *Performance and Accountability Report*. Reports from 1993 to present are available on the USPTO website (www.uspto.gov/about-us/performance-and-planning/uspto-annual-reports). These reports contain some useful statistical data, for example, grants by state or grants by class. Annual Reports back to 1837 are also available in the US *Congressional Serial Set* that can typically be found at Federal Depository Libraries.

Several other finding aids are available in NARA Group 241. Some examples include

- Additional Improvement Patents (1836–1861)
- Patent Interference Case Files (1839–1900) includes general correspondence 1836–1868, case files for patent rights extensions, 1836–1875 and patent application files 1837–1918

- Patent Drawings, 1791–1877 is a collection of 320 rolls of microfilm in five parts
- List of Patents for Inventions & Designs 1790–1847, published at the direction of commissioner Edmond Burke

Last, but not least, the Patent and Trademark Resource Center Association (PTRCA) website lists a wide variety of historical, regional, and specialized databases and other finding aids on its website at <http://ptrca.org/history>.

Trademarks

Trademarks inhabit a simpler universe than patents; there are fewer types of documents, fewer places to find information about them, and, prosecution from application to registration is more standardized and straightforward.

Trademark Registration Certificates and Applications

As mentioned in the introduction to this chapter, federal trademark registration is optional. Where the USPTO's patents collection is comprised of a near-complete record of all inventions ever patented in the United States, their trademarks collection is but a subset of an unknown larger collection of unregistered marks. The basic trademark document is referred to as its registration certificate, and as with patents, applications for trademark registration certificates begin with the trademark application. Both registration certificates and their applications are publicly available.

Trademarks do not have equivalents to defensive publications or statutory invention registrations; likewise they do not have equivalents of certificates of correction, disclaimers, or reissue patents.

Information Sources for Trademarks

Trademark Electronic Search System (TESS)

TESS, found at www.uspto.gov/trademarks-application-process/search-trademark-database, includes bibliographic records for all active (live) registered and pending federal trademarks, plus nearly all abandoned (dead) registrations. (Roughly 20,000 dead marks, predating modern registration and archiving standards, were never made available in TESS. These missing marks are available at many PTRCs on the discontinued CASSIS optical discs.) TESS offers several options for searching, including a unique Design Code search for finding marks according to their graphical elements. The Design Search Code Manual can be found at <http://tess2.uspto.gov/tmdb/dscm/index.htm>. TESS supports many advanced search modifiers (i.e., left, right, and middle truncation, proximity, etc.), allowing users to employ pattern matching techniques that may help identify confusingly similar marks. A librarian at a PTRC may be better suited for design code searching and pattern matching.

Trademark Status & Document Retrieval (TSDR)

TESS is a bibliographic database, but each record in TESS links directly to its application files in the TSDR system located at <http://tsdr.uspto.gov/>. Here are found the complete electronic records for trademark filings, images of original registration certificates, and other prosecution documents. Applicants may also retrieve status information about their pending trademarks. In addition to linking from TESS, TSDR may be searched by simply entering a valid trademark serial number or registration number.

Official Gazette of the United States Patent and Trademark Office: Trademarks

The *Official Gazette for Trademarks* provides notices of canceled, renewed and newly registered trademarks, and an index of registrants. The *Official Gazette* ceased paper publication in 2012 and has been published on Tuesdays via the USPTO website since 2001. Issues were also distributed to PTRCs on optical discs from July 2, 2002, to December 27, 2011, and are still retained by many PTRC libraries. Complete backfiles on microforms (fiche and/or film) from 1872–2002 are also available at most PTRCs and many FDLs.

The gazette also allows browsing or searching through the bibliographic information and drawings of trademarks published for opposition each week. The most recent 52 issues are available online at www.uspto.gov/learning-and-resources/official-gazette/trademark-official-gazette-tmog and are available at the PTRCs.

Gazettes that are older than 52 weeks, but published since 2002, can still be downloaded in their entirety at www.uspto.gov/learning-and-resources/official-gazette/trademarks/trademark-official-gazette-tmog-archived-editions. For 1995 and later, the Notices portions can be downloaded at www.uspto.gov/learning-and-resources/official-gazette.

Prior to 1995 a consolidated listing of important notices from both the *Official Gazette* and the *Federal Register* in paper is available in either the first or second weekly issue of the *Official Gazette* for January. The consolidated listing shows notices in effect from July 1, 1964, through December of the previous year. These are held at Federal Depository Libraries and PTRC libraries. These are also excerpted and collected at www.uspto.gov/trademark/trademark-updates-and-announcements/trademark-notices-and-comments.

Trademark Assignment Query Menu

As with patents, the assignee indicated on the original registration certificate may not be accurate. Assignees may be searched or assigned using Trademark Assignment Query Menu at <http://assignments.uspto.gov/assignments/q?db=tm>. Records can be retrieved by serial or registration number, assignor or assignee, or applicant or registrant. TESS and TSDR will reflect the most current assignee that the USPTO has on record. This system contains all recorded trademark assignment information from 1955. Trademark assignments recorded prior to 1955 are maintained at NARA.

State TMs

The USPTO is the granting authority for federal trademark registration certificates in the United States; but because of the time and expense involved, trademark owners will often forgo federal trademark registration if they are not engaged in, or plan to be engaged in, interstate commerce. For these mark holders, many states have their own systems for registering trademarks, and some of them offer online databases for searching. There is no comprehensive listing of state databases; researchers are advised to begin their enquiries on the Secretary of State's website for the target state.

Trademark Litigation and Case Law

The Trademark Trial and Appeal Board (TTAB) is the administrative tribunal responsible for conducting hearings and issuing final decisions on the merits of reexamination appeals, oppositions to, and cancellations of registrations. TTAB is limited to these issues and will not hear cases on unfair competition, criminal conduct, copyrights, or anti-trust statutes, even when trademarks are central to them. TTAB doesn't grant damages, issue injunctions, or award costs or fees, but can be much faster and less costly than prosecuting trademark disputes in US District Courts.

TTAB trials are not traditional court trials, but rather trials on paper. Proceedings are prosecuted by submission by the involved parties of documents to TTAB, and follow a strict procedure and time line. TTAB decisions are made by a panel of three administrative judges; a judge who disagrees with a decision may write a dissenting opinion, and a judge who agrees with a decision but doesn't agree with the reasoning behind it may write a concurring opinion. Because the entirety of the proceedings are written, documentation is readily available, as are decisions and dissenting and concurring opinions. All of this can be found in TTABVUE, the Trademark Trial and Appeal Board Inquiry System, at <http://ttabvue.uspto.gov/ttabvue/>. Proceedings may be searched by proceeding number, by application or registration number, or by party. Pending proceedings can be tracked in real-time. TTAB decisions are also published in the United States Patent Quarterly and in the Official Gazette (Trademarks). TTAB also publishes its Final Decisions at <http://e-foia.uspto.gov/Foia/TTABReadingRoom.jsp>.

Federal trademark disputes that lie outside of TTAB's purview generally begin federal district courts. Appeals to TTAB decisions are filed in federal circuit courts, but a plaintiff may also begin a new trial from scratch through federal district courts. Chapter 7 of this book discusses how to find proceedings from these courts.

There are three important reference sources for researchers and practitioners wishing to learn more about US trademark law. First, *the Trademark Trial and Appeal Board Manual of Procedure* (TTAB Manual) provides practitioners with basic information generally useful for litigating cases before the Trademark Trial and Appeal Board. It can be found at <http://tbmp.uspto.gov/RDMS/detail/manual/TBMP/current/tbmpd1e2.xml>. Second, *U.S. Trademark Law: Rules of Practice & Federal Statute* includes a the complete 37 CFR Part 2- Rules of Practice in Trademark Cases, the text of the Trademark Act of 1946, as amended, and related statutory sections. It also lists proposed rules and

recent final rules affecting trademark law. It can be found at www.uspto.gov/trademark/laws-regulations. Third, the *Trademark Manual of Examining Procedure* (TMEP) provides the practices and procedures relative to prosecution of applications to register marks in the United States. The *Manual* contains guidelines and materials in the nature of information and interpretation, and outlines the procedures that examining attorneys are required or authorized to follow in the examination of trademark applications. The *Manual* is searchable by keyword, either across the full text, or across the subject index, at <http://tmep.uspto.gov/RDMS/detail/manual/TMEP/current/d1e2.xml>.

Conclusion

This corpus of patent documents is the largest collection of technical information in the world. To date, there are more than 9 million granted patents and an estimated 1.25 million patent applications pending in the United States; worldwide, there are more than 90 million patent documents (granted and pending) combined. Patents and patent applications include problem-solving information, cutting-edge research, and technical expertise that can't be found anywhere else. They are considered primary sources that are often consulted by researchers in the sciences and engineering, right along with other scholarly literature. The patent literature is also considered to be an authoritative record of the history of technology and is used by historians, genealogists, sociologists, and other researchers who wish to learn more about how society has used technology to solve problems of the past.

The corpus of trademarks, while perhaps not as enthralling as patents, represents a vast collection of business and products information that can't be found anywhere else. There are currently around two million active trademarks in the United States, with several million more dead marks searchable in TESS. Trademark registrations are primary sources with uses in many areas, including history, design, business and more.

For these reasons, the resources outlined in this chapter should be included in the researcher's toolbox for just about any subject. Fortunately, the USPTO and other organizations find them important enough to make them publicly accessible, and even the older information is becoming easier to access.

Exercises

Patents

1. Use PatFT to find out what Tabitha King invented. What is the patent number? What is its Current CPC Class code?
2. Use the Classification Search feature of Espacenet to identify one Cooperative Patent Classification group relevant to dog leashes. Which of its subgroups is most suited for a novel locking mechanism on a retractable leash? Still using

Espacenet, approximately how many patents and patent applications (combined) are classified in this subgroup?

3. Use AppFT to find pending patent applications from inventors in your city or town. What is the application number for the most recent application? What is the publication number?
4. Use Public PAIR to find the application files of patent application number 12/968683. Who was the examiner of this application? What is the status of the application? Which claims were initially rejected in the Non-Final Rejection dated January 21, 2014?
5. Use the USPTO's Assignment Search database to identify the assignee records for patent number 8929911. How many times has this patent been reassigned? Who was the original assignee? Who is the current assignee?
6. Use PRPS to look up information about patent application number 09/744033 (note that you must remove the / for this to work). In the case involving Samsung Electronics (the petitioner) and B. E. Technology (the patent owner), which party was PTAB's final decision in favor of, and why? Who were the presiding administrative judges?

Trademarks

1. Use TESS structured search to find live trademark registrations in your town or city. How many are there? For the most recent registration (at the top of the list), who is the owner? What goods and services are associated with this mark?
2. Use the Design Search Code Manual and TESS structured search to find a trademark that depicts an igloo. What design code did you use? How many live marks include depictions of igloos?
3. Use TESS to find the registration for serial number 77178417. What is the status of this trademark? From within the TESS record, click the TSDR button and look at the documents tab. Why was this trademark abandoned?
4. Use TTABVUE to find TTAB proceedings on registration number 86282348 filed by Windsor Quality Food Company. What is the case number? What is the status of the case? What is the plaintiff's objection to the trademark in this case?

Sources Mentioned in This Chapter

Legislation

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Trademark Act of 1946, P.L. 79-489, 60 Stat. 427.

US Patent & Trademark Office Sources

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- Archive of, www.uspto.gov/learning-and-resources/official-gazette/trademarks/trademark-official-gazette-tmog-archived-editions.
- Assignment Search, <http://assignment.uspto.gov>.
- CASSIS (optical discs, through 2011) with complete backfiles (available only at PTRCs).
- Certificates of Correction, www.uspto.gov/patents-application-process/patent-search/authority-files/certificates-correction.
- CPC (Cooperative Patent Classification) schema, www.uspto.gov/web/patents/classification/.
- Final Decisions, <http://e-foia.uspto.gov/Foia/TTABRreadingRoom.jsp>.
- Index of Patents Issued from the United States Patent and Trademark Office* (General Index of the *Official Gazette*).
- Interferences Portal (ACTS), <https://acts.uspto.gov/ifiling/>.
- Manual of (US) Classification, www.uspto.gov/web/patents/classification/selectnumwithtitle.htm.
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- Manual of Procedure, <http://tbmp.uspto.gov/RDMS/detail/manual/TBMP/current/tbmpd1e2.xml>.
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- Performance and Accountability Reports, www.uspto.gov/about-us/performance-and-planning/uspto-annual-reports.
- PubEAST (available only at PTRCs).
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- Public PAIR (Patent Application Information Retrieval), <http://portal.uspto.gov/pair/PublicPair>.
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- Subject-matter index of patents for inventions issued by the United States Patent office from 1790 to 1873, inclusive*, <http://quod.lib.umich.edu/cgi/t/text/text-idx?c=moa;idno=AGL4739.0001.001>.
- Trademark Assignment Query Menu, <http://assignments.uspto.gov/assignments/q?db=tm>.
- Trademark Design Search Code Manual, <http://tess2.uspto.gov/tmdb/dscm/index.htm>.
- Trademark Electronic Search System (TESS), www.uspto.gov/trademarks-application-process/search-trademark-database.

Trademark Law: Rules of Practice & Federal Statute, www.uspto.gov/trademark/laws-regulations.
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 Trademark Status & Document Retrieval (TSDR), <http://tsdr.uspto.gov>.
 Trademark Trial and Appeal Board, www.uspto.gov/trademarks-application-process/trademark-trial-and-appeal-board-ttab.
 TTABVUE Inquiry System, <http://ttabvue.uspto.gov/ttabvue/>.
 United States Patent and Trademark Office (USPTO), www.uspto.gov.

Other Sources

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