UNITED STATES PATENT AND TRADEMARK OFFICE







INVENTION-CON 2017

The Place for Inventors, Makers, & Entrepreneurs

USPTO's Inventors Conference · August 11-12 · Alexandria, VA



How to Search Your Invention

Presented By: Nick Jensen Robin Jackson



Overview

- Prior art what it is and why search for it
- Resources for searching
- Search strategies
- Cooperative Patent Classification (CPC)
- Send your questions to: <u>inventorinfochat@uspto.gov</u>



What is Prior Art?

Relevant Information (or "Art") in the public domain that qualifies under the statute as available as evidence regarding patentability of the claimed invention. Examples include:

- U.S. Patents and published patent applications;
- Foreign Patents and published patent applications;
- Journal and magazine articles;
- Books, manuals, and catalogs;
- Websites and databases;
- Conference disclosures
- Other types of public disclosures



Why Perform a Prior Art Search?

Ensure you do not waste time and money on an unpatentable invention



- Initial filing fees
- Patent prosecution fees
- Helps with claim drafting: Allows you to draft claims around prior art
 - Avoid submitting an application claiming something already described in a patent



Why Perform a Prior Art Search?

- Avoid infringement of existing patents
 - Infringement or "freedom to operate" search
- Hone your business plan
 - Identify potential competitors
 - Identify potential customers or licensees
- Assists with preparation to discuss your ideas with a registered patent attorney or patent agent



When should you search?

Search may be an ongoing process, not necessarily a single point in time.

- During development of your idea
- Prior to filing a provisional application
- Prior to filing a nonprovisional application

https://www.uspto.gov/patents-application-process/inventor-info-chat



Where can you search?

USPTO Resources

- PubEAST and PubWEST
 - Located at USPTO and PTRC facilities
 - https://www.uspto.gov/learning-andresources/support-centers/patent-and-trademarkresource-centers-ptrc/ptrc-locations
- Patent Full-text and image database (PatFT)
- Published Application Full-Text and Image Database (AppFT)



Where can you search?

USPTO Resources

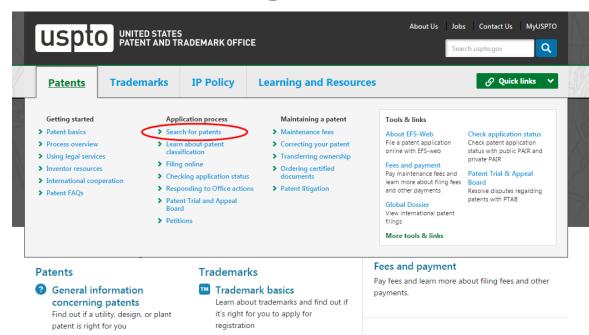
- Patent Application Image Retrieval (PAIR)
 - Complete prosecution history of patents and published applications
- Patent Assignment Database
 - USPTO record of patent ownership
- Global Dossier
 - Patent family and prosecution history
 - Links to these sites are found here:

www.uspto.gov/patents/process/search/



www.USPTO.gov

- Web Based Tutorial on Searching
- Seven Step Strategy
- Links to Resources
- Patent and Patent Application Databases



https://www.uspto.gov/patents-application-process/search-patents



Where can you search?

Online Resources - Foreign

- J-PlatPat Japanese Patent Office (JPO)
- PATENTSCOPE World Intellectual Property Organization (WIPO)
- Korean Intellectual Property Rights Information Service (KIPRIS)
- esp@cenet European Patent Office (EPO)
- State Intellectual Property Office (SIPO) China
- Other countries including Canada, Germany, Taiwan

Links to these sites are found here:

www.uspto.gov/patents/process/search/



Where can you search?

Additional Non-USPTO Resources

- Google Patent Search™ service
 - https://patents.google.com/
- Any web-based search engine
 - www.archive.org
 - Wayback Machine will show older cached versions of the webpage URL
- Think outside the box
 - Video websites
 - Magazines, newspapers, other publications
 - Scientific and/or technical journals
 - Visit stores that may sell similar items
- Private Patent Search Firms:
 - Pay for a professional searcher to perform a prior art search



What are Patent and Trademark Resource Centers (PTRCs)?

PTRCs are a nationwide network of public, state, and academic libraries designated by the USPTO to support the public with trademark and patent assistance. There are 85 resource centers in 49 states, the District of Columbia and Puerto Rico.

- PTRCs include:
 - Patent Based tools such as Web-based Examiner Search Tool (WEST) and the Examiner Automated Search Tool (EAST)



What are Patent and Trademark Resource Centers (PTRCs)?

- PTRCs include:
 - Trademark search tools such as X-Search
 - Official Gazettes
 - Annual Indexes (of Inventors)
 - The USPTO web site and additional search aids in various formats
- What information is available?
 - The Manual of Classification and its subject matter index



What are Patent and Trademark Resource Centers (PTRCs)?

- What information is available?
 - Full document text may be searched on U.S. patents issued since 1971 and Optical Character Recognition (OCR) text from 1920 to 1970. U.S. patent images from 1790 to the present may be retrieved for viewing or printing.
 - Some foreign patent documents
 - Patent assignment records of transactions affecting the ownership of patents
 - Pending, registered, and dead trademarks



How Can PTRC Staff Help?

- PTRC library staff are information experts trained on how to use search tools to access patent and trademark information. They provide the human touch to help you find the information you need to protect your intellectual property.
- PTRC library staff can:
 - Provide access to resources such as PubEAST and PubWEST, examiner-based search systems
 - Direct you to information and explain the application process and fee schedule
 - Demonstrate how to use search tools to conduct a patent or trademark search
 - Show you a directory of local patent attorneys who are licensed to practice before the USPTO

How Can PTRC Staff Help?

- PTRC library staff can:
 - Offer classes on intellectual property (varies by location)
 - Offer assistance on how to do historical research patents and trademarks
 - Show you how to track current research by company or nonprofit
 - Help you find assignee information and much more.
- PTRC library staff cannot:
 - Provide legal advice



The Alexandria Public Search Facility

The United States Patent and Trademark Office (USPTO) Public Search
Facility located in Alexandria, VA provides public access to patent and
trademark information in a variety of formats including on-line, microfilm,
and print. Trained staff are available to assist public users.

Hours:

 The USPTO Public Search Facility in Alexandria, VA is open Monday to Friday 8 a.m. to 8 p.m. (Closed weekends and Federal Holidays). Research assistance is offered between the hours of 8 a.m. to 8 p.m., Monday through Friday.

Phone:

• Local: (571) 272-3275

Additional Information:

 https://www.uspto.gov/learning-and-resources/support-centers/patentand-trademark-resource-centers-ptrc/ptrc-basic

USPTO Regional Office Resources



USPTO Regional Offices also have public search resources available. To learn mor about each regional office please visit:

https://www.uspto.gov/about-us/uspto-office-locations



Search Strategies

Create a problem / solution statement of your invention

- Anticipate future developments
- Be more generalized than one specific embodiment of the idea for your search
 - You want to make sure future competitor products cannot change a minor aspect of your invention and avoid infringing your patent
- Provide a basis for your patent claims (the legal boundaries of your patent)
 - Important to think critically and produce an accurate problem solution statement
 - Once a patent search is performed, the problem solution statement can be modified
- Think of different examples of ways your invention could be used

Text Search Strategies

- Use synonyms or multiple versions or words
 - Not everyone calls a widget a widget
 - Frequently accepts British English spellings
 - Does not always catch misspellings
 - Acronyms
- Use truncation (e.g., tune or tuner or tuning)
- Use advanced search logic (e.g., "AND" or "OR" or "WITH")
- Constantly Evaluate Your Results
- Remember: Text Searching is an Iterative Process
 - Start with a "Big Net" and refine your results step-by-step



Classification Searching

- In general, a classification system is an arrangement of hierarchical categories used to organize "things" by their characteristics and relationships.
- Classification systems are very useful for sorting and searching large collections of information.
- Classification systems
 - Cooperative Patent Classification (CPC) schedule
 - Primary system used for Utility Patent Applications
 - US Patent Classification (USPC) schedule
 - Primary system used for Design Patent Applications
 - USPC is no longer updated for Utility Patent Applications



Cooperative Patent Classification (CPC)

What is CPC?

- An arrangement of categories by hierarchy used to organize inventions by their characteristics into common subject matter
- Joint partnership with the European Patent Office (EPO) to harmonize USPC and the European Classification system (ECLA)

How do I know where to search in CPC?

- You can use the statistical mapping tool on the Classification Search Page to get started if you are familiar with the previous USPC system
- Any electronic version of an issued US Patent or PGPub accessed via USPAT, EAST/WEST, or Google Patents will list the CPC classification of most published documents
- CPC symbols are also printed on the face of more recent US Patent and PGPub documents

CPC – (cont.)

The CPC is divided into 8 main areas, A-H

- A Human Necessities
 - Agriculture, Foodstuffs
 - Apparel (including footwear, hats, and jewelry), Furniture
 - Medical Devices and Hygiene, Sporting Goods
- B Performing Operations; Transporting
 - Separating, Mixing, Shaping, Printing
 - Transporting
 - Micro- and Nano-Technology
- C Chemistry and Metallurgy
- D Textiles and Paper
- E Fixed Constructions
 - Building
 - Drilling and Mining

- F Mechanical Engineering; Lighting; Heating;
 Weapons; Blasting; Engines or Pumps
- G Physics
 - Measuring and Testing, Optics, Photography
 - Controlling and Regulating; Computing, Calculating, Counting
 - Musical Instruments
 - Nuclear Physics, Nuclear Engineering
- H Electricity
 - Electric Elements, Electric Circuitry, Electric Communication Techniques
 - Generation, Conversion, Distribution of Electric Power



CPC – (cont.)

How to read a Classification Scheme

Balloon catheters ({A61M 25/0125 takes precedence; embolectomy A61B 17/22032 A61M 25/10 ; retractors A61B 17/02}; inflatable balloons for placing stents or stent-grafts A61F 2/958; { stomach balloons for treatment of obesity A61F 5/0003; oesophagal tubes A61J 15/00}) A61M 25/1002 (characterised by balloon shape (A61M 25/1006, A61M 25/1009 take precedence)} A61M 2025/1004 {Balloons with folds, e.g. folded or multifolded} A61M 25/1006 {Balloons formed between concentric tubes} A61M 25/1009 {Balloons anchored to a disc or plate} A61M 25/1011 {Multiple balloon catheters} A61M 2025/1013 {with concentrically mounted balloons, e.g. being independently inflatable} A61M 2025/1015 {having two or more independently movable balloons where the distance between the balloons can be adjusted, e.g. two balloon catheters concentric to each other forming an adjustable multiple balloon catheter system)

Why do a Classification Search?

- Can be very broad or very narrow
 - A61M 25/10—Balloon Catheters
 - A61M 25/1002—Characterized by Balloon Shape
 - A61M 25/1011—Multiple Balloon Catheters
- Group devices and methods with similar features
- Classification Scheme and Definitions can lead you to other areas of search



The CPC Classification Picture (CP)

 The set of CPC Allocations (i.e., all Inventive and Additional and combination set allocations) on a CPC document family is the CPC classification picture.

 Example of CPC CP on patent image and patent text from and the EAST and WEST search tools

Allocated after publication TYPE CPC

CPOI C 12 N 9/12 20130101

CPOI C 07 K 16/30 20130101

CPOI A 01 K 67/0278 20130101

CPOA C 12 Y 207/10002 20130101

CPOA C 07 K 2319/30 20130101

CPOA A 61 K 2039/505 20130101

CPC-ISSUED:

CPC-CURRENT:

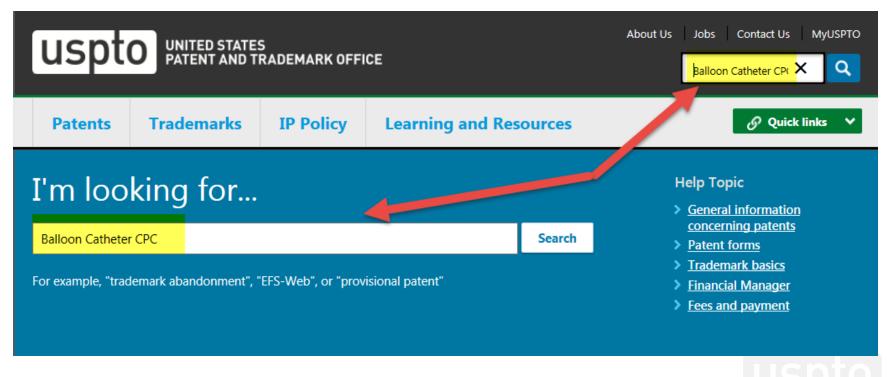
TYPE CPC DATE CPCI C 12 N 9/12 20130101 CPCIC 07 K 16/30 20130101 20130101 CPCI A 01 K 67/0278 CPCA A 01 K 2227/105 20130101 CPCAC 07 K 2319/30 20130101 20130101 CPCA A 61 K 2039/505 CPCA A 01 K 2267/01 20130101 CPCAC 12 Y 207/10002 20130101

US 2015/0047065 image rendition

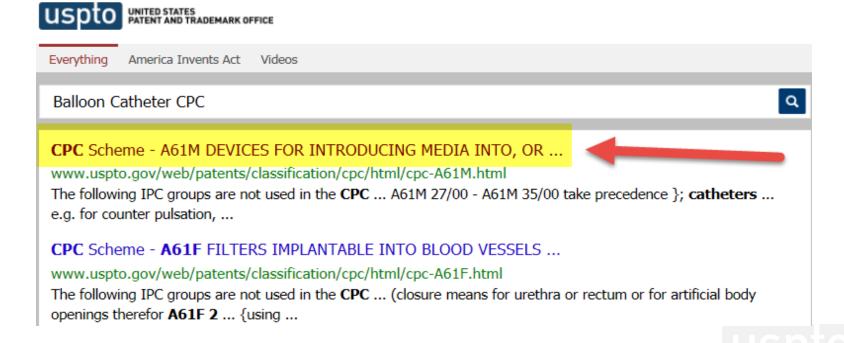
US 2015/0047065 HTML rendition

Text Searching the CPC Scheme

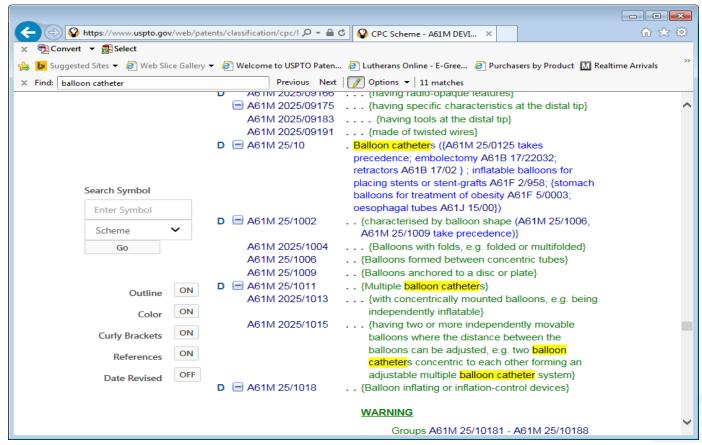
https://www.uspto.gov/



CPC Scheme Search Results for"Balloon Catheter"



Use CTRL-F to search within the page



USPTO CPC Classification Search

http://www.uspto.gov/web/patents/classification/

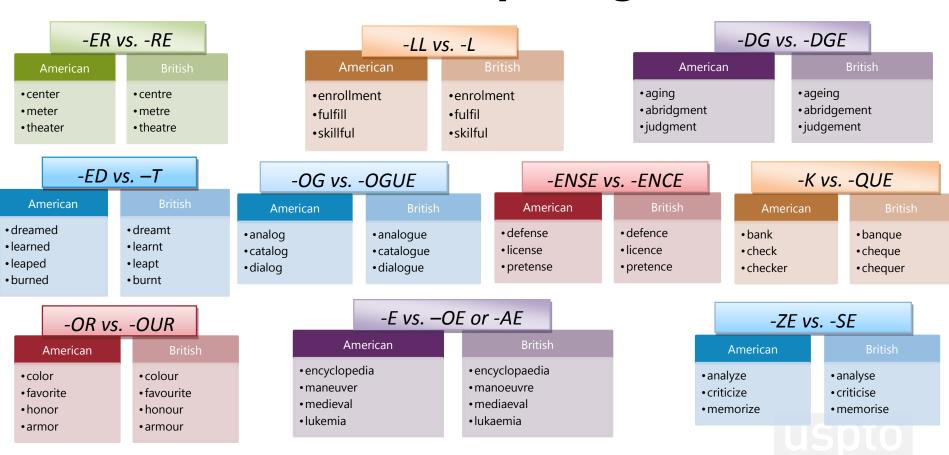
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	Access Classification Information Select Classification System Enter Classification symbols Select Conte	m: © CPC O USPC	×	



CPC Scheme Uses British English

American	British	
Gas	Petrol	
Truck	Lorry	
Bathroom	Loo	
Line	Queue	
Stove	Hob	
Napkins	Serviettes	
Hood	Bonnet	
Trunk	Boot	

American vs. British Spelling Differences



Invention-Con 2017
How to Search and use the Public Search Facilities

CPC Resources

- CPC General Website:
 - http://www.CPCinfo.org
- Link to USPTO Classification Homepage:
 - http://www.uspto.gov/web/patents/classification/
- Guide to the CPC:
 - http://www.cooperativepatentclassification.org/publications/GuideToTheCPC.pdf
- Espacenet the EPO's public search tool:
 - http://worldwide.espacenet.com/
- CPC Online Resources and Training Materials
 - http://www.cooperativepatentclassification.org/Training.html
- USPTO PatFT and AppFT
 - http://patft.uspto.gov/





Thank You!



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