Conducting and Analyzing Patent Searches
Strategies for Validity, Patentability, Infringement, FTO and State-of-the-Art Searches

THURSDAY, APRIL 9, 2015

1pm Eastern    |    12pm Central   |   11am Mountain    |    10am Pacific

Today’s faculty features:

Thomas L. Irving, Partner, Finnegan Henderson Farabow Garrett & Dunner, Washington, D.C.
Kerry Flynn, Vice President, Chief IP Counsel, Vertex Pharmaceuticals, Boston
Cory C. Bell, Esq., Finnegan Henderson Farabow Garrett & Dunner, Boston
Jonathan E. Grant, Esq., Grant Patent Services, Silver Spring, Md.

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Overview: Conducting and Analyzing Searches

- What issues necessitate searches?
- What information does the attorney/agent need to provide to the searcher?
- Nuts and bolts of searching by Jonathan Grant.
- Analysis of search results.
Issues Necessitating Patent Searches

- Patenting process;

- Evaluating whether issued U.S. patents will stand up under the rigors of the AIA’s post-grant proceedings;
  - Patentee
  - Petitioner

- Evaluating whether issued patent claims can be invalidated in a U.S. district court or International Trade Commission investigation;

- Freedom to operate; and

- Due diligence related to patent licensing or patent acquisition opportunities.
Planning the Search: What information does the attorney/agent need to provide to the searcher?

- Patenting process
  - Provide good summary of your disclosure;
  - Provide draft patent claims;
  - Provide prior art you are aware of (?); and
  - Inventor(s) name(s).
Planning the Search: What information does the attorney/agent need to provide to the searcher?

**Patenting process (con’t)**

- Make sure searcher knows proper choice of law: pre-AIA and AIA prior art
  
  - For all claims with an effective filing date after March 15, 2013, the AIA FITF prior art standard applies.
    - §102(a)(1)/ §102(b)(1)
    - §102(a)(2)/ §102(b)(2)
    - §103 (state of the art just before the effective filing date)
  
  - For all claims with an effective filing date before March 16, 2013, the pre-AIA first inventor prior art standard applies.
    - §102(a)-(g)
    - §103 (state of the art just before the date of invention)
  
  - For patent/applications containing (or contained at any time) at least one claim with an effective filing date before March 16, 2013, AND at least one claim with an effective filing date after March 15, 2013, AIA FITF prior art standard applies AND pre-AIA §102(g).
Planning the Search: What information does the attorney/agent need to provide to the searcher?

- Evaluating whether issued U.S. patents will stand up under the rigors of the AIA’s post-grant proceedings.
  - Prior art that raises “substantial likelihood” that one or more claims are unpatentable under a “broadest reasonable interpretation,” no presumption of validity, and preponderance of evidence standard.
  - Direct search to begin at a time before the first priority application for potential priority chain breakers.
  - Make sure searcher knows proper choice of law: pre-AIA and AIA prior art.
Planning the Search: What information does the attorney/agent need to provide to the searcher?

- Evaluating whether issued patent claims can be invalidated in a U.S. district court or International Trade Commission investigation
  
  - Identify prior art that could be used against target patents in litigation.
  
  - Identify prior art that potentially invalidates one or more claims are invalid under a *Markman/Phillips* claim construction standard, presumption of validity, and clear and convincing evidence standard.
  
  - Direct search to begin at a time before the first priority application for potential priority chain breakers.
  
  - Make sure searcher knows proper choice of law: pre-AIA and AIA prior art.
Planning the Search: What information does the attorney/agent need to provide to the searcher?

- Freedom to operate.
  - Prior art that raises issue for either an AIA post-grant proceeding or district court litigation.
  - Identify patent roadblocks.
  - Identify potential competitors.
  - Seek out licensing or partnership opportunities.
    - Consider JRA possibilities under AIA (in place by effective filing date).
Planning the Search: What information does the attorney/agent need to provide to the searcher?

- Due diligence related to patent licensing or patent acquisition opportunities.
  - Freedom to operate
  - Scope/Validity/Patentability/Enforceability
  - Inventorship/Ownership/Transferability
THE WHO, WHAT WHERE, WHY, AND HOW OF PATENT SEARCHING

JONATHAN E. GRANT
2107 HOUNDS RUN PLACE
SILVER SPRING, MARYLAND 20906
Jgrant@grantpatents.com

Tel. (301) 603-9071
Cell: (301) 346-8714
FIVE PRINCIPAL REASONS FOR A PATENT SEARCH

A. Patent Prosecution
B. Third Party Prior Art
C. Post Grant Review
D. Ex Parte Reexaminations
E. Inter Parte Reexaminations
F. Federal Court Litigation
WHO SHOULD PERFORM A PATENT SEARCH?

- Someone who:
  - Has years of experience.
  - Has a thorough understanding of infringement and validity.
  - Has a thorough understanding of anticipation and obviousness.
  - Keeps abreast of the changing law
  - Knows where to search
  - Has a technical background.
  - Is experienced and knowledgeable about searching.
HOW TO PERFORM A PRIOR ART SEARCH

PATENTS:

– A) Key Word Searching

– B) Class/Subclass Searching on the East System in the Search Room of the USPTO:

  i) Published US Patent Applications
  ii) US Issued Patents
  iii) Foreign patents and patent publications
## COOPERATIVE PATENT CLASSIFICATION SYSTEM

| A. | HUMAN NECESSITIES                          |
| B. | PERFORMING OPERATIONS; TRANSPORTING       |
| C. | CHEMISTRY; METALLURGY                     |
| D. | TEXTILES; PAPER                           |
| E. | FIXED CONSTRUCTIONS                       |
| F. | MECHANICAL ENGINEERING                    |
| G. | PHYSICS                                   |
| H. | ELECTRICITY                               |

GRANT PATENT SERVICES
USPTO SEARCHROOM COLLECTION

- US PUBLISHED PATENT APPLICATIONS
- US PATENTS
- ALL PCT PATENTS AND PATENT PUBLICATIONS
- ALL JPO PATENTS AND PATENT PUBLICATIONS
- ALL EPO PATENTS AND PATENT PUBLICATIONS
- DERWENT ABSTRACTS OF FOREIGN PATENTS
- OTHER INDIVIDUAL COUNTRY COLLECTIONS FROM AUTRIA, KOREA, HUNGARY, SWITZERLAND, BRAZIL, AND OTHERS.
- CHINA IS ONLINE ON THE USPTO WEBSITE, BUT NOT AVAILABLE ON THE SEARCH ROOM COMPUTERS
SAMPLING OF OTHER COUNTRY DATABASES AVAILABLE ONLINE

- AUSTRALIA
- CANADA
- HONG KONG
- INDIA
- ISRAEL
- KOREA
- UK
- NZ

GRANT PATENT SERVICES
SEARCHING PUBLICATIONS

- DIALOG
- MAGAZINE WEBSITES WITH ARCHIVES
- DISSERTATIONS.COM
- GOOGLE AND OTHER DATABASES
- DISSERTATION.COM
SPECIALTY SEARCHING

- ELECTRONIC
  - IEEE PUBLICATIONS

- CHEMISTRY (CHEMICAL STRUCTURES)
  - CAS (CHEMICAL ABSTRACT SEARCH)
  - PUBCHEM (NATIONAL LIBRARY OF MEDICINE)
  - CHEMSPIDER.COM
  - CHEMNAGIVATOR.COM

- DNA SEQUENCES
  - BLAST (BASIC ALIGNMENT SEARCH TOOL)
  - BIOINFORMATICS.ORG
PRINCIPAL TYPES OF SEARCHES

- OBVIOUSNESS/PATENTABILITY SEARCH
- STATE OF THE ART SEARCH
- INFRINGEMENT SEARCH
- VALIDITY/FREEDOM TO OPERATE SEARCH
THANK YOU!

Jonathan E. Grant
Grant Patent Services
2107 Hounds Run Place
Silver Spring, Maryland 20906
Tel: (301) 603-9071
Cell: (301) 346-8714
www.grantpatents.com
Analysis of Search Results
Analyzing the Search: Patenting Process

- Analysis of patentability search results.
  - Novelty;
  - Nonobviousness.
Analyzing the Search: Withstand IPRs/PGRs

- Evaluating whether issued U.S. patents will stand up under the rigors of the AIA’s post-grant proceedings;
  - Patentee
    - Will the claims under the broadest reasonable interpretation stand up against the prior art found in the search?
      - Anticipation
      - Nonobviousness
      - Consider whether §112 chain can be broken to endow earlier documentation with prior art status.
        » Either pre-AIA §102(b) or AIA §102(a)(1) more than one year before effective filing date is preferred statutory basis.
      - §112 issues for PGRs.
    - If there is a problem, can a narrower claim could be presented?
      - Ex parte exam?
      - Reissue?
      - Pending child application?
Analyzing the Search: Withstand IPRs/PGRs (con’t)

- Evaluating whether issued U.S. patents will stand up under the rigors of the AIA’s post-grant proceedings.

  – Petitioner

  - Other side of the coin – substantial likelihood of unpatentability.
    
    - At present, IPR has been a petitioner-friendly forum.
    
    - Even if cannot knock out all claims, can you knock out enough claims to eliminate any FTO problem for the Petitioner?
Analyzing the Search: Withstand IPRs/PGRs (con’t)


5 PGRs filed so far; 2 settled prior to institution decision, 2 institution decision pending.
District Litigation Filings Dropping as IPR Petition Filings Rising

Source: Courtlink. First time since 2008 that first-instance patent litigation filings dropped. 5355 cases in 2014 represents a 17% decrease in the number of district court patent infringement cases from 2013.
Analyzing the Search: Withstand IPRs/PGRs (con’t)
Petition Grant Rate is High!

Institution

- Granted, 69%
  - 1136/1641
- Denied, 24%
  - 392/1641
- Joinder, 7%
  - 113/392

Granted + joinder = 76%

Analyzing the Search: Withstand IPRs/PGRs (con’t)
Cancellation Rate in IPRs is High!

As of Feb. 1, 2015. Source: Finnegan research, with thanks to Dan Klodowski, Kai Rajan, Elliot Cook, and Joe Schaffner. Analysis: 3072 claims at issue; 196 cases.

“mixed outcome” means some instituted claims survived, some did not.
Finnegan research of 57 IPRs in which substitute claims were considered; allowed 4 times (7%).
Analyzing the Search: Withstand IPRs/PGRs (con’t)

Reminder of Burdens Unfavorable to Patent Owner

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>PGR/CBM PGR/IPR</th>
<th>DISTRICT COURT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burden of proof</td>
<td>Preponderance of the evidence</td>
<td>Clear and convincing evidence</td>
</tr>
<tr>
<td>Presumption of Validity?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Claim construction</td>
<td>Broadest reasonable Interpretation (BRI)*</td>
<td>Phillips/Markman framework: analyze claims, specification, and prosecution history to determine how claims would be understood by one of ordinary skill in the art</td>
</tr>
<tr>
<td>Decision maker</td>
<td>Patent Trial and Appeal Board (APJs)</td>
<td>District court judge or jury</td>
</tr>
</tbody>
</table>

* and no attempt to preserve patentability; also not bound to follow district court’s construction, if it exists.
Analyzing the Search: Withstand IPRs/PGRs (con’t)

Tactical Advantages Favoring the Challenger

- Challenger generally has time to plan attack, secure experts, and prepare detailed and compelling expert written reports.
  - IPRs can generally be filed at any time up until the patent expires.
    - Unlimited time if patent not in litigation;
    - 12 months from service of infringement complaint if patent in litigation.
  - PGR petitioners have from publication of patent application until 9 months post-issuance.
  - Patent Owner has only three months to file POPR and cannot "present new testimony evidence beyond that already of record[.]"
  - Once instituted, Patent Owner can bring in evidence but is already behind the eight-ball.
- Strict limits on discovery.
- Petitioner estoppel not discouraging filings; Patent Owner estoppel is harsh.
Analyzing the Search: Guarding Against Litigation

- Evaluating whether issued patent claims can be invalidated in a U.S. district court or International Trade Commission investigation.
  - Consider results under standard of *Markman/Phillips* claim construction, clear and convincing evidence of invalidity, and presumption of validity.

  - Plethora of CCPA/Federal Circuit case law to guide the analysis with respect to search results uncovered.

  - Consider noninfringement, obviousness-type double patenting, substantive §112 indefiniteness/written description/enablement attacks.
Analyzing the Search: Clearing the Path

- Freedom to operate
  - Is there a way around prior art that raises issue for either an AIA post-grant proceeding or district court litigation?
  - Is there a way to clear potential competitors?
    - Are there licensing or partnership opportunities?
      - Consider JRA possibilities under AIA (in place by effective filing date).
  - If there is an issue that can be resolved by:
    - Ex parte exam?
    - Reissue?
    - Pending child application?
Analyzing the Search: Clearing the Path (con’t)

- Identify and characterize material IP issues for each product.
- Determine scope of protection by closest competitor IP.
- Evaluate, manage, and reduce risks.
- Take appropriate actions at the legal, business, and R&D levels.
- Deal with small problems before they grow big and with big problems immediately.
Analyzing the Search: Clearing the Path (con’t)

- Does the search result affect your monetization program:
  - Is it truly infringed (claim construction, prosecution disclaimers)?
  - Design-around possibilities?
  - Is patent valid and enforceable?
  - Was ID’d patent known to company seeking to monetize?
    - Does the company have a license or has it obtained an opinion?
  - Who is patentee (major competitor v. non-player in market)?
    - Patentee’s enforcement history (i.e. license, litigate, etc.)
  - Potential damages/injunction relief?
  - Can patent be licensed or purchased?
  - What if top art is an Application?
    - Check foreign file histories (may be farther along)
  - Does company have patent leverage?
Analyzing the Search: Due Diligence

- Due diligence related to patent licensing or patent acquisition opportunities.
  - Evaluate strength of target patents.
    - Analyze search results for FTO, inventorship/ownership, and invalidity/unpatentability.
  - If search results tend to be negative, consider reduction in acquisition price.
Analyzing the Search: Due Diligence

For a deal involving IP, you are:

– Evaluating what is being sold (strengths and weaknesses);
– Assessing and managing risks;
– Identifying value and exposing overvalued/undervalued assets; and
– Providing information to those responsible for valuing the IP, which could impact the transaction in terms of both price and structure.
Analyzing the Search: Due Diligence
Freedom to Operate

- For each patent identified during FTO search, compare claims to:
  - Products/services to be acquired/licensed
  - Future products/services

- Questions for target:
  - Any technical clarifications
  - Did they know of relevant patent? Opinions?
  - Licenses to relevant patent?
Analyzing the Search: Due Diligence
Freedom to Operate (con’t)

- Assess Risk Posed by Identified 3rd Party IP
  - How easy is it for competitor to identify potential infringement?
    - Obvious feature of product versus step in secret manufacturing process
  - How clear is the infringement of the construed claims?
    - Literal infringement
    - Doctrine of equivalents
  - Who is patent owner?
    - Major competitor versus non-player in market
    - Patent enforcement history (litigation, granting licenses)
    - Small start-up versus large established company
  - What is duration of potential infringement?
    - Patent term versus launch or start date of your infringing product or activity
  - What are expected costs of infringement?
    - Legal costs for litigation (including damages), settlement or licensing
Analyzing the Search: Due Diligence Scope/Validity/Enforceability

- Will the patent cover the product?
- Are the patents valid and enforceable?

- Analyze search results:
  - Assess scope
  - Assess prior art
  - Assess disclosure
Issues to look for

- Narrow claims:
  - May not cover products
  - Vulnerable to design arounds

- Broad claims:
  - Potential prior-art issues
  - Enablement issues

- Ambiguous claims:
  - Indefiniteness
  - Noninfringement positions
Now that you understand the scope of the target claims, compare the claims to the current and future products/services and likely design-arounds

- Identify any additional information needed

Assess who will infringe the claims

- A single entity?
- A competitor or a customer?
- Would you even know?
Analyzing the Search: Due Diligence
Scope/Validity/Enforceability (con’t)

- Prior art known to those with duty of candor
- Failure to cite related applications
- Gaps in citation of prior art between U.S. and foreign applications
- Declarations or data submitted in prosecution
- Inconsistent materials/arguments in co-pending applications, other proceedings, or litigations
- Examples in past tense
Analyzing the Search: Due Diligence  
Scope/Validity/Enforceability (con’t)

- Has anyone else weighed in?
  - Has anyone challenged validity/patentability/enforceability?
    - Check prior court rulings
    - Settlement agreements
    - Administrative proceedings
    - Existence of opinions
• Watch for issues under 35 U.S.C. §262:

“In the absence of any agreement to the contrary, each of the joint owners of a patent may make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.”
Analyzing the Search: Due Diligence
Can You Make Any Potential Problems Go Away?

- Administrative proceedings at USPTO
  - Pre-issuance submission
  - Certificate of Correction
  - Continuation application
  - Narrowing reissue
  - Broadening reissue
  - Ex parte reexamination
  - Inter partes review (IPR)
  - Post-grant review

- Litigation?
The End

Thank you!

Kerry Flynn
Kerry_Flynn@vrtx.com

Jonathan E. Grant
301.603.9071
jgrant@grantpatents.com

Tom Irving
202.408.4082
tom.irving@finnegan.com

Cory Bell
617.646.1641
cory.bell@finnegan.com