October 7, 2015

Patent Office Litigation:
What You Need to Know

Pittsburgh, PA

Presenters:  Mark Leslie, Partner
            Mark Knedeisen, Partner
            Chris Verdini, Partner
TOPICS

- Overview of procedures
- Statistics – What is going on out there?
- The PTO Trial Process
- Concurrent Litigation Issues and Strategies
- Case Law Update
- Ways to protect your Patent Portfolio
- Possible Legal and Regulatory Reforms
- Interesting Developments
POST-GRANT OPPOSITION PROCEEDINGS

- Proceeding at Patent Office to invalidate an issued patent
- Alternative to litigation
  - Less expensive than litigation
  - Fewer grounds to invalidate patent than in litigation
- Often requested early in litigation, with litigation then suspended until reexamination is concluded
PRE-AIA POST GRANT OPPOSITION PROCEEDINGS

- Ex parte reexamination
  - Requestor does not participate other than filing request
  - Implemented in 1981
  - All claims confirmed – 21%; All claims canceled – 11%
  - About 750-800 filed per year
  - Average pendency 28 months

- Inter partes reexamination
  - Requestor is permitted to participate throughout
  - Implemented in 1999
  - All claims confirmed – 21%; All claims canceled – 42%
  - Growing popular; 530 filed in 2012
  - Average pendency 40 months
PRE-AIA POST GRANT OPPOSITION PROCEEDINGS

- Ex parte reexamination
  - Requestor does not participate
- Inter partes reexamination
  - Requestor is permitted to participate
Post-AIA POST GRANT OPPOSITION PROCEEDINGS

- Ex parte reexamination
  - Requestor does not participate
- Inter partes reexamination
  - Requestor is permitted to participate
- Inter partes review (IPR)
- Post-grant review (PGR)
  - Only for patents subject to FITF
- Covered Business Method (CBM) Patent Review
<table>
<thead>
<tr>
<th>INTER PARTES REVIEW (IPR)</th>
<th>COVERED BUSINESS METHOD PATENT REVIEW (CBM)</th>
<th>POST GRANT REVIEW (PGR)</th>
</tr>
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<tbody>
<tr>
<td>Initiated by third party</td>
<td>Initiated by third party</td>
<td>Initiated by third party</td>
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<tr>
<td>Challenge under §§ 102, 103 based on printed publications</td>
<td>Challenge under §§ 101, 102, 103 and 112</td>
<td>Challenge under §§ 101, 102, 103 and 112</td>
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<tr>
<td>• After for PGR period for FTF patents</td>
<td>• After for PGR period for FTF patents</td>
<td>In first 9 months of FTF patents only</td>
</tr>
<tr>
<td>• Any time for pre-FTF patents</td>
<td>• Any time for pre-FTF patents</td>
<td></td>
</tr>
<tr>
<td>- Within 1 yr of service of complaint</td>
<td>- Can only be filed after being sue or receiving C&amp;D letter</td>
<td></td>
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Note: FTF stands for Final Tribunal for Filing.
WHAT MAKES NEW PROCEDURES DIFFERENT?

- Discovery
  - Generally limited to deposing experts
- Speed
  - 18 months from filing of petition to final decision
- Settlement permitted (some times)
- High kill rate
  - 85% of IPR claims canceled or disclaimed when IPR instituted
  - 96% for CBMs
WHO IS FILING IPRS AND CBMS?

- Parties accused of patent infringement
- Market competitors
- Altruistic entities
- Market arbitragers
3832 Total AIA Petitions*

Cumulative from 09/16/2012

* as of August 31, 2015
Number of IPR Petitions Filed by Month*

Number of CBM Petitions Filed by Month*

Number of PGR Petitions Filed by Month*

Number of TOTAL Petitions Filed by Month*

* as of August 31, 2015
Number of AIA Petitions Filed by Fiscal Year by Type

- **PGR**
- **CBM**
- **IPR**

<table>
<thead>
<tr>
<th></th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015*</th>
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<tr>
<td>PGR</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>CBM</td>
<td>8</td>
<td>48</td>
<td>177</td>
<td>144</td>
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<tr>
<td>IPR</td>
<td>17</td>
<td>514</td>
<td>1310</td>
<td>1601</td>
</tr>
</tbody>
</table>

* as of August 31, 2015
1761 Total AIA Petitions in FY 15*
(Technology Breakdown)

- Electrical/Computer - TCs 2100, 2400, 2600, 2800 (62%)
- Mechanical/Business Method - TCs 3600, 3700 (24%)
- Chemical - TC 1700 (9%)
- Bio/Pharma - TC 1600 (5%)
- Design - TC 2900 (0%)

* as of August 31, 2015
* as of August 31, 2015
* as of August 31, 2015
IPR - Settlements

<table>
<thead>
<tr>
<th></th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settled Before Institution</td>
<td>20</td>
<td>106</td>
<td>268</td>
</tr>
<tr>
<td>Settled After Institution</td>
<td>18</td>
<td>104</td>
<td>178</td>
</tr>
</tbody>
</table>

* as of August 31, 2015

CBM - Settlements

<table>
<thead>
<tr>
<th></th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settled Before Institution</td>
<td>3</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Settled After Institution</td>
<td>0</td>
<td>21</td>
<td>32</td>
</tr>
</tbody>
</table>
Disposition of IPR Petitions Completed to Date*

1901 Total Petitions

1012 Trials Not Instituted
- Petition Denied/ Settled/ Dismissed

889 Trials Instituted

407 Trials Terminated During Trial
- Settled/Dismissed/ Request for Adverse Judgment

482 Trials Completed
- Reached Final Written Decisions

327 Trials
- All Instituted Claims Unpatentable (17% of Total Petitions, 37% of Trials Instituted, 68% of Final Written Decisions)

82 Trials
- Some Instituted Claims Unpatentable (4% of Total Petitions, 9% of Trials Instituted, 17% of Final Written Decisions)

73 Trials
- No Instituted Claims Unpatentable (4% of Total Petitions, 8% of Trials Instituted, 15% of Final Written Decisions)

* as of August 31, 2015
Disposition of CBM Petitions Completed to Date*

114 Trials Not Instituted
Petition Denied/Settled/Dismissed

220 Total Petitions

106 Trials Instituted

48 Terminated During Trial
Settled/Dismissed/Request for Adverse Judgment

58 Trials Completed
Reached Final Written Decisions

46 Trials
All Instituted Claims Unpatentable (21% of Total Petitions, 43% of Trials Instituted, 79% of Final Written Decisions)

10 Trials
Some Instituted Claims Unpatentable (5% of Total Petitions, 9% of Trials Instituted, 17% of Final Written Decisions)

2 Trials
No Instituted Claims Unpatentable (1% of Total Petitions, 2% of Trials Instituted, 4% of Final Written Decisions)

* as of August 31, 2015
IPR Petitions Completed to Date*

- 1155 Claims Found Patentable by PTAB in Final Written Decision
- 4336 Claims Remaining Patentable (Not Subject to Final Written Decision)
- 1548 Claims Cancelled or Disclaimed by Patent Owner
- 16984 Claims Challenged but Not Instituted
- 30409 Claims Not Challenged

Total Number of Claims Available to be Challenged within 1901 Petitions: 59546
Claims Challenged: 29137
Claims Instituted: 12153
Claims Found Unpatentable by PTAB in Final Written Decision: 5114

* as of August 31, 2015
CBM Petitions Completed to Date*

- 7906 Total Number of Claims Available to be Challenged within 220 Petitions
- 4477 Claims Challenged
- 2012 Claims Instituted
- 1029 Claims Found Unpatentable by PTAB in Final Written Decision
- 3429 Claims Not Challenged
- 2465 Claims Challenged but Not Instituted
- 834 Claims Remaining Patentable (Not Subject to Final Written Decision)
- 46 Claims Found Patentable by PTAB in Final Written Decision

* as of August 31, 2015
IPR Past – Statistics – Monthly Filings

Data through August 31, 2015
IPR Past – Statistics – Denial Percentage by Type

Data from 10/1/2014 to 8/31/2015

- IPR
- CBM
- PGR

FY2013  FY2014  FY2015

All PGRs that have decisions have been instituted
# IPR Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>Timeframes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petition Filed</td>
<td>3 months</td>
</tr>
<tr>
<td>Patent Owner Preliminary Response</td>
<td>3 months</td>
</tr>
<tr>
<td>Decision on Petition</td>
<td>3 months</td>
</tr>
<tr>
<td>Patent Owner Response &amp; Motion to Amend Claims</td>
<td>3 months</td>
</tr>
<tr>
<td>Petitioner Reply to Patent Owner Resp. &amp; Opp’n to Amendment</td>
<td>1 months</td>
</tr>
<tr>
<td>Patent Owner Reply to Opp’n to Amendment</td>
<td>Hearing Set on Request</td>
</tr>
<tr>
<td>Oral Hearing</td>
<td>Final Written Decision</td>
</tr>
</tbody>
</table>

**Pre-Trial Lasts About 6 Months**

**Trial Lasts No More Than 12 Months After A Favorable Decision By The Board**
STEPS TO SUCCESS

- Petition
  - Identify real party-in-interest
  - Adhere to procedural requirements
  - Thorough (but concise), factually supported petition
  - Focused argument that explains in detail exactly why the patent is invalid
  - Present entire case – cannot risk denial
  - Don’t use kitchen sink approach
STEPS TO SUCCESS

- Patent Owner Preliminary Response
  - Key consideration is whether to file preliminary response
    - Best chance to win is non-institution, but:
    - Expert evidence from PO currently not permitted
    - Response previews defenses
  - Attack deficiencies in petition and expert evidence
    - Unsupported conclusions?
    - Expert used legally improper methodology?
    - Technical requirements
    - Real party in interest
STEPS TO SUCCESS

- Experts
  - Petitions should consider early expert involvement
  - Have to be able withstand cross-examination
  - Unlike juries, PTAB judge are not dazzled by credentials of expert
STEPS TO SUCCESS

- Expert Depositions
  - Unlike litigation depositions because really like trial testimony
  - Don’t let expert fill-in gaps in expert statement
  - But focus on weak substantive issues
  - Redirect is very important
  - Objections are important
  - No lawyer consultation during cross-examination
  - Afterwards, file “observations”
STEPS TO SUCCESS

- Oral Argument
  - Similar to summary judgment argument
  - Usually 45 to 60 minutes per side
  - PTAB judges are very prepared, knowledgeable and engaged
  - Counsel has to be prepared for granular technical questions
  - Live testimony usually not permitted
  - Demonstratives permitted, but must get pre-approval
CONCURRENT LITIGATION ISSUES AND STRATEGIES

LIMITS ON FILING

- IPR
  - No standing requirement
  - No general time limit for Pre-AIA patents (before 3/16/13)
  - AIA patents: later of (1) nine months after issue or reissue date or (2) termination of PGR
  - No IPR if DJ Action challenging validity
  - No IPR if more than one year after served with complaint alleging infringement of challenged patent
    - Exception for Motion to Join
CONCURRENT LITIGATION ISSUES AND STRATEGIES

LIMITS ON FILING

- CBM
  - Pre-AIA patents: charged with infringing the patent and before 9/16/20
  - AIA patents: later of (1) nine months after issue or reissue date or (2) termination of PGR; charged with infringing the patent; and before 9/16/20
  - No IPR if DJ Action challenging validity
CONCURRENT LITIGATION ISSUES AND STRATEGIES

LIMITS ON FILING

- PGR
  - Pre-AIA patents: Not permitted
  - AIA patents: Nine months after issue or reissue date
  - No IPR if DJ Action challenging validity
CONCURRENT LITIGATION ISSUES AND STRATEGIES

REAL PARTIES IN INTEREST

- IPR, CBM and PGR all require identification of each “Real Party in Interest”
  - Not defined
  - “No ‘bright-line’ test”
  - Important to standing determination
    - Apple/RPX – Circumvent time limitations of IPR
  - Important to estoppel determination
    - Joint Defense Groups
CONCURRENT LITIGATION ISSUES AND STRATEGIES

ESTOPPEL

- Must reach final written decision to apply
  - BUT not until appeal rights exhausted
- Applies to real parties in interest and privies
- Patent Owner
  - In all three types of proceedings, estopped from prosecuting any other patentably indistinct claims
CONCURRENT LITIGATION ISSUES AND STRATEGIES

ESTOPPEL

- Petitioner estoppel
  - IPR and PGR
    - Any ground “raised or reasonably could have been raised”
    - Dist. Ct., ITC and PTO
  - CBM
    - Litigation = any ground raised
    - PTO proceeding = any ground raised or reasonably could have been raised
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Available bases
- Trier of fact
- Burden of proof
- District court litigation
- Offensive IPR
- Staffing and potential costs
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Available bases
  - IPRs – Limited to patents and publications and anticipation and obviousness
  - CBMs and PGRs – Not so limited

- Trier of fact
  - Three administrative law judges
  - Technical background
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Burden of proof
  - No presumption of validity
  - Preponderance of the evidence standard

- Pending district court litigation
  - Nature of non-infringement and invalidity positions?
    - Technical vs. jury-friendly
    - Other defenses

- Claim construction
  - Broadest reasonable interpretation
  - Tension with positions in litigation
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Pending district court litigation
  - Likelihood of stay
    - Typical factors
      - Prejudice
      - Stage of Litigation
      - Simplification
  - Current Statistics
    - Appx. 70% success in whole or in part
      - Likelihood of success increases after institution
      - Some outlier courts (E.D. Tex.)
      - Scope of estoppel/Multiple defendants
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Offensive IPR Before Litigation
  - NPE’s
    - Customers being sued
    - Settlement pressure if multi-defendant enforcement
  - Competitor in product development
    - Very limited discovery
    - Usually depositions of only those who submit declarations
    - Defense against preliminary injunction
    - Shape non-infringement arguments
  - Can design around if unsuccessful
    - BUT must consider continuation applications
CONCURRENT LITIGATION ISSUES AND STRATEGIES

CONSIDERATIONS BEFORE FILING

- Staffing and potential costs
  - Legal team of prosecutors and litigators
  - Expert declarant
    - Different expert for litigation?
- Base filing fee
  - IPR = $9,000 (+ $200 for claims >20)
  - CBM and PGR = $12,000 (+ $250 for claims >20)
- Post-institution fee
  - IPR = $14,000 (+ $400 for claims >15)
  - CBM and PGR = $18,000 (+ $550 for claims >15)
CONCURRENT LITIGATION ISSUES AND STRATEGIES

WHAT ABOUT SETTLEMENTS?

- Terminating IPR proceeding
  - Joint motion to terminate
  - Mandatory termination with respect to petitioner
  - Discretionary termination with respect to patent owner
  - Board may still issue a final written decision

- Confidentiality

- What happens in the litigation?
  - Litigation stay removed
  - Co-defendants lose advantage
## IPR vs District Court
(Petitioner’s Perspective)

<table>
<thead>
<tr>
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<th>District Court</th>
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<tbody>
<tr>
<td>Burden of proof</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Strong non-infringement position</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Strong invalidity position</td>
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<td></td>
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<tr>
<td>Cost considerations</td>
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<td></td>
</tr>
<tr>
<td>Claim interpretation/amendments</td>
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<tr>
<td>Discovery</td>
<td>✔</td>
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<tr>
<td>Speed</td>
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# IPR vs District Court
*(Patent Owner’s Perspective)*

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<td>Strong infringement position</td>
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<tr>
<td>Strong validity position</td>
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<td>-</td>
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KEY FEDERAL CIRCUIT DECISIONS

- IPR – *In re Cuozzo Speed Tech.* (Feb. 4, 2015)
  - No appeal of PTAB’s institution decision under statute
  - BRI is proper claim construction standard
  - Judge Newman dissented in both respects
  - En banc petition denied in 6-5 vote (split over BRI)
  - PTAB final decision (cancellation) upheld
- After Cuozzo, many per curiam affirmances
  - Including 3 where PTAB found claims patentable
CBM – Versata v. SAP (July 9, 2015)

- No appeal of PTAB’s institution decision under statute
- But can review whether challenged patent “covered business method patent”
- § 101 challenges can be made in CBM
- PTAB final decision (cancellation) upheld
OTHER FEDERAL CIRCUIT DECISIONS

  - PTAB final decision canceled claims
  - CAFC reversed and remanded based on different claim construction (although still BRI)
  - CAFC affirmed PTAB’s denial of motion to amend
  - PTAB on remand allowed more briefing, extending case past 18 months
OTHER FEDERAL CIRCUIT DECISIONS

  - Achates sued QuickOffice for patent infringement in 2011
  - Achates claimed Apple indemnified QuickOffice and added Apple to suit *more than 1 year later*
  - Apple filed IPR
  - Achates contended Apple had relationship with QuickOffice because of indemnification that time barred Apple’s IPR
  - Achates moved for discovery but PTAB denied
  - PTAB found QuickOffice was not real-party-in-interest
  - Federal Circuit held that PTAB’s decision was unappealable
PTAB DECISIONS

- Denial of Institution
    - PTAB rejected petitioner’s third IPR attempt at same claims
  - *Cisco Sys. v. C-Cation Techs* (IPR2014-00454)
    - Skirted page limits with argument and claim charts in expert statement
  - *Unified Patents v. PersonalWeb Techs* (IPR2014-00702)
    - Denied because earlier IPR with substantially same art and arguments
  - *Unilever v P&G* (IPR2014-00506)
    - Unilever sought to bolster arguments in prior IPR that was denied; denied again because no evidence that new art was not previously available
PTAB DECISIONS

- One-year time limit runs from *service* of complaint
  - *TRW Automotive v Magna Elec.* (IPR2014-00293 to 00298)
  - *Motorola Mobility v Amouse* (IPR2013-00010)

- Continuing adversity not needed for CBM
  - *Westlake Services LLC v. Credit Acceptance Corp.* (CBM2014-00176)
  - Westlake filed CBM petition after being sued
  - After institution, parties settled and filed to terminate CBM
  - PTAB said parties cannot move to terminate
PTAB DECISIONS

Motion to Amend

- *Idle Free Systems v Bergstrom* (IPR2012-00027)
  - Patent Owner must show patentable distinction over prior art
- *MasterImage 3D v RealD* (IPR2015-00040)
  - Since motion to amend is only considered when existing claims are unpatentable, prior art focus is on added limitation
  - Once Patent Owner satisfies burden, burden shifts to Petitioner to show why amended claims is unpatentable

**Practice Pointer:** Motion to amend is not likely to be granted unless Patent Owner commits to the amendment.
PTAB DECISIONS

- Discovery about real party in interest
  - Granted
    - Arris Group v. C-Cation Tech. (IPR2015-00653)
    - American Simmental Assoc. v. Leachman Cattle (IPR2015-00003, -5)
  - Denied
    - Daifuku Co. v Murata Machinery (IPR2015-00084,-85, -88)
    - Petroleum Geo-Services Inc. v. Western Geco LLC (IPR2014-00687, -688, -689)
PROTECTING YOUR PATENTS

- Portfolio of multiple patents
  - Use continuation practice
- In an application:
  - Increase number of claims
  - 1 claim with means-plus-function
  - Detailed specification with multiple embodiments
  - 1 independent claim directed to preferred embodiment
  - Dependent claims with significant limitations
  - Prior art search
POSSIBLE LEGISLATIVE REFORM

- Not Directed to IPR, CBM and PGRs …
- But Some Changes If Passed
  - CBM – No extension of 2020 deadline
  - PGR – Narrow estoppel to issues “raised” only
  - All proceedings – Claim construction standard same as district court
RECENT RULE CHANGES
FIRST SET OF RULE CHANGES

- Published May 19, 2015
- Ministerial changes to rules for certain submissions
- 10 additional pages (25 total) for a patent owner’s motion to amend the claims in IPR
  - Must explain why amendment is patentable
- Claims appendix for motion to amend allowed
  - Amended claims need not be part of motion itself, and is not part of 25 page limit
- 10 additional pages (25 total) for petitioner’s reply brief
SECOND SET OF RULE CHANGES

- Published in FR on August 20, 2015
  - Public comment period until October 19

1. Patent Owner Preliminary (Pre-Institution) Responses
   - New testimonial evidence (declarations, depositions) can be submitted with preliminary responses
   - No right to cross-examine before institution decision
   - Factual disputes resolved in Petitioner’s favor pre-institution
   - Petitioners can seek leave to file a single reply to a preliminary response, with new testimonial evidence
SECOND SET OF RULE CHANGES

2. Word Count Limits on Submissions

3. New Rule 11-Type Certification
   - Amend duty of candor before PTAB (37 CFR 42.11) to require that a Rule 11-like certification for all papers filed in proceedings before the PTAB
   - Sanctions allowed for misconduct reported to OED
SECOND SET OF RULE CHANGES

4. Proposes Retaining BRI Claim Construction Standard (with an exception)
   - BRI standard upheld in *In re Cuozzo Speed Techs.* (Fed. Cir. July 8, 2015)
   - Declined to adopt *Phillips*-type claim construction standard (ordinary and customary meaning) when Patent Owner declines to amend claims
   - Proposes a *Phillips*-type construction standard when patent will expire before decision in AIA proceeding
     - Petitioner must provide *Phillips*-type construction in petition if patent soon to expire
SECOND SET OF RULE CHANGES

5. Additional Discovery
   - PTAB will continue to consider requests for additional
discovery on a case-by-case basis
     - Applies factors of Garmin v. Cuozzo, IPR2012-00001

6. Real Party in Interest
   - Patent Owners can challenge real party in interest at any
time in proceeding, but preferably early on
   - Declined to require that Petitioners, for example, supply
joint defense agreements or identify all parties assisting
in petition preparation
   - Assess RPI issues before filing
SECOND SET OF RULE CHANGES

7. Multiple Proceedings
   - Declined to require Petitioners to identify repetitive challenges to validity
   - Will continue to consider staying overlapping reexam proceedings or AIA trials on a case-by-case basis
   - Declined to bind all Petitioners to outcome of first-filed petition

8. Oral Hearings
   - Hearing Requests continue to be considered case-by-case
   - Requests for hearing recess also considered c-b-c
THE INTERESTING CASE OF KYLE BASS

- Hedge fund manager that files IPRs against key patents of pharma companies
  - File about 36 IPRs so far
  - Shorts the stock of the pharma companies
  - Claim altruistic motive – lower drug prices
THE INTERESTING CASE OF KYLE BASS

- 1 Patent Owner claimed abuse of process
  - PTAB denied sanctions
  - AIA allows “any person who is not the patent owner” to file IPR petition
- 1 other hedge has tried this, but denied on the merits
- Possible Legislative Reforms
  - Could impose standing requirement
  - Narrowly exclude hedge funds as petitioners
Supplemental Materials
<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>APPLICABLE STATUTES (35 U.S.C.)</th>
<th>WHO CAN INITIATE</th>
<th>POSSIBLE INVALIDITY ARGUMENTS</th>
<th>LIMITATIONS ON FILING (“FTF” = First to File)</th>
<th>LIMITATIONS ON FILING W/R/T COMPLAINT</th>
<th>STANDARD FOR INSTITUTION</th>
<th>DURATION OF PROCEEDING *not including appeals</th>
<th>ESTOPPEL STANDARD IN CIVIC ACTION</th>
<th>SETTLEMENT PERMITTED?</th>
<th>WHAT IS NOT APPEALABLE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter Partes Review (IPR)</td>
<td>§§ 311-319</td>
<td>Third party. § 311(a).</td>
<td>§§ 102, 103 based on printed publications. § 311(b)</td>
<td>Not FTF None</td>
<td>Within 1 year of service of complaint, and cannot be filed if petitioner filed earlier DJ action. § 315(a)(1).</td>
<td>Reasonable likelihood that petitioner would prevail on at least 1 claim. § 314(a).</td>
<td>18 months</td>
<td>Raised or reasonably could have raised. § 315(e)(2).</td>
<td>Yes. § 317.</td>
<td>Director’s determination of whether to institute. § 314(d); in re Cuozzo Speed Tech. (Fed. Cir. 2015)</td>
</tr>
<tr>
<td>Covered Business Method (CBM)</td>
<td>§§ 321-329</td>
<td>Third party. § 321(a).</td>
<td>§§ 101, 102, 103, 112 (except best mode). § 321(b).</td>
<td>Not FTF None</td>
<td>Only available to parties that are sued or charged with infringement of the patent to be challenged. AIA § 18(a)(1)(B).</td>
<td>More likely than not that at least 1 claim is unpatentable. § 324(a).</td>
<td>18 months</td>
<td>Raised only (not could have raised). AIA § 18(a)(1)(D).</td>
<td>Yes. § 327.</td>
<td>Director’s determination whether to institute, but whether patent is CBM can be appealed. § 324(e); Versata v. SAP (Fed. Cir. 2015)</td>
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<td>Post-Grant Review (PGR)</td>
<td>§§ 321-329</td>
<td>Third party. § 321(a).</td>
<td>§§ 101, 102, 103, 112 (except best mode). § 321(b).</td>
<td>Not FTF Cannot be filed</td>
<td>Cannot be filed if petitioner filed earlier DJ action. § 325(a)(1).</td>
<td>More likely than not that at least 1 claim is unpatentable. § 324(a).</td>
<td>18 months</td>
<td>Raised or reasonably could have raised. § 325(e)(1).</td>
<td>Yes. § 327.</td>
<td>Director’s determination whether to institute. § 324(e).</td>
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<td>Supplemental Examination</td>
<td>§ 257</td>
<td>Patent owner. 37 CFR § 1.601 (a)-(b).</td>
<td>§§101, 102, 103, 112 (except best mode). § 257(a). To be considered, an “item of information” must be in writing, 37 CFR § 1.605(c), but not limited to patents and printed publications.</td>
<td>Any time. 37 CFR § 1.601(c).</td>
<td>Prior inequitable conduct cannot be inoculated through supplemental examination if “pled with particularity in civil action” before filing of supplemental examination. § 257(c)(2).</td>
<td>Substantial new question of patentability. § 257(b).</td>
<td>Ex parte reexamination timing</td>
<td>NA</td>
<td>NA</td>
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</table>
UNITED STATES PATENT AND TRADEMARK OFFICE

_________________________
BEFORE THE PATENT TRIAL AND APPEAL BOARD

_________________________
ARCHER-DANIELS-MIDLAND COMPANY
Petitioner

v.

CONAGRA FOODS FOOD INGREDIENTS COMPANY, INC.
Patent Owner

_________________________
U.S. Patent No. 8,404,298

_________________________
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<tr>
<td>1001</td>
<td>U.S. Patent No. 8,404,298</td>
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<tr>
<td>1003</td>
<td>Canadian Patent No. 1,222,234 to Schmidt (“Schmidt”)</td>
</tr>
<tr>
<td>1005</td>
<td>U.S. Patent No. 2,752,097 to Lecher (“Lecher”)</td>
</tr>
<tr>
<td>1007</td>
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<tr>
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<td>1014</td>
<td>Canadian Patent No. 2,141,974 to Chigurupati et al. (“Chigurupati”)</td>
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<td>1015</td>
<td>May 17, 2010 Declaration of Elizabeth Arndt under 37 C.F.R. § 1.132, submitted during prosecution of U.S. Patent No. 8,017,172</td>
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<td>1016</td>
<td>May 17, 2010 Amendment and Remarks during prosecution of U.S. Patent No. 8,017,172</td>
</tr>
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<td>1017</td>
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</tr>
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</table>
I. INTRODUCTION

Petitioner Archer-Daniels-Midland Company hereby requests inter partes review of all claims of U.S. Patent No. 8,404,298 ("the ’298 patent"), assigned on its face to ConAgra Foods Food Ingredients Company, Inc.

II. REQUIREMENTS FOR PETITION FOR INTER PARTES REVIEW

A. Grounds for Standing (37 C.F.R. § 42.104(a))

Petitioner certifies that the ’298 patent is available for inter partes review, and Petitioner is not barred or estopped from requesting an inter partes review challenging the patent claims on the grounds identified in this Petition.

B. Notice of Real-Parties-in-Interest (37 C.F.R. § 42.8(b)(1))

The real-party-in-interest is Archer-Daniels-Midland Company.

C. Notice of Related Matters (37 C.F.R. § 42.8(b)(2))

1) The patent owner has asserted claims 7, 9-13, 15, 16, and 18-20 of the ’298 patent against Petitioner in ConAgra Foods Food Ingredients Company, Inc. v. Archer-Daniels-Midland Company, Case No. 2:12-CV-2171-EFM, pending in the United States District Court for the District of Kansas ("the Kansas litigation").¹ In the same litigation, the patent owner also asserts claims of two related patents, U.S. Patent Nos. 8,252,360 and 8,017,172. The parties have

¹ The Kansas litigation began in 2012, but the ’298 patent was added to the dispute by an Amended Complaint filed and served on April 10, 2013. (Ex. 1017.)
engaged in discovery in the Kansas litigation, and the District Court has construed
certain claim terms found in the patents (Ex. 1018). The parties have not
exchanged invalidity expert reports, and there have been no rulings on invalidity.

2) According to USPTO records, U.S. Application 13/774,742, filed on
February 22, 2013, claims the benefit of the priority of the filing date of the ’298
patent and therefore may be affected by these proceedings.

D. Notice of Lead and Backup Counsel and Service Information
(37 C.F.R. § 42.8(b)(3))

<table>
<thead>
<tr>
<th>Lead Counsel</th>
<th>Backup Counsel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tara C. Clancy (Reg. No. 40,935)</td>
<td>Mark G. Knedeisen (Reg. No. 42,747)</td>
</tr>
<tr>
<td>K&amp;L GATES LLP</td>
<td>K&amp;L GATES LLP</td>
</tr>
<tr>
<td>State Street Financial Center</td>
<td>K&amp;L Gates Center</td>
</tr>
<tr>
<td>One Lincoln Street</td>
<td>210 Sixth Avenue</td>
</tr>
<tr>
<td>Boston, MA 02111-2950</td>
<td>Pittsburgh, PA 15222-2613</td>
</tr>
<tr>
<td>T: (617) 261-3100</td>
<td>T: (412) 355-6342</td>
</tr>
<tr>
<td>F: (617) 261-3175</td>
<td>F: (412) 355-6501</td>
</tr>
<tr>
<td>Email: <a href="mailto:tara.clancy@klgates.com">tara.clancy@klgates.com</a></td>
<td>Email: <a href="mailto:mark.knedeisen@klgates.com">mark.knedeisen@klgates.com</a></td>
</tr>
</tbody>
</table>

E. Payment of Fees (37 C.F.R. §§ 42.15(a) and 42.103)

The Director is authorized to charge the fee specified by 37 C.F.R.
§ 42.15(a) to Deposit Account No. 11-1110.

F. Proof of Service

Proof of service of this Petition on the patent owner at the correspondence
address of record for the ’298 Patent, as well as the patent owner’s counsel of
record in the Kansas litigation, is attached hereto.
**G. Identification of Claims Being Challenged (37 C.F.R. § 42.104(B))**

Petitioner requests that all claims (1-20) of the ’298 patent be found unpatentable and cancelled in view of the following prior art. Each of these references is a patent or publication issued/published more than one year before the earliest claimed filing date of the ’298 patent, and is therefore prior art under 35 U.S.C. § 102(b) (pre-AIA):

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Reference</th>
<th>Issue / Publication Date</th>
<th>Cited on Face of ’298 Patent?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1003</td>
<td>Canadian Patent No. 1,222,234 (“Schmidt”)</td>
<td>May 26, 1987</td>
<td>No</td>
</tr>
<tr>
<td>1005</td>
<td>U.S. Patent No. 2,752,097 (“Lecher”)</td>
<td>June 26, 1956</td>
<td>No</td>
</tr>
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</table>

Specifically, as discussed in detail below, Petitioner requests cancellation on the following grounds:
<table>
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<tr>
<th>Ground</th>
<th>Claims</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>7-20</td>
<td>Anticipation by Behall</td>
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<td>7-20</td>
<td>Obvious over Behall in view of Schmidt</td>
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<tr>
<td>3</td>
<td>7, 9-13, 15, 16, 18-20</td>
<td>Anticipation by Pease</td>
</tr>
<tr>
<td>4</td>
<td>8, 14, 17</td>
<td>Obvious over Pease in view of Behall</td>
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<td>5</td>
<td>7-20</td>
<td>Anticipation by Lecher</td>
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<tr>
<td>6</td>
<td>1-6</td>
<td>Obvious over Hiroyuki in view of Behall</td>
</tr>
</tbody>
</table>

III. BACKGROUND AND OVERVIEW OF THE ’298 PATENT

The ’298 patent is directed to “the field of milling products and particularly to a whole grain flour and products including same.” (’298 patent, 1:34-36.)

Milling is the process by which a wheat kernel is broken down into smaller particle sizes. A wheat kernel is comprised of three principal components: bran, germ (the embryo) and endosperm:
(Diagram from http://www.californiawheat.org/industry/diagram-of-wheat-kernel/.) The bran is a protective covering for the grain, and has a tough, fibrous structure that makes it harder to break up in the milling process. The germ is the embryo from which the plant’s root and leaf form. The endosperm forms 81-84% of the grain, and consists mainly of potential food (starch) for the developing embryo plant. (See Ex. 1007, Leonard W. Aurand et al., Food Composition and Analysis, at 506 (1987).)

White or “refined” wheat flour is made using primarily endosperm. (See ’298 patent, 1:60-63.) Under guidelines promulgated by the Food & Drug Administration (“FDA”), to be considered white or “refined” flour, “not less than 98 percent” of the particles in the flour must be smaller than or equal to 212 microns. 21 C.F.R. § 137.105(a) (Ex. 1008). Whole wheat flour (also called “whole grain wheat flour”) is made from the entire wheat kernel and has historically “tend[ed] to have a coarser, more dense texture and a darker, less consistent appearance” than refined flour. (’298 patent, 1:43-46, 53-55.)

As discussed in the ’298 patent’s Background section, “a wide range of popular bakery and snack products” have historically been made using refined, or “white,” flour. (’298 patent, 1:40-41.) This is because “consumers often prefer the consistent texture and light color of products containing refined wheat flour.” (’298 patent, 2:29-30.) Whole wheat flour, however, “has increased nutritional
value compared to refined wheat flour because it includes the entire wheat kernel (i.e., includes bran, germ, and endosperm) rather than primarily just the endosperm.” (’298 patent, 1:59-62.) In particular, “whole grain wheat flour is higher in fiber, protein, lipids, vitamins, minerals, and phytonutrients,” while being lower in calories and starch. (’298 patent, 1:63-2:4.) Health practitioners therefore “have been promoting the benefits of whole grain foods,” and dietary guidelines have been amended to recommend increased consumption of whole grains. (’298 patent, 2:9-26.)

The ’298 patent purports to make a whole grain wheat flour that is more acceptable to consumers by grinding the flour to the same particle size as white flour (i.e., 98% of the particles being less than 212 microns, per the statutory definition). The patent’s Detailed Description discloses processes for manufacturing whole wheat flour ground to this fine level, including an iterative, single stream process described in column 12, Figure 11, and in several other patent applications that the ’298 patent incorporates by reference. (’298 patent, 12:18-59.) The patent criticizes prior attempts to manufacture whole wheat flour with such a fine granulation as “uneconomical”:

    current processes are uneconomical due to the energy usage and capitalization required to grind the millfeed using the roller mills, hammermills and bran slicers typically implemented in such
processes. Therefore, such processes cannot economically achieve the desired granulation.

(’298 patent, 2:55-59.)

Despite the specification’s emphasis on the economics of manufacture, the claims are not expressly limited to any method of manufacture. Instead, they broadly claim whole wheat flours and coarse fractions with particle sizes of refined wheat flour. Claims 1 and 7 are representative:

1. A coarse fraction produced from cleaned wheat kernels comprising:
   primarily bran and germ; and
   a particle size distribution such that at least 98 wt % of the coarse fraction is less than or equal to 212 µm.

7. A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:
   bran, germ, and endosperm;
   a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm; and
   substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.

During prosecution, the applicant confirmed that it did not intend to limit the claims to any method or machinery of manufacture. In response to a double patenting rejection, applicant argued that “[t]he patentable difference between the
claims in the instant application and the claims in the [patents recited in the double patenting rejection] centers on the fact that the claims in the instant application recite a coarse fraction and whole wheat flour products that can be produced using any process and the cited patents recite specific processes for milling grain.” (Ex. 1012, Feb. 7, 2013 Response, p. 7.)

As demonstrated below, there are multiple prior art references that disclose whole grain wheat flours and coarse fractions with the particle sizes claimed, rendering the claims invalid.

IV. PERSON HAVING ORDINARY SKILL IN THE ART

The ’298 patent describes the invention as relating to “the field of milling products and particularly to a whole grain flour and products including same.” (’298 patent, 1:34-36.) Petitioner submits that one of skill in the art in this field would have at least a bachelor’s degree in food science or a related field, such as chemistry with emphasis on food sciences, plus practical experience with the milling of wheat products and testing the same.

V. CLAIM CONSTRUCTION

A. Applicable Law

In deciding whether to institute inter partes review, “[a] claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). To the extent there is any ambiguity regarding the “broadest reasonable construction” of a
term, the ambiguity should be resolved in favor of the broader construction absent amendment by the patent owner. Final Rules, 77 Fed. Reg. at 48699.

While not controlling, claim constructions offered in related litigation are relevant to the “broadest reasonable construction.” See, e.g., SAP America, Inc. v. Versata Dev. Group, Inc., CBM2012-00001, Paper 36 at 8-9 (Jan. 9, 2013) (adopting petitioner’s proposed construction, in part, because it was “consistent with [patentee’s] proposed construction in the related district court proceeding”).

B. Broadest Reasonable Constructions of Claim Terms

Here, only a handful of terms may require construction. We address them separately below.

1. “coarse fraction”

Claims 1-6 of the ’298 patent are directed to a “coarse fraction” having a certain particle size. In the Kansas litigation, the District Court construed “coarse fraction” to mean “a portion of the wheat kernel that includes primarily bran and germ.” (Ex. 1018, p. 12.) In other words, a “coarse fraction” is a flour made from the bran and germ portion of the wheat kernel, excluding the endosperm portion. Petitioner requests that this be adopted as the broadest reasonable construction.2

2 We note that the District Court’s construction was proposed by patent owner in the litigation. (Ex. 1018, p. 12.) This further supports adopting this construction as the “broadest reasonable construction.” See SAP America, CBM2012-00001,
2. “about”

Claims 7-20 use the term “about” to modify both percentages and particle size. For example, claim 7 recites that “at least about 98% of the whole grain flour is less than or equal to about 212 µm.”

“The word ‘about’ does not have a universal meaning in patent claims, and [its] meaning depends on the technological facts of the particular case.” Cohesive Techs., Inc. v. Waters Corp., 543 F.3d 1351, 1368 (Fed. Cir. 2008). “The use of the word ‘about,’ avoids a strict numerical boundary to the specified parameter. Its range must be interpreted in its technological and stylistic context.” Ortho-McNeil Pharm., Inc. v. Caraco Pharm. Labs., Ltd., 476 F.3d 1321, 1326 (Fed. Cir. 2007).

In determining how far beyond the claimed range the term “about” extends the claim, courts “focus . . . on the criticality of the [ numerical limitation] to the invention.” Id.

In the Kansas Litigation, the District Court declined to construe “about,” giving the term “its ordinary and customary meaning.” (Ex. 1018, pp. 15-18.) For

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Paper 36 at 8-9. Petitioner, of course, reserves the right to pursue a narrower construction of “coarse fraction” in the Kansas litigation.
purposes of this Petition, therefore, Petitioner requests that the Board construe “about” to mean “approximately,” and that it not have a strict numerical boundary.3

3. “ash value”

Claim 11 recites that the whole grain wheat flour has “a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels.” Claim 15 depends from claim 11, and further recites that the “measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels.”

The ’298 patent explains ash values as follows:

The ash content of flour is a measurement of the minerals present in the flour. Flour samples are incinerated and the ash that remains after incineration represents the minerals present in the flour. Wheat flours with a high mineral content will have a higher percentage ash than wheat flours with a lower mineral content. Therefore, it follows that whole wheat flours will have a higher ash content than refined flours.

The claim limitations comparing the ash values of the flour — i.e., the percentage of the flour that is ash — to those of the kernel — i.e., the percentage of the kernel that is ash, therefore, simply establish whether the relative mineral content has been changed by the milling process.

Petitioner reserves the right to seek a narrower construction of “about” in litigation.
Petitioner therefore requests that the Board construe “a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels” to mean “the ash percentage of the flour is substantially the same as the ash percentage of representative kernels used to make the flour”; and to construe a “measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels” to mean “the ash percentage of the flour is at least about 97% of the ash percentage of representative kernels used to make the flour.”

VI. DETAILED EXPLANATION OF THE GROUNDS FOR UNPATENTABILITY

While the specification describes particular methods of manufacture, the claims broadly cover whole wheat flours and coarse fractions with particle sizes similar to refined wheat flour. As discussed below, several prior art references disclose whole wheat flours ground to the particle size levels of the claims. The claims are therefore invalid.

A. **Ground 1: Claims 7-20 Are Anticipated by Behall**

Behall is an article published in the Journal of the American College of Nutrition in 1999 that describes a study in which men and women were fed bread made with (i) traditional white flour, (ii) traditional whole-grain wheat flour, and (iii) “ultra-fine whole-grain wheat flour,” to compare their glycemic responses to the different breads. The “ultra-fine whole-grain wheat flour” disclosed in the
Behall discloses a “fine ground whole grain wheat flour” that was “made from hard white winter wheat (Platte variety).” (Behall, p. 592.)

(b) “bran, germ, and endosperm;”

The ’298 patent explains that whole wheat flour is made from the entire kernel, and therefore contains bran, germ, and endosperm: “Whole grain wheat flour has increased nutritional value compared to refined wheat flour because it includes the entire wheat kernel, (i.e., includes bran, germ, and endosperm) rather than primarily just the endosperm.” (’298 patent, 1:59-62.) Since Behall discloses a “fine ground whole grain wheat flour” (Behall, p. 592), it necessarily includes bran, germ, and endosperm.

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

Behall discloses the following particle size distribution for its fine ground whole grain wheat flour: “The fine ground whole grain wheat flour particle size ranged from 150 µm to <37 µm; the distribution was 100% <150 µm, 90% <73 µm, 53% <42 µm, and 45%<37 µm.” (Behall, p. 592, emphasis added.)
Therefore, Behall discloses a particle size distribution such that 100% of the whole grain wheat flour particles are less than 150 µm. Thus, Behall satisfies the requirement that at least about 98% of the particles be less than or equal to about 212 µm.

(d) “and substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”

In its Background section, the ’298 patent makes clear that this feature is a defining characteristic of “whole grain wheat flours”:

In whole wheat flour (whole grain wheat flour), the proportions of the natural constituents in the wheat, other than moisture, remain unaltered as compared to the wheat kernels.

(’298 patent, 1:53-55.) This tracks the FDA’s definition of “whole wheat flour” in 21 C.F.R. § 137.200 (1977 and 2013 versions in Ex. 1008, emphasis added):

§ 137.200 Whole wheat flour.

(a) Whole wheat flour, graham flour, entire wheat flour is the food prepared by so grinding cleaned wheat, other than durum wheat and red durum wheat, that when tested by the method prescribed in paragraph (c)(2) of this section, not less than 90 percent passes through a 2.36 mm (No. 8) sieve and not less than 50 percent passes through a 850 µm (No. 20) sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered…. 
Behall describes its fine ground whole wheat flour as a “whole grain wheat flour,” (Behall, p. 592) or “whole wheat flour” (Behall, p. 593 at Table 3 footnote). One of skill in the art reading Behall, therefore, would understand the reference to be disclosing a fine ground flour in which the natural constituents are in substantially the same proportions as the original kernels, per the FDA’s definition.\(^4\) This is confirmed by deposition testimony in the Kansas Litigation by Elizabeth A. Arndt, PhD, the ’298 patent’s first-named inventor:

Q. Okay. First, when someone of your experience sees the term “whole wheat flour,” what does that mean?
A. It means something that is ground to a -- a powder that has all the parts of the original kernel or kernels from which it was ground.

Q. Okay. Does it mean anything else?
A. It means that it has, as I said, all the parts -- the bran, the endosperm, and germ -- and all the associated nutrients that were in the original kernel, minus, perhaps, some loss in moisture content.

Q. Okay. Is there any regulation that applies to the term “whole wheat flour” in the United States?
A. There is the Code of Federal Regulations. Whole wheat flour has a standard of identity.

\(^4\) The FDA’s definitions of food products, such as “whole wheat,” are not treated loosely. Federal law requires that food manufacturers use the defined terms and standards of identity accurately. See 21 C.F.R. § 101.3; 21 U.S.C. § 341.
Q. Okay. And what is the standard of identity for whole wheat flour?

A. I’d have to review the exact regulation, the wording, but in essence it must contain all the representative parts of the kernel with -- with just loss of moisture allowed.

(Ex. 1010, pp. 9-10.)

2. Claim 8:

   (a) “The whole grain wheat flour of claim 7 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

   As discussed above for claim 7, limitation (c), Behall discloses that 100% of the particles in its fine whole grain wheat flour are less than 150 µm. (Behall p. 592.) Thus, the limitation of 8 is satisfied as well.

3. Claim 9:

   (a) “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

   As discussed above for claim 7, limitation (d), Behall discloses a fine ground whole wheat flour which one of skill in the art would understand to include all the natural constituents, other than moisture, in the kernel. (See Ex. 1008, definition of “whole wheat” in 21 C.F.R. § 137.200; Ex. 1010, Arndt Dep., pp. 9-10, 83; Ex. 1007, Aurand Treatise, p. 507 (“[a] flour extraction of 100% implies a whole wheat flour.”)) One of skill in the art, therefore, would understand the flour in
Behall to comprise “at least about 97%” of the natural constituents in the whole grain kernel. In fact, one of skill would expect closer to 100%. (Ex. 1010, Arndt Dep., pp. 9-10.)

4. Claim 10:

(a) “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

As discussed above for claim 7, limitation (d), and claim 9, Behall discloses a fine ground whole wheat flour, which one of skill in the art would understand to include all the natural constituents, other than moisture, in the kernel. (See Ex. 1008, definition of “whole wheat” in 21 C.F.R. § 137.200; Ex. 1010, Arndt Dep., pp. 9-10, 83; Ex. 1007, Aurand Treatise, p. 507 (“[a] flour extraction of 100% implies a whole wheat flour.”)) One of skill in the art, therefore, would understand the flour in Behall to comprise “at least about 97%” of the bran and germ from the whole grain kernel to be present. In fact, one of skill would expect closer to 100%. (Ex. 1010, Arndt Dep., pp. 9-10.)

5. Claim 11:

(a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

(b) “bran, germ, and endosperm;”

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”
These three limitations are identical to limitations (a)-(c) of claim 7. Please see the discussion under claim 7 above.

(d) “and a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels.”

As discussed above in the claim construction section, “ash value” reflects the mineral content. As the inventor, Dr. Arndt, testified in her deposition, “ash value” comparisons are used to determine whether a flour is whole wheat:

Q. For whole wheat flour, why do you measure the ash content?
   A. We measure it to -- as a indicator that it is whole wheat flour.

(Ex. 1010, p. 12.) Where a flour is, in fact, whole wheat, Dr. Arndt testified that the measured ash value of the flour would be near 100% of the ash value of the whole grain kernels:

Q. If you have a whole wheat flour and it’s called whole wheat flour, what would the percent ash be with respect to the kernel used to make the flour?
   MR. KNOPS: Reassert the same objection.
   A. It should represent the ash that is in the original kernel, the original cleaned kernel.
   Q. (By Ms. Clancy) So would that number be a hundred percent?
A. It should be near a hundred percent of what is in the original cleaned kernels.

(Ex. 1010, pp. 18-19.)

This is confirmed by a treatise published in 1987, which states that the ash value of whole wheat flour is the “[s]ame as in wheat.” (See Aurand, Ex. 1007, at 514.)

Behall does not explicitly disclose ash value measurements for its fine ground whole wheat flour or the kernel. However, Behall does label the flour “whole wheat flour.” Given the statutory definition of “whole wheat flour” in 21 C.F.R. § 137.200 (“[t]he proportions of the natural constituents of such wheat, other than moisture, remain unaltered….”), the inventor’s testimony cited above, and the Aurand treatise’s statement that the ash value of whole wheat flour is the “[s]ame as in wheat,” Behall at least inherently discloses a fine ground whole wheat flour with a measured ash value that is substantially the same as a representative ash value of the whole wheat kernels.

6. Claim 12:

(a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 9. See discussion under claim 9 above.
7. Claim 13:

(a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 10. See discussion under claim 10 above.

8. Claim 14:

(a) “The whole grain wheat flour of claim 11 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

This limitation is identical to claim 8. See discussion under claim 8 above.

9. Claim 15:

(a) “The whole grain wheat flour of claim 11 wherein the measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels.”

As discussed above, the first-named inventor of the ’298 patent, Dr. Arndt, testified that for a whole wheat flour, the measured ash value “should be near a hundred percent of what is in the original cleaned kernels.” (Ex. 1010, pp. 18-19. See also Aurand, Ex. 1007, at 514 (stating that the ash value of whole wheat flour is the “[s]ame as in wheat”); 21 C.F.R. § 137.200 (in whole wheat flour, “[t]he proportions of the natural constituents of such wheat, other than moisture, remain unaltered”)).
Thus, while Behall does not explicitly disclose ash values, one of skill in the art would understand, based on the label “whole wheat flour,” that the measured ash value of the flour would be “at least about 97 wt %” of the ash value for the whole grain kernel, and would likely be closer to 100%.

10. Claim 16:

(a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

(b) “bran, germ, and endosperm;”

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

These three limitations are identical to limitations (a)-(c) of claim 7. See the discussion under claim 7 above.

(d) “and substantially all of the bran and germ in the whole grain wheat kernels.”

As discussed above with respect to claim 7, limitation (d), and claims 9 and 10, Behall discloses a fine ground whole wheat flour that one of skill in the art, based on the “whole wheat” label, would understand to include all the natural constituents, other than moisture, of the kernel. (See Ex. 1008, 21 C.F.R. § 137.200 (FDA regulation requiring that in whole wheat flour, “[t]he proportions of the natural constituents of [the cleaned] wheat, other than moisture, remain unaltered”); Ex. 1010, Arndt Dep., pp. 9-10; Ex. 1007, Aurand, at 507 (“[a] flour extraction of 100% implies a whole wheat flour”).
11. Claim 17:

(a) “The whole grain wheat flour of claim 16 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

This limitation is identical to claim 8. See discussion under claim 8 above.

12. Claim 18:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour includes substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 7, limitation (d). See discussion under claim 7, limitation (d), above.

13. Claim 19:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 9. See discussion under claim 9 above.

14. Claim 20:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 10. See discussion under claim 10 above.
15. Patent Owner’s Arguments Against Behall

In the Kansas Litigation, the patent owner has not yet taken a formal position as to why Behall does not anticipate its claims. However, in recent briefing, the patent owner has suggested it will argue that the flour disclosed in Behall is identical to that disclosed in Chigurapati I, a reference the patent owner overcame during prosecution of one of the parent applications. Specifically, in a recent brief, patent owner stated as follows:

ADM [Petitioner] relies on several articles from Behall and Hallfrisch as the basis for their belief that ConAgra produced “whole wheat flour” (i.e., it has the high ash value) with the requisite particle size. But this flour (commonly, albeit incorrectly, referred to as “whole wheat flour”) is the Chigurupati I flour. The Patent Office was keenly aware of this flour and expressly found it not to invalidate or make obvious any of the patents at issue in the present litigation.

(Ex. 1019, p. 8.) As explained below, patent owner’s argument is not sustainable.

During prosecution of U.S. Patent No. 8,017,172, a parent to the ’298 patent, the Examiner rejected claims over Canadian patent CA 2,141,974 to Chigurupati et al. (“Chigurupati I”). (Ex. 1013, pp. 2-4, 9-10.) Chigurupati I disclosed an “Ultra-Fine Whole Wheat” flour wherein 100% of the flour particles were smaller than 150 µm. (Ex. 1014, Chigurapati I, at p. 12.) To overcome the rejections, the patent owner submitted a Declaration from the inventor, Dr. Arndt, in which she argued that, a person of skill in the art would not consider the flour disclosed in
Chigurapati I to be “whole wheat flour.” (Ex. 1015.) According to Dr. Arndt’s Declaration, the measured ash value in Chigurapati I’s Example 1 was only 85% of the expected ash value for this type of wheat kernel. (Id., ¶ 5.) This ash difference, she argued, meant that the nutrient content of the flour was substantially reduced from that of the kernel, and that the flour would therefore not be “whole wheat flour” as defined by § 137.200 (the FDA regulation cited above). (Id., ¶¶ 6-9.) Relying on Dr. Arndt’s Declaration, the patent owner argued as follows in response to the rejection:

The Office Action alleges the ultra-fine flour product in Chigurupati I meets the definition of whole grain flour recited in the claims because Chigurupati I discloses that the ultra-fine flour product is whole wheat flour. Applicants do not agree.

As discussed above, one of skill in the art would not consider the ultra-fine flour product disclosed in table 12 of Chigurupati I to be “whole wheat flour” as defined in section 137.200 as evidenced by the ash content. See Arndt declaration at paragraph 9.

(Ex 1016, p. 17, highlighting added.) The ’172 claims were later allowed.

Based on the patent owner’s recent litigation filing, it may argue that the flour disclosed in the Behall reference “is the Chigurupati I flour,” and is therefore distinguishable for the same reasons. This argument is both factually and legally flawed.

First, the argument is factually dubious. The flour in Chigurapati I’s Example 1 was made from “Hard Red Spring Wheat” (Chigurapati I, p. 11), while
the Behall flour was made from “hard white winter wheat.” (Behall, p. 592.)

These are not the same flours.

Second, and more fundamentally, however, the argument is legally flawed. Even if the flour used by Dr. Behall in her study was, in fact, not a whole wheat flour, this would be irrelevant. The prior art reference cited herein is the Behall article, not the flour actually fed to subjects in Dr. Behall’s study. The article plainly discloses a “whole grain wheat flour” / “whole wheat flour.” (Behall, p. 592 and p. 593 Table 3 footnote.) This, in combination with the other details in Behall, disclosed the subject matter of the ’298 patent claims to those of skill in the art. Whether the article correctly described the flour the authors used in their study is legally irrelevant. See In re Donohue, 766 F.2d 531, 533 (Fed. Cir. 1985) (“It is not … necessary that an invention disclosed in a publication shall have actually been made in order to satisfy the enablement requirement”; rejecting applicant’s argument that a prior publication rejection could be overcome by an affidavit from the prior publication’s author stating that the publication’s underlying composition did not in fact contain an element of the claimed invention). Indeed, Dr. Arndt testified in her deposition that nothing in Behall indicated the fine whole wheat flour disclosed was not in fact a whole wheat flour. (Ex. 1010, p. 83.) Behall, therefore, anticipates claims 7-20.
B. **Ground 2: Claims 7-20 are obvious over Behall in view of Schmidt**

In the event the Board finds that certain limitations are not expressly or inherently disclosed in Behall, then these claims are rendered obvious under 35 U.S.C. § 103 by Behall in combination with Schmidt.

In particular, as noted above, the patent owner may argue that Behall was not a “whole wheat” flour, and therefore does not disclose the following limitations:

<table>
<thead>
<tr>
<th>“Whole Wheat” Limitation</th>
<th>Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.</td>
<td>7, 18</td>
</tr>
<tr>
<td>the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.</td>
<td>9, 12, 19</td>
</tr>
<tr>
<td>the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels</td>
<td>10, 13, 20</td>
</tr>
<tr>
<td>a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels</td>
<td>11</td>
</tr>
<tr>
<td>wherein the measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels.</td>
<td>15</td>
</tr>
<tr>
<td>substantially all of the bran and germ in the whole grain wheat kernels</td>
<td>16</td>
</tr>
</tbody>
</table>

Schmidt, a Canadian patent issued in 1987, discloses a hammer mill for producing a fine whole wheat flour with particle sizes less than 1/64 of an inch (i.e., less than 397 µm). (Schmidt, p. 2, lines 12-14.) To “prevent moisture and
flour from forming a dough and caking around the recirculating air intake,”

Schmidt’s hammer mill extracts the flour dust created during grinding from the

casing and then returns it to the flour to avoid waste. (Schmidt, Abstract lines 1-

21, p. 3 lines 1-16.) Figure 1 of Schmidt is shown below:

The casing 12 houses a conventional hammer assembly, which is shown in Fig. 2.

Grain is fed into the casing through hopper 13 via chute 14. Inside the casing,
grain is hammered “and then exits through an annular screen 16 [Fig. 2] when it
has been reduced to a fineness sufficient to permit it to pass through the interstices of the screen.” (Schmidt, p. 6 line 8 to p. 7 line 4.) Dust is gathered in a dust collector 36 and then “fed back by gravity via flexible conduit 37, to the auger 23 to be mixed with the flour passing through the discharge 22 to the auger assembly.” (Schmidt, p. 9 lines 13-19.) Schmidt also discloses including an annular seal 31 to “seal[] off the aperture 27 and the air intake from the casing exteriorly of the screen assembly as shown in Figure 3 and prevents any flour dust from coming into contact with the air being drawn in by the rotating hammer assembly.” (Schmidt, p. 8, lines 2-22.)

Schmidt states that his design “permits me to provide a whole grain flour such as whole wheat in which all of the components are of a predetermined maximum size so that the resultant flour is completely homogenous and without the bran fraction being larger than the kernel [endosperm] fraction.” (Schmidt, p. 3 lines 12-16.) Schmidt is not cited on the face of the ’298 patent.

If the Board determines that Behall does not disclose retaining:
(a) substantially all of the bran and germ; (b) 97% of the bran and germ;
(c) substantially all of the natural constituents; (d) 97% of the natural constituents;
(e) substantially all of the minerals [ash value]; or (f) 97% of the ash value, then it would have been obvious to one of skill in the art to combine Behall with sealing and dust collection techniques as taught in Schmidt to retain all of the natural
constituents of the kernel. One of skill would have been motivated to make the combination both to reduce waste and to comply with the FDA regulation for whole wheat flour, which requires that “[t]he proportions of the natural constituents of such wheat, other than moisture, remain unaltered.” 21 C.F.R. § 137.200. Accordingly, if not anticipated, the claims would have been obvious.

C. **Ground 3: Claims 7, 9-13, 15, 16, and 18-20 Are Anticipated by Pease**

Pease is an article published in 1950 entitled “Unifine Flour: Milling, Baking, and Consumer Acceptance Tests.” It describes a high-speed rotary mill that “grinds the entire wheat berry into flour of the fineness of white flour.” (Pease, p. 1.) In particular, Pease discloses a whole wheat flour in which 97.4% of the flour has a particle size less than 180 µm, and more than 99.3% of the kernel (excluding moisture) is retained in the flour after grinding. (Pease, pp. 9, 18-19; Ex. 1009.) Pease is cited on the face of the ’298 patent, but was not raised by the examiner during prosecution of any of the ’298 patent claims. We compare Pease to the claims below.

Petitioner submits that Pease is not redundant to the first primary reference, Behall. The strengths of Pease, compared to Behall, are: (i) it explicitly discloses loss amounts and an ash value, which Behall does not; (ii) it discloses, in detail, the machinery used to prepare the flour; and (iii) patent owner’s argument that the Behall flour “is the Chigurapati flour” (however flawed) is not available for Pease.
The strengths of Behall, as compared to Pease, are that it was not cited on the face of the patent, and it also anticipates the 150 µm dependent claims.

1. **Claim 7:**

   (a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

   (b) “bran, germ, and endosperm;”

   Pease discloses that the “flour produced by the experimental mill contains the entire wheat berry ground to a fineness and uniformity of high degree in comparison with common whole-wheat flour.” (Pease, p. 1, n.1.)

   (c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

   At Table 1 on p. 9, Pease discloses that 97.4% of the Sample Number 1F flour passed through an 80-screen. An 80-screen passes only particles smaller than 180 µm. (Ex. 1009.) Thus, Pease discloses a whole wheat flour with “about 98%” of the flour “less than or equal to about 212 µm.”

   (d) “and substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”

   In a section entitled “Moisture Loss and Yield” on pp. 18-19, Pease calculates the amount of flour lost during grinding:
Here, Pease calculates that 29 lbs were lost to floor sweepings, and assumes an “equal” amount was carried out by the ventilating fan, yielding a total flour loss of 58 lbs from the milling process. The remaining loss was moisture loss due to drying. (Pease, p. 19.) The flour loss “other than moisture,” therefore, was less than 0.7%. Since so little of the wheat kernel is lost, the flour will have substantially the same proportions of natural constituents, other than moisture, as compared to the kernel.

Moreover, Pease identifies its flour as “whole wheat” flour made from the entire berry. (Pease, p. 1.) As discussed in detail above in Ground 1, the ’298 patent’s Background section, FDA regulations, and inventor Ardnt’s testimony all

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5 Total flour lost (floor sweepings + flour carried out by ventilation fan) divided by total flour obtained plus flour lost: 
\[
\frac{(29+29)}{(8517+58)} \times 100 = 0.68\%.
\]
Because moisture loss is expressly excluded by claim 7 (and 21 C.F.R. § 137.200), it is not considered here in determining the loss percentage.
make clear that retaining “the proportions of the natural constituents in the wheat, other than moisture” is a defining characteristic of “whole wheat flour.” (*298 patent, 1:53-55; 21 C.F.R. § 137.200; Ex. 1010, Arndt Dep., pp. 9-10.) Thus, even without the loss data, one of skill in the art would understand Pease to be disclosing a flour in which the natural constituents, other than moisture, are in the same proportions as the whole kernels.

2. **Claim 9:**

(a)  “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

See discussion of claim 7, limitation (d) above. Since at least 99.3% of the kernel (other than moisture) is retained in the Pease flour, the flour disclosed in Pease retains at least about 97 wt % of the natural constituents, other than moisture, from the original kernels.

3. **Claim 10:**

(a)  “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

See discussion of claim 7, limitation (d) above. At least 99.3% of the kernel (other than moisture) is retained in the Pease flour. Roughly 16%-19% of a wheat kernel is bran and germ. (Ex. 1007, Aurand, p. 506.) Thus, even if all the flour
lost by Pease is from bran and germ (and nothing in Pease suggests that is the case), the flour would still comprise at least about 97% of the bran and germ in the representative sample.

4. **Claim 11:**

   (a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

   (b) “bran, germ, and endosperm;”

   (c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

   These three limitations are identical to limitations (a)-(c) of claim 7. Please see the discussion under claim 7 above.

   (d) “and a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels.”

   As discussed above in the claim construction section, “ash value” simply represents the mineral content. Since, as explained above, Pease retains more than 99.3% of the kernel, the measured ash value will be substantially the same as a representative ash value for the original kernel.

   Moreover, in Table 6, Pease discloses a measured ash value of 1.7%, calculated on a 14% moisture basis, for its flour. (Pease, p. 29.) This high reading is consistent with the flour being a whole wheat flour and is, in fact, higher than the measured ash value disclosed for “the present invention” in the ’298 patent. (See Fig. 8 of the ’298 patent, which discloses an ash value of 1.6% calculated on a
12% moisture basis for the “Ultrafine-Milled Whole-Grain Wheat Flour,” and column 4, lines 45-52 describing this flour as “the present invention.”) Thus, the Pease flour’s disclosed high ash value is consistent with the Pease flour having a measured ash value substantially the same as a representative ash value for the whole grain wheat kernels milled.

Moreover, as discussed above, Pease discloses a whole wheat flour, which one of skill in the art would understand to have a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels. (See Ex. 1008, definition of “whole wheat” in 21 C.F.R. § 137.200; Ex. 1010, Arndt Dep., pp. 18-19; Aurand, Ex. 1007, at 514 (ash value of whole wheat flour is “[s]ame as in wheat.”).

5. Claim 12:

   (a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

   This limitation is identical to claim 9. See discussion under claim 9 above.

6. Claim 13:

   (a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

   This claim is identical to claim 10. See discussion under claim 10 above.
7. Claim 15:

(a) “The whole grain wheat flour of claim 11 wherein the measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels.”

As discussed above for claim 11, limitation (d), since Pease retains more than 99.3% of the kernel, the measured ash value will be substantially the same as a representative ash value for the original kernel. Also, as discussed above, in Table 6, Pease discloses a measured ash value of 1.7%, calculated on a 14% moisture basis, for its flour (Pease, p. 29), which is consistent with the Pease flour having a measured ash value substantially the same as a representative ash value for the whole grain wheat kernels. See also Aurand, Ex. 1007, at 514 (stating that the ash value of whole wheat flour is the “[s]ame as in wheat”); 21 C.F.R. § 6

To calculate the precise percentage ash retained in Pease, one would also need the ash percentage of the kernel used to make the Pease Unifine Flour disclosed in Table 5. That number is not reported in Pease, and representative data for this time period is not readily available. However, since Pease’s stated lose is less than 0.7% of the flour during milling, there is no reason to believe more than 3% of the mineral content would be lost in the process. Moreover, as discussed above under claim 11, limitation (d), Pease’s disclosed ash value of 1.7% is higher than the ash value disclosed for “the present invention” in the ’298 patent, and is therefore consistent with the ash value of the Pease flour satisfying the claim.
137.200 (in whole wheat flour, “[t]he proportions of the natural constituents of such wheat, other than moisture, remain unaltered”).

8. Claim 16

(a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

(b) “bran, germ, and endosperm;”

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

These three limitations are identical to limitations (a)-(c) of claim 7. Please see the discussion under claim 7 above.

(d) “and substantially all of the bran and germ in the whole grain wheat kernels.”

As discussed above with respect to claim 7, limitation (d), and claims 9 and 10, less than 0.7% of the kernel in Pease is lost during milling (other than moisture). Roughly 16%-19% of a wheat kernel is bran and germ. (Ex. 1007, Aurand, p. 506.) Thus, even if all the flour lost by Pease is bran and germ (and nothing in Pease suggests that is the case), the flour would still comprise substantially all of the bran and germ in the representative sample.

9. Claim 18:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour includes substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”
This limitation is identical to claim 7, limitation (d). See discussion under claim 7, limitation (d), above.

10. Claim 19:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 9. See discussion under claim 9 above.

11. Claim 20:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 10. See discussion under claim 10 above.

D. Ground 4: Claims 8, 14, and 17 Are Obvious Over Pease in View of Behall

Claims 8, 14, and 17 all require a particle size distribution “wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.” Pease discloses a whole wheat flour with 97.4% less than 180 µm. (Pease, p. 9 and Ex. 1009.) Behall, however, discloses a particle size distribution such that 100% of the whole grain wheat flour is less than 150 µm. (Behall, p. 592.)
It would have been obvious to one of skill in the art at the time of the invention to grind Pease slightly more to achieve the finer particle size disclosed in Behall. The additional modest amount of grinding amounts to nothing more than using a known technique to improve the product, achieving a predictable result. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). Indeed, even without the disclosure of 100% <150 µm in Behall, the difference between the claims and the particle size taught in Pease is not sufficient to be a patentable distinction. *Id.* at 417-18 ("If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability").

E. **Ground 5: Claims 7-20 Are Anticipated by Lecher**

Lecher is a 1956 U.S. patent that discloses a method and apparatus for “pulverizing of materials in a dry condition” down to very small particle sizes of 10-50 microns or less. (Lecher, 1:15-21.) In the apparatus, materials are carried by a gas (such as air) along a closed circuit, where they are “brought repeatedly into contact with each other and/or into contact with abutting surfaces,” while simultaneously being “subjected to intense sonic energy.” (Lecher, 2:63-3:8, 4:45-61.)

As one example, Lecher describes pulverizing wheat to “extremely fine particle size,” which Lecher defines as between 10 and 50 microns. (Lecher, 17:20-30, 1:49-54.) According to Lecher, “Whole wheat flour and whole rye flour
each of exceptional value and good bread-making qualities can thus be produced.”

(Lecher, 17:27-30.) As demonstrated below, Lecher anticipates claims 7-20. It is not cited on the face of the ’298 patent.

Petitioner submits that claim rejections based on Lecher would not be redundant to rejections based on Behall or Pease. A strength of Lecher, as compared to Behall, is that the patent owner has no connection to the flour disclosed by Lecher. Thus, patent owner’s argument that the Behall flour is the Chigurapati I flour,” (however flawed), is not available against Lecher. Strengths of Lecher, as compared to Pease, is that Lecher discloses smaller particle sizes (meeting the <150 µm claims), and Lecher was not cited on the face of the ’298 patent. In addition, Lecher discloses a closed-circuit that retains all grindings.

1. **Claim 7:**

   (a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:

   Lecher discloses pulverizing whole grains to produce whole wheat flour (Lecher, 17:25-30):

   Thus cereals such as wheat, rye, rice, barley, oats, corn and the like may readily be reduced to produce whole grain flours of excellent quality for human and animal consumption. Whole wheat flour and whole rye flour each of exceptional value and good bread-making quality may thus be produced.

   (b) “bran, germ, and endosperm;”
Wheat kernels contain bran, germ, and endosperm. (’298 patent, 1:59-62.)

The “whole wheat flour” disclosed in Lecher thus necessarily includes bran, germ, and endosperm. (Lecher, 17:25-30, 18:32-44.)

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

Lecher defines “ultra-fine” particles to be “less than 10 microns average particle size” and states that “‘fine’ will be used to designate materials ranging from about the minimum particle size that can be sieved (i.e. about 50 microns) down to 10 microns.” (Lecher, 1:49-54.) He later states that, using his apparatus, “widely varying solid substances of organic and inorganic composition are capable of reduction to extremely fine particle size.” (Lecher, 17:20-23.) This includes “cereals such as wheat.” (Lecher, 17:25.) He also describes grinding a “whole wheat flour” to a “fine particle size.” (Lecher, 17:20-30) Thus, Lecher discloses a whole wheat flour with a particle size distribution of 100% less than 50 microns.

(d) “and substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”

Lecher describes creating a “closed circuit” system to tightly control moisture, vapor pressure, and temperature, by connecting the outlet 34 of Figure 1 to the inlet 25. (Lecher, 4:45-61. See also discussion of the embodiment of Figure 16, at 14:40 to 15:6.) Thus, all of the grindings of the wheat kernel are collected,
and the flour will have substantially the same proportions of natural constituents, other than moisture, as compared to the whole grain kernels.

2. Claim 8:

(a) “The whole grain wheat flour of claim 7 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

See discussion of claim 7, limitation (c) above. The particles produced are 100% below 50 microns. (Lecher, 1:49-54, 17:20-25, 18:32-45.)

3. Claim 9:

(a) “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

See discussion of claim 7, limitation (d) above. All of the grindings are collected in the closed circuit, and the flour will therefore necessarily comprise at least about 97 wt % of the natural constituents, other than moisture, in the kernels.

4. Claim 10:

(a) “The whole grain wheat flour of claim 7 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

See discussion of claim 7, limitation (d) above. All of the grindings are collected in the closed circuit, and the flour will therefore necessarily comprise at least about 97 wt % of the bran and germ in the kernels.
5. Claim 11:

(a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

(b) “bran, germ, and endosperm;”

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

These three limitations are identical to limitations (a)-(c) of claim 7. Please see the discussion under claim 7 above.

(d) “and a measured ash value that is substantially the same as a representative ash value for the whole grain wheat kernels.”

As discussed above in the claim construction section and in Ground One, “ash value” represents mineral content. Since Lecher’s closed circuit captures all of the grindings, the ash value of the whole wheat flour produced by his apparatus will be substantially the same as the ash value for the whole grain kernels.

Moreover, since Lecher labels his resulting flour “[w]hole wheat flour,” (Lecher, 17:28), one of skill in the art would understand the flour to have an ash value substantially the same as the kernel. (Ex. 1010, Arndt Dep., pp. 12, 18-19; Ex. 1008, 21 C.F.R. § 137.200; Ex. 1007, Aurand Treatise, p. 513 (stating that the ash value of whole wheat flour is the “[s]ame as in wheat”). See also discussion above under Ground 1, claim limitation 11(d).)
6. Claim 12:

(a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 9. See discussion under claim 9 above.

7. Claim 13:

(a) “The whole grain wheat flour of claim 11 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and germ in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 10. See discussion under claim 10 above.

8. Claim 14:

(a) “The whole grain wheat flour of claim 11 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

This limitation is identical to claim 8. See discussion under claim 8 above.

9. Claim 15:

(a) “The whole grain wheat flour of claim 11 wherein the measured ash value is at least about 97 wt % of the representative ash value for the whole grain wheat kernels.”

As discussed above in the claim construction section and in Ground One, “ash value” reflects the mineral content. Since Lecher’s “closed circuit” captures all the grindings, the ash value of the whole wheat flour produced by his apparatus
will be at least about 97% of the ash value for the whole grain kernels, and likely close to 100%.

Moreover, as discussed above in Ground One, the first-named inventor of the ’298 patent, Dr. Arndt, testified that for a whole wheat flour, the measured ash value “should be near a hundred percent of what is in the original cleaned kernels.” (Ex. 1010, pp. 18-19.) Since Lecher labels his resulting flour “[w]hole wheat flour” (Lecher, 17:28), one of skill in the art would understand the flour to necessarily have an ash value near 100% of the ash value of the original kernel. (Ex. 1010, Arndt Deposition, pp. 12, 18-19; Ex. 1008, 21 C.F.R. § 137.200; Ex. 1007, Aurand Treatise, p. 513 (stating that the ash value of whole wheat flour is the “[s]ame as in wheat”). See also discussion above under Ground 1, claim limitation 11(d).)

10. Claim 16

(a) “A whole grain wheat flour produced from whole grain wheat kernels, the whole grain wheat flour comprising:”

(b) “bran, germ, and endosperm;”

(c) “a particle size distribution such that at least about 98% of the whole grain wheat flour is less than or equal to about 212 µm;”

These three limitations are identical to limitations (a)-(c) of claim 7. See the discussion under claim 7 above.

(d) “and substantially all of the bran and germ in the whole grain wheat kernels.”
As discussed above with respect to claim 7, limitation (d), and claims 9 and 10, in Lecher, all of the grindings are collected in the closed circuit, and the whole wheat flour produced by his apparatus will therefore necessarily have substantially all of the bran and germ from the kernels.

11. Claim 17:

(a) “The whole grain wheat flour of claim 16 wherein at least about 98% of the whole-grain wheat flour has a particle size less than or equal to about 150 µm.”

This limitation is identical to claim 8. See discussion under claim 8 above.

12. Claim 18:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour includes substantially the same proportions of natural constituents, other than moisture, as compared to a representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 7, limitation (d). See discussion under claim 7, limitation (d), above.

13. Claim 19:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the natural constituents, other than moisture, in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 9. See discussion under claim 9 above.

14. Claim 20:

(a) “The whole grain wheat flour of claim 16 wherein the whole grain wheat flour comprises at least about 97 wt % of the bran and
germ in the representative sample of the whole grain wheat kernels.”

This limitation is identical to claim 10. See discussion under claim 10 above.

F. **Ground 6: Claims 1-6 Are Obvious Over Hiroyuki in View of Behall**

Claims 1-6 are directed to “A coarse fraction produced from cleaned wheat kernels” rather than “A whole grain wheat flour produced from whole grain wheat kernels.” As discussed above in the claim construction section, a ground “coarse fraction” is a flour made primarily from the bran and germ portion of the wheat kernel. The references discussed in Grounds 1-5 disclose whole wheat flours, not separately milled coarse fractions.

There are, however, numerous prior art references which disclose separating and separately milling the components of the kernel — a practice dating back centuries. (Ex. 1010, Arndt Deposition, p. 40.) These references, in combination with the “fine grinding” primary references discussed above, render the coarse fraction claims obvious. We present one proposed obviousness rejection: Hiroyuki in combination with Behall.

1. **Claim 1:**

(a) “A coarse fraction produced from cleaned wheat kernels comprising:”

(b) “primarily bran and germ;”
Hiroyuki, a Japanese patent application published in July 2001, discloses a method of separately milling the three components of the wheat kernel — the bran, germ, and endosperm — and then heat treating the bran and germ powders. After that, the three components can either be recombined to form a whole wheat flour, or the bran and germ portions can be combined together alone, to form a coarse fraction:

(2) A whole wheat flour composition characterized by involving a milling process including crushing, refining, grinding, and sifting processes, after being separated into three parts including the outer-husk raw bran part, raw wheat germ part, and the powder part from the endosperm, which is that of wheat flour. The wheat flour is produced by fermenting the wheat powder part in air by the conventional method. Also, the raw bran part is roasted at a temperature of 100-180º C; the bran fine powder is produced, making it edible, by grinding into a fine powder with a grain size of 50-500 µm. The wheat germ part is roasted at a temperature of 100-180º C, and is produced by grinding into a fine powder with a grain size of 50-500 µm, undergoing a process to increase its shelf life. Thus, three types of powders including the bran fine powder, wheat germ fine powder, and flour are prepared. Next, at least one or both the aforementioned bran fine powder and/or the aforementioned wheat germ fine powder are combined with the aforementioned flour, or the aforementioned bran fine powder or the aforementioned wheat germ fine powder are combined together.
(Hiroyuki Certified Translation, p. 6, at [0009].) The last option in the above quotation — combining the bran fine powder and the germ fine powder together — creates a “coarse fraction” comprising “primarily bran and germ,” as called for by the above limitations.

(c) “and a particle size distribution such that at least 98% of the coarse fraction is less than or equal to 212 µm;”

Hiroyuki does not disclose this particle size, instead disclosing a range of 50-500 µm, with an average particle size of 150 µm. (Hiroyuki, p. 6 at [0009] and pp. 8-9 at [0014].) Behall, however, as discussed above in Ground 1, discloses a whole wheat flour with a particle size distribution where 100% of the particles are less than 150 µm. (Behall, p. 592.) It would have been obvious to one of skill in the art to grind the coarse fraction components of Hiroyuki until at least 98% of the particles were less than or equal to 150 µm (and thus less than 212 µm), as disclosed in Behall. One of skill would have been motivated to make this combination by the statements in Behall that grinding the bran and germ to the particle size of refined flour (98% < 212 µm, per 21 C.F.R. § 137.105) may encourage greater consumption of the more healthy bran and germ:

Results indicate that consumption of ultra-fine whole-grain bread containing more total fiber than white bread, while maintaining a texture similar to that of white bread, can result in a moderately lower glucose response than does consumption of white bread. Health benefits have been associated with consumption of whole grain foods.
However, traditional white bread is still the primary bread consumed by the American population. Ultra-fine whole wheat flour may be more acceptable to the typical American than conventional whole-wheat bread while providing the beneficial effects of reduced glycemic response and increased intake of total dietary fiber.

(Behall, p. 596.) Accordingly, claim 1 would have been obvious.

2. Claim 2:

(a) “The coarse fraction of claim 1 wherein the coarse fraction comprises at least 97 wt % bran and germ.”

The coarse fraction disclosed in Hiroyuki (made by combining the bran fine powder with the wheat germ fine powder) is entirely bran and germ. (Hiroyuki, p. 6, at [0009].)

3. Claim 3:

(a) “The coarse fraction of claim 1 wherein the coarse fraction comprises substantially the same ratio of bran to germ as the cleaned wheat kernels.”

The passage from Hiroyuki quoted above discloses separating the kernel components into their constituent three parts, separately milling those three parts, and then combining “the aforementioned” bran fine powder with “the aforementioned” germ fine powder to make the coarse fraction. (Hiroyuki, p. 6 at [0009].) Thus, in this passage, all of the bran and germ are combined together, and the coarse fraction will therefore have substantially the same ratio of bran to germ as the cleaned wheat kernels.
Other portions of Hiroyuki disclose combining only portions of the bran and germ powders to create specialized ratios. (Hiroyuki, p. 9, at examples 2-4.) Thus, the absence of any ratios in the ¶ [0009] example shows that, in that disclosure, all of the bran and germ is combined.

4. Claim 4:

(a) “The coarse fraction of claim 1 wherein at least 96 wt % of the coarse fraction has a particle size less than or equal to 150 µm.”

As discussed above under claim 1, limitation (c), Hiroyuki discloses an average particle size of 150 µm, but not 96 wt % of the particles below 150 µm. (Hiroyuki, p. 6 at [0009] and pp. 8-9 at [0014].) Behall, however, discloses a particle size distribution where 100% of the particles are less than 150 µm. (Behall, p. 592.) For the same reasons provided above, it would have been obvious to one of skill in the art to grind the coarse fraction components of Hiroyuki to the specifications disclosed in Behall. One of skill would have been motivated to make this combination by the statements in Behall that grinding the bran and germ to the fine levels disclosed may encourage greater consumption of the more healthy bran and germ. (Behall, p. 596.)

5. Claim 5:

(a) “The coarse fraction of claim 1 wherein enzymes in the bran and germ are inactivated to stabilize the whole grain wheat flour.”
Hiroyuki discloses heating the bran and germ components to “a temperature of 100-180º C.” (Hiroyuki, p. 6 at [0009].) Hiroyuki discloses that roasting the bran makes it edible, while heating the germ is a “shelf-life stabilization process [that] can improve the texture and provide an antioxidant property to the wheat germ to prevent rancidity.” (Hiroyuki, p. 6 at [0008].)

Hiroyuki’s stabilization process is similar to the process taught in the ’298 patent specification. The ’298 patent describes its stabilization process as follows:

In further embodiments, enzymes found within the bran and germ of the whole grain flour and/or coarse fraction are inactivated in order to stabilize the whole grain flour and/or coarse fraction. It is contemplated by the present invention that inactivated may also mean inhibited, denatured, or the like. Stabilization is a process that uses steam, heat, radiation, or other treatments to inactivate the enzymes found in the bran and germ layer. Naturally occurring enzymes in the bran and germ will catalyze changes to compounds in the flour, adversely affecting the cooking characteristics of the flour and the shelf life. Inactivated enzymes do not catalyze changes to compounds found in the flour, therefore, flour that has been stabilized retains its cooking characteristics and has a longer shelf life.

(’298 patent, 8:1-11.) The ’298 patent goes on to describe a two-stream milling technique in which the gap mill’s “high tip speed generates heat” which causes “a decrease in the microbial load of the coarse fraction as shown in Fig. 10.” (’298 patent, 8:21-24.)
The heating disclosed in Hiroyuki will deactivate enzymes, just as the
heating in the ’298 patent deactivates enzymes in its coarse fraction. Accordingly,
the limitation of claim 5 is disclosed in Hiroyuki.

6. Claim 6:

(a) “The coarse fraction of claim 1 wherein the coarse fraction has an
oxygen radical absorption capacity of at least 7,400 micromole
TE/100 g.”

The ’298 patent discloses, at Fig. 9b, that a coarse fraction made from Platte
variety wheat, milled to the fine particle size of the invention, will yield an
antioxidant capacity of 7,400 micromole TE/100g. The ’298 specification does not
teach specially treating or otherwise modifying the wheat to achieve this capacity;
it simply discloses isolating and grinding a coarse fraction comprised of primarily
bran and germ from Platte variety wheat.

Hiroyuki does not disclose using a particular variety of wheat to prepare its
course fraction. However, Behall explicitly discloses using “hard white winter
wheat (Platte variety)” for its whole grain wheat flour. (Behall, p. 593, footnote in
Table 3.) It would have been obvious to one of skill in the art to use the wheat
variety disclosed in Behall to prepare the coarse fraction disclosed in Hiroyuki. As
discussed above, one of skill in the art would have been motivated to combine the
course fraction milling process of Hiroyuki with Behall to make the flour disclosed
in Behall to encourage greater consumption of the healthy bran and germ. One of
skill would have been further motivated to use the particular wheat variety disclosed in Behall (Platte variety) because Hiroyuki does not disclose a particular variety, so this would be the only wheat variety disclosed in the two references.

Moreover, it was known at the time of the invention that “White wheat has a light golden color and milder flavor than the red wheat traditionally used in most American wheat-based products.” (Ex. 1011, LaBell 1995 article, p. 2.) This known advantage would have further motivated one of skill to use the hard white Platte variety wheat disclosed in Behall. Thus, it would have obvious to one of skill in the art to combine Hiroyuki and Behall, and such a combination would have necessarily achieved the antioxidant capacity called for in claim 6.

VII. CONCLUSION

For the reasons set forth above, Petitioner submits that it has established a reasonable likelihood that it will prevail on each of the claims of the ’298 patent. Accordingly, this Petition should be granted, *inter partes* review should be instituted, and all the claims of the ’298 patent should be found unpatentable and cancelled.

Respectfully submitted,

Date:  April 8, 2014

/Mark G. Knedeisen/
Mark G. Knedeisen (Reg. No. 42,747)
K&L GATES LLP
CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of April, 2014, a true and correct copy of the foregoing REQUEST FOR INTER PARTE REVIEW was served in the manner indicated on the following attorney of record:

VIA FEDERAL EXPRESS OVERNIGHT DELIVERY

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In a key development regarding Inter Partes Review (“IPR”) procedure, on September 1, 2015, the Patent Trial and Appeal Board (the “Board”) issued an order that lays the groundwork for how the Board may address cases on remand from the Federal Circuit.

The Federal Circuit on June 16, 2015, issued an opinion reversing the Board’s claim construction for three terms at issue in two IPR proceedings (IPR2012-00026 and IPR2013-00109). Microsoft Corp. v. Proxyconn, Inc., 789 F.3d 1292 (Fed. Cir. 2015). Consequently, the Federal Circuit also vacated the Board’s unpatentability determination for certain of the claims at issue and remanded both cases to the Board for proceedings consistent with the Federal Circuit’s opinion. These cases have been closely watched because they represent the first reversal by the Federal Circuit in an AIA post-grant proceeding and, more importantly, the procedures for remand are not specifically outlined. The Federal Circuit’s mandate issued on August 25, 2015, and it appears that the parties unsuccessfully tried to negotiate a post-remand procedure before contacting the Board. As a result, the petitioner contacted the Board to resolve the dispute between the parties. The petitioner proposed that each party file a new brief, limited to 15 pages, to address the impact of the Federal Circuit’s opinion on the patentability determination. The patent owner proposed that additional briefing was not needed and would delay the proceeding. Notably, the Board remarked that the parties agreed “that the Board would have to reconsider the evidence on remand in light of the Federal Circuit’s rulings on claim construction and would not be in a position to decide the case for either party without further analysis.”

The Board ultimately sided with the petitioner’s proposal and ordered additional briefing by each party, limited to 15 pages, with both briefs being due at the same time. The Board further ordered that the briefs should address the effect of the Federal Circuit’s opinion on the patentability of the affected claims. Finally, the Board ordered that “no new prior art references or other evidence shall be presented by either party beyond that considered in the Board’s Final Written Decision.”

It is possible that a different Board may propose a different procedure on remand, but this decision at least is informative of how the Board may treat further remanded cases. The provision for simultaneous briefing is interesting in that the Board is giving each party one opportunity to set forth its best case rather than a traditional adversarial briefing format.

Please click on the following for the Federal Circuit Opinion and the Board Decision.
USPTO Announces Second Round of AIA Rule Changes

By Jason A. Engel, Benjamin E. Weed, and Philip A. Kunz

Summary

On August 20, 2015, the Patent and Trademark Office published, in the Federal Register, a set of “Amendments to the Rules of Practice for Trials Before the Patent Trial and Appeal Board” that would amend 37 CFR Part 42. Among the ten topics encompassed by the proposed amendments, two noteworthy changes include: (1) new evidence allowed in Patent Owner’s preliminary response; and (2) briefing length limited by word count rather than page limits. Each topic is discussed in turn below, with our initial practical TAKEAWAYS for each respective section.

The period for public comment on the proposed amendments is open until October 19, 2015.

Practical ramifications of new proposed rule changes:

1. Patent Owner Preliminary Responses

TAKEAWAYS: Patent Owners will start submitting declarations with preliminary responses, which means Petitioners will start to request leave to file preliminary replies and additional evidence. Budgets for work prior to institution will need to increase accordingly.

2. Word Count Dictating Submission Lengths

TAKEAWAYS: Claim charts have become a more viable way to present arguments, although the loss of word count from repeating claim language may not make them worthwhile. In addition, the Office’s comments make it clear that similar claims are likely appropriately treated with brevity to save words, focusing instead on combinations and the first application of art to claims. This change will also allow the parties to focus on making arguments that fit the new word count limit rather than arbitrarily having to pare back arguments because they spill over onto a new page. This should allow the parties to be more efficient in the preparation of briefs.

3. New Rule 11-Type Certification

TAKEAWAYS: For practitioners admitted to AIA proceedings pro hac vice, the Rule 11-type certification requirement presumably would impact subsequent requests for pro hac vice admission.

4. Claim Construction Standard

TAKEAWAYS: Petitioners will need to determine, prior to the Petition, the expiration date of the patent. If expiration is imminent, Petitioners should perform a full Phillips-type claim construction analysis in the Petition. If the expiration date is in dispute, Petitioners should consider arguing under both a Broadest Reasonable Interpretation (“BRI”) and a Phillips-type construction.
USPTO Announces Second Round of AIA Rule Changes

5. **Motions to Amend**

**TAKEAWAYS:** It is possible that the duty of candor may be usable to curtail amendments by submitting art to the Patent Owner even after institution, based on preliminary response arguments and evidence. Petitioners should consider sending communications to Patent Owners enclosing art that addresses arguments raised in the preliminary response.

6. **Additional Discovery**

**TAKEAWAYS:** It is still of paramount importance that the requested discovery be narrow and very likely to result in relevant, important information, particularly when it pertains to confidential information about the Petitioner’s (accused infringer’s) success.

7. **Real Party in Interest**

**TAKEAWAYS:** Real party in interest issues should be fleshed out prior to filing the Petition. As always, make sure to take as conservative an approach as possible with regard to the one-year limit to file.

8. **Multiple Proceedings**

**TAKEAWAYS:** Petitions filed about patents already the subject of AIA review should explain, in as much detail as possible, the circumstances that warrant instituting an additional review.

9. **Oral Hearing**

**TAKEAWAYS:** The Board will entertain requests for oral hearing that deviate from the norm in terms of technology requests or oral testimony. These requests should be made in the request for oral hearing. Also, the date for exchange of demonstratives has been moved back to seven (7) business days before oral hearing, giving the parties more time to resolve objections. Objectionable slides will thus likely be more difficult to present in oral hearings.

10. **Other General Topics (Office-Stated “Catchall”)**

**TAKEAWAYS:** It appears likely that the Office will implement a single judge-institution pilot program. While preliminary responses remain optional, the Office is apparently encouraging parties to use them to flesh out issues as early as possible. The Office appears comfortable with the way it is currently managing its docket. Finally, practitioners should be aware that the Office intends to use the Office Patent Trial Practice Guide as a tool for implementing changes to AIA trials, and that any updates to the Office Patent Trial Practice Guide are forthcoming.

Below are highlights from the Office's proposals for each respective section:

1. **Patent Owner Preliminary Responses**

The Office proposes amending the rules to allow Patent Owners to submit new testimonial evidence (as opposed to declarations or depositions generated during other proceedings) with preliminary responses. Under the proposal, Petitioners would not have a right of cross-examination before institution due to time constraints. To address the potential inequities, factual disputes would be resolved in favor of the Petitioner for purposes of institution only. The Office also proposes to amend the rules to allow Petitioners to seek leave to file a single reply to a preliminary response, including submitting new testimonial evidence with the preliminary reply.
USPTO Announces Second Round of AIA Rule Changes

2. **Word Count Dictating Submission Lengths**

The Office adopted word count limits rather than page limits for: (i) Petitions, (ii) preliminary responses; (iii) Patent Owner responses; and (iv) reply briefs. Petitions will no longer need be reviewed to determine whether claim charts contain argument. The Office declined to adjust word count limits based upon the number of claims challenged since the number of grounds most often determines the length of a Petition.

The page limits to word count conversions are:

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<th>Words</th>
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<tr>
<td>Replies to Patent Owner Responses</td>
<td>25</td>
<td>5,600</td>
</tr>
</tbody>
</table>

3. **New Rule 11-Type Certification**

The Office proposed to amend 37 C.F.R. § 42.11 (regarding the duty of candor) to require a Rule 11-type certification for all papers filed in proceedings before the Office. This proposed amendment would include provisions for sanctions in connection with such papers, which misconduct could be reported to the OED. USPTO Director Michelle Lee stated in her blog that such a requirement would “give the USPTO a more robust means with which to police misconduct.”

4. **Claim Construction Standard**

The Office adopted the comments favoring the retention of a broadest reasonable interpretation (“BRI”) claim construction standard. The Federal Circuit has affirmed that standard in *In re Cuozzo Speed Techs., LLC* based on the history of that standard in the PTO and the ability to amend claims.¹ Notwithstanding, the Office proposed that a Phillips-type claim construction standard is appropriate for patents that will expire before the issuance of a final written decision. The Office found it unworkable to allow a Phillips-type construction where Patent Owners elect to forego claim amendments, but solicited comments regarding solutions for where a Patent Owner chooses to forego the right to amend claims in AIA proceedings.

5. **Motions to Amend**

The Office’s position is that the Patent Owner bears the initial burden to establish a *prima facie* case of patentability over the art of record and any art submitted pursuant to the duty of candor or supplied by the Petitioner. The Patent Owner must also show why the amended claims are equal in scope or narrower than the issued claims in all respects, and that the substitute claims must be narrower than the issued claims in all respects. Once a *prima facie* showing of patentability is made, the burden shifts to the Petitioner to show unpatentability.

Among several comments related to Motions to Amend, the Office:

- Does not intend to seek the assistance of the examining corps with regard to motions to amend.

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USPTO Announces Second Round of AIA Rule Changes

- Declined to change the rules regarding the number of substitute claims allowed or the showings required to submit multiple substitute claims.

- Addressed Patent Owner estoppel in response to a comment that 37 C.F.R. § 42.73(d)(3) precludes a Patent Owner from obtaining a claim that could have been made in a motion to amend. The Office noted that the rule does not prohibit such action; instead, it prohibits obtaining a claim that is not patentably distinct from a finally refused or canceled claim.

- Noted that a Patent Owner, who continues to enforce claims it voluntarily cancelled before obtaining a final written decision, may be subject to sanctions in the district court, and may face investigation by the OED, but that the Office would nonetheless not cancel claims before issuance of the final written decision.

6. Additional Discovery

The Office will continue to apply the factors from *Garmin v. Cuozzo*, when considering whether to allow for additional discovery. The Office also noted that the *Garmin* factors are flexible, and that the parties are permitted to present different factors as appropriate on a case-by-case basis. The one-year trial schedule will still be emphasized.

The Office declined an invitation to permit discovery of evidence of non-obviousness (e.g., commercial success) in all cases. The *Garmin* factors will continue to govern requests for discovery of such evidence on a case-by-case basis. The Office agreed that some showing of a nexus between the claims of the patent and an accused product is necessary in the interest of justice. The Office also declined to adopt a rule to permit interrogatories or document requests in all cases.

7. Real Party in Interest

The Office will allow Patent Owners to bring challenges based on real party in interest at any time during the proceeding, but prefers such challenges to occur early in the proceedings. The challenges will be decided on a case-by-case basis. The Office also declined to require Petitioners to provide, for example, joint defense agreements or the identification of parties participating in the preparation of a Petition. The additional discovery rules will continue to govern proceedings. Clerical errors in identifying real parties in interest may be corrected without affecting the filing date, but allowing Petitioners to correct other errors would violate 35 U.S.C. § 312(a), which requires a Petition to identify all real parties in interest without qualification. The Office also clarified that the burden of proof with regard to standing lies with the Petitioner.

8. Multiple Proceedings

The Office noted that the Board has broad discretion in managing multiple proceedings (AIA trials, reexaminations, and reissues) directed to a single patent. The Board declined to institute a rule requiring Petitioners to self-identify repetitive challenges. Thus, the Office does not propose to amend the rules regarding managing multiple proceedings at this time. The Office will continue to determine whether to stay reexamination proceedings or AIA trials when co-pending proceedings exist on a case-by-case basis taking into consideration the overlap of issues and the stage of the co-pending proceedings to try to avoid duplicative work for the Office. Consolidation and allowing follow-on proceedings will also continue to be decided on a case-by-case basis. It

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2 IPR2012-00001. These factors generally address whether (1) a party possesses more than a possibility/allegation, (2) a party is seeking underlying litigation positions, (3) the equivalent information can be otherwise generated, (4) the requests are facially clear, and (5) the requests are not overly burdensome to answer.
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declined to bind all Petitioners to the outcome of a first-filed Petition, and also declined to apply a “rebuttable presumption” of duplication if overlapping prior art is raised in a second Petition.

9. Oral Hearing

The Office will continue to consider requests for oral hearings on a case-by-case basis, but does not expect that oral testimony is needed in every case where there is conflicting testimony. The format for the presentation of live testimony is left up to the panel.

The Office changed its rules to require the exchange of demonstrative exhibits seven (7) business days before the final hearing date.

The Office is planning to update its ability to hold hearings in regional offices.

In response to a request for a rule that parties be allowed to obtain recesses in oral hearings to, for example, discuss issues with experts, the Office noted that panels will hear requests for recess on a case-by-case basis.

10. Other General Topics (Office-Stated “Catchall”)

• The Office did not adopt any rule change regarding the Board’s discretion to determine issues of unpatentability even after settlement.

• The Office is not going to change its use of partial institution as a docket management tool. It understands the different impacts of using references in different statutory classes, particularly where some references may be sworn behind, and will continue to try to strike an appropriate balance with partial institutions.

• The Office may separately seek comments on a pilot program under which institution decisions will be made by a single Administrative Patent Judge (“APJ”), with two additional APJs being assigned for the trial phase.

• The Office requested further comment on 37 C.F.R. § 42.53(d)(4) regarding deposition practice, that is, reducing the amount of lead time for which a deposition notice is required.

• The Office declined to make preliminary responses mandatory with regard to certain issues (claim construction and antedating), but noted that the new ability to file testimonial evidence (see Section 1) may motivate Patent Owners to address such issues early in the proceedings.

• The Office also noted that it intends to amend the Office Patent Trial Practice Guide in an unspecified way with regard to additional discovery, live testimony, and confidential information. We will provide an update if and when those changes are implemented.
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Patent Office Issues New Examination Guidelines for Subject Matter Eligibility

U.S. IP Procurement and Portfolio Management Alert

By Aaron J. Morrow, Mark G. Knedeisen, Christopher G. Wolfe

Introduction

On December 16, 2014, the United States Patent and Trademark Office (PTO) published new guidelines for determining patent eligibility under 35 U.S.C. § 101. These guidelines do not have the force of law, but nevertheless establish the specific procedures that the Examiners apply during examination of patent applications. These guidelines are effective immediately, supersede previous guidelines regarding nature-based products, and supplement previous guidelines regarding abstract ideas. Based on Supreme Court decisions, the new guidelines set forth an analytical framework that is designed to "promote[] examination efficiency and consistency across all technologies" and is particularly relevant for patents directed to natural products, software, and business methods.

Background

Under U.S. patent law, only new and useful processes, machines, articles of manufacture, and compositions of matter are eligible for patenting. 35 U.S.C. § 101. However, even if a patent claim falls within one of the listed categories, it is not patent eligible if it is directed to a law of nature, natural phenomenon, or abstract idea. The eligibility requirement is in addition to the well-known requirements that an invention be novel and nonobvious to be patentable. See 35 U.S.C. §§ 102-103.

The Supreme Court has decided several cases recently that help define the scope of these judicially recognized exceptions. In Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. __, 132 S.Ct. 1289 (2012), the Supreme Court employed a two-part framework (now referred to as the "Mayo two-part framework") to determine whether a patent claim is ineligible for falling into one of the exceptions. The first step is to determine whether the claim is directed to one of the exceptions, i.e., a law of nature, natural phenomenon, or an abstract idea. If not (and the claim falls into one of the statutory patent-eligible categories of § 101), the claim is patent eligible. If the claim is directed to one of the judicially recognized exceptions, the second part of the analysis examines whether the claim recites additional elements that amount to “significantly more” than the judicial exception. Using this framework, the Supreme Court concluded that the claimed method at issue in Mayo of assisting doctors who use thiopurine drugs to treat patients with autoimmune diseases was

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2 35 U.S.C. § 101 states as follows: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."
patent ineligible because it was directed toward a natural law. One year later, the Supreme Court similarly concluded that a patent claim directed to isolation of a naturally occurring DNA segment was a patent-ineligible product of nature. See Association for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. __, 133 S. Ct. 2107 (2013) (the patent also claimed a non-naturally occurring DNA segment, which the Supreme Court found patent eligible).

In the 2014 term, the Supreme Court applied the Mayo two-part framework in Alice Corp. v. CLS Bank, 573 U.S. __, 134 S.Ct. 2347 (2014) relating to the abstract idea exception, which is often an issue for software and business method inventions. The patent at issue in Alice related to computer systems for mitigating settlement risk for financial transactions. First, the Supreme Court determined that even though the claims at issue were directed to one of the categories in § 101 (i.e., methods and machines), they fell within the abstract idea exception because the concept of intermediate settlement is “a fundamental economic practice long prevalent in our system of commerce.” Second, the Supreme Court determined that the claims did not recite significantly more than applying the abstract idea, even though they recited computer systems for performing the intermediate settlement, because the functions performed by the generically claimed computer were “well-understood, routine, [and] conventional.”

The Alice decision followed a 2010 decision, Bilski v. Kappos, 561 U.S. 593 (2010), where the Supreme Court found that a claim directed to hedging risk was also a patent-ineligible abstract idea. So far the Supreme Court has not precisely defined what constitutes an abstract idea by choosing “not [to] labor to delimit the precise contours . . . .” Alice, 134 S.Ct. at 2357, although it has provided examples, namely “preexisting, fundamental truths that exist in principle apart from any human action” and “fundamental economic practices long prevalent in our system of commerce.” Neither the Alice nor Bilski decisions recognized a per se excluded category of subject matter, such as software or business methods; nor did they impose any special requirements for their eligibility. Since the Alice decision, however, many lower courts and the PTO in post-issuance proceedings have found software patent claims invalid.3

Following the Mayo, Myriad, and Alice decisions, the PTO issued earlier guidelines for its Examiners. In March 2014, the PTO issued guidelines for natural products based on Mayo and Myriad. These guidelines required that the Examiner consider whether the claim recites or involves a nature-based product. If the answer was “yes” or “maybe,” the Examiner was required to subject the claim to further analysis using a factor-based weighing test strongly focused on whether structural differences are present in the claimed nature-based product relative to its naturally occurring form. These guidelines also provided several example claims in an attempt to illustrate how the factor-based weighing test should be applied.

In June 2014, the PTO issued guidelines based on the Alice decision. These guidelines cemented that the Examiners are to apply the Mayo two-part framework for patent claims that implicate abstract ideas. However, since the Supreme Court did “not labor to delimit the precise contours” of an abstract idea, the guidelines only provided examples from case law

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of abstract ideas and listed generally types of claim limitations from *Alice* that may be enough to qualify as “significantly more” when recited in a claim with an abstract idea to transform the claim’s patent eligibility.

The new December 2014 guidelines supersede the March 2014 guidelines regarding nature-based products and supplement the June 2014 guidelines regarding abstract ideas. Regarding natural products, the new guidelines are significantly less restrictive relative to the previous guidelines. With respect to abstract ideas, the guidelines attempt to provide clarification by citing and summarizing relevant court decisions. Subject matter eligibility is an obstacle to patentability even if the invention is novel and non-obvious, so these new guidelines merit consideration for applicants and practitioners in any technology area.

**Natural Products Guidelines**

The guidelines regarding natural products include a noteworthy change in how claims are analyzed to determine patent eligibility. The approach established by the previous guidelines required that a factor-balancing test be performed for a claim if the claim “recites or involves” a natural product. In contrast, the new guidelines seemingly retract the broad applicability of this language by replacing “recites or involves” with “directed to.” The new guidelines also present a “streamlined” analysis in which a claim that clearly does not completely foreclose use of the natural product does not need to be subjected to a full analysis of patent eligibility.

In addition, the new guidelines explicitly state that a claim directed to a natural product is first analyzed to determine whether the claimed nature-based product has markedly different characteristics based on structure, function, and/or properties. The claim is further scrutinized to determine if it includes meaningful additional elements only if the nature-based product recited by the claim does not have markedly different characteristics.

This evaluation approach is also less strict than that established by the previous guidelines because functionality is considered in the analysis of “markedly different.” The new guidelines explicitly state:

>This revised analysis represents a change from prior guidance, because now changes in functional characteristics and other non-structural properties can evidence markedly different characteristics, whereas in the March 2014 Procedure only structural changes were sufficient to show a marked difference.

The impact of this change is readily seen in an example given in the new guidelines; contrary to the previous guidelines, which prohibited patent eligibility of naturally occurring compounds that were merely recited as “purified” or “isolated” in the claim, the new guidelines state that a purified or isolated naturally occurring product will be patent eligible when there is a resultant change in characteristics that shows it is markedly different from the naturally occurring form.

Another important shift in the analysis of natural products under the new patent eligibility guidelines is related to combinations of natural products. The new guidelines establish that the combination as a whole must be assessed to determine if it is markedly different from a product of nature. Under the old guidelines, evaluation of a combination of natural products was performed by individually comparing each component part to its naturally occurring form, and the presence of other natural products in the combination was not given consideration.
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Yet another change presented by the new natural product guidelines is concerned with method claims. The previous patent eligibility framework was more lenient regarding method claims relative to product claims but nevertheless required that a factor-weighing test be applied to method claims reciting or involving a product of nature. In the new guidelines, a method claim directed to a natural product is not even subjected to the initial analysis of whether the claim is markedly different; instead, a process claim is now considered patent eligible unless it is written in such a way that it is not different from a product claim. The new guidelines provide an example of such a claim, “a method of providing an apple,” which shows that a method claim must be completely lacking in additional recitations in order to be ineligible for a patent.

The natural products guidelines also provide several example claims with corresponding application of the new framework. These examples demonstrate that the new guidelines are a scaled-back approach relative to the previous guidelines. For example, the new guidelines discuss a product claim reciting “a beverage composition comprising pomelo juice and an effective amount of an added preservative.” This claim is patent eligible under the new guidelines because the property of slower spoiling, which is contributed by the preservative, is markedly different from properties of the juice by itself in nature. Under the previous guidelines, such a claim was typically considered ineligible because the individual components of the combination were analyzed separately, and some preservatives are natural products. As another example, a method claim reciting “a method of treating breast or colon cancer, comprising administering an effective amount of purified amazonic acid to a patient suffering from breast or colon cancer” is patent eligible under the new guidelines. The claim does not even require an analysis of “markedly different” because the claim is focused on a process of practically applying the product to treat a particular disease. Under the previous guidelines, such a claim was typically rejected as patent ineligible unless it also recited a dosage and/or a time period of administration.

Abstract Ideas

The new guidelines regarding abstract ideas are not significantly different from the June 2014 guidelines but, nonetheless, may lead to practical differences in examination outcomes.

First, the new guidelines tighten the application of the first part of the Mayo analysis. The June 2014 guidelines stated that a claim was directed to an abstract idea if the claim included an abstract idea or if an abstract idea was present in the claim. Because most any claim involves an abstract idea at some level, this approach made it very difficult to clear the first step of the Mayo analysis, even for claims that are clearly eligible. Under the new guidelines, the PTO adds a preemption factor to the first part of the Mayo analysis. Examiners are instructed to consider both whether a claim recites or describes an abstract idea and also whether the claim will “tie up” or preempt the abstract idea. Additionally, the streamlined analysis described above may also be applied to abstract ideas. Claims that may or may not be directed to an abstract idea may be considered eligible if the claim, “when viewed as a whole, clearly does not seek to tie up any [abstract idea] such that others cannot practice it.”

Second, the new guidelines encourage examiners and applicants to apply the Mayo analysis by analogy to previously decided Supreme Court and Federal Circuit cases. The new guidelines provide extensive bulleted lists of examples from prior cases for both parts of the Mayo framework, including 14 identified abstract ideas (first step of Mayo) and claim
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elements that are and are not significantly more than an abstract idea or other judicial exceptions (second step of Mayo). Further, the new guidelines include an extensive section summarizing Supreme Court and Federal Circuit precedent on subject matter eligibility. Taken as a whole, these factors suggest that the PTO is encouraging applicants and examiners both to argue abstract-idea eligibility issues by analogy to prior case law.

Conclusions and Practice Tips

The new guidelines are very likely to reduce the number of non-statutory subject matter rejections for natural products. The new guidelines also provide a much larger set of examples relative to the prior guidelines, which should provide more certainty in whether a claim reciting a nature-based product is patent eligible or not. In this regard, the examples in the previous guidelines were, for the most part, extreme claims that left doubt with respect to where the line was drawn for eligibility. Therefore, the new guidelines should provide applicants and practitioners with more certainty about whether an invention is patent eligible and how to claim the invention such that the claims are not rejected under 35 U.S.C. § 101 or can easily overcome a rejection under this basis. Applicants and practitioners should reference the many example claims provided by the new natural products guidelines and identify the examples most similar to the invention. This approach can ensure that a newly drafted application contains subject matter that is patent eligible and can allow pending applications to have claim amendments that avoid or overcome patent eligibility rejections.

It is too soon to tell what substantive effect the new guidelines will have on the number of non-statutory subject matter rejections for software and business methods. It does appear that claims that clearly fail to preempt or tie up an abstract idea may be easier to move through the PTO than they were previously. Also, the extensive summaries of example claims and claim elements falling on both sides of the eligibility line give additional form to the eligibility analysis for abstract ideas that did not exist previously. When faced with an abstract idea-type rejection, applicants may consider arguments on lack of preemption and arguments based on analogies to the various examples in the guidelines.
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Software Is Still Patentable, With Caveats

By Christopher G. Wolfe, Mark G. Knedeisen

On Thursday, the Supreme Court issued its long-awaited opinion on software and business method patents in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l, et al.* In a unanimous opinion written by Justice Thomas, the Court held all of Alice’s claims to be ineligible for patenting. The decision tightens the standards for patent eligibility but does not eliminate software patents or computer-implemented business methods. Although the Court did not precisely define a patent-ineligible abstract idea, it did provide a clear framework for determining the patent eligibility of software-implemented inventions along with a few clues for applying the framework.

The Claims

The claims in *Alice* were directed to computer-implemented methods for mitigating settlement risk in financial transactions. According to the claims, a computer maintained a set of shadow debit and credit records for various parties. When a transaction request was received, the computer evaluated the transaction request. The requested transaction was approved only when there was sufficient value in the counter parties’ shadow records.

The Court’s Analysis

The Court evaluated the claims under the two-part test set forth in its 2012 decision, *Mayo v. Prometheus*. According to the *Mayo* test, a claim is first reviewed to determine whether it is directed to a patent-ineligible concept, such as a law of nature, natural phenomena, or abstract idea. If the claim is directed to a patent-ineligible concept, then the elements of the claims are considered “both individually and as an ordered combination” to determine whether additional elements ‘transform the nature of the claim’ into a patent-eligible application. Applying the first part of the test, the Court held that the claims in *Alice* were...
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directed to the abstract idea of “intermediated settlement.”6 Although the Court declined to “delimit the precise contours of the ‘abstract idea’ in this case,” it likened the claims to the claims at issue in *Bilski v. Kappos*, which were directed to “the basic concept of hedging.”7 Because both intermediated settlement and hedging are “fundamental economic practice[s] long prevalent in our system of commerce,” both are abstract ideas. Under the second part of the test, the Court held that “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”8

What Is New?

While it can be viewed as a straightforward application of the *Mayo* and *Bilski* precedents, the decision in *Alice* clarified the patent-eligibility landscape in a number of ways. Most significantly, it confirms that the two-part framework from *Mayo* applies to abstract ideas, like the software claims in *Alice*, and to natural phenomena, like the medical method in *Mayo*. The *Alice* decision also clarifies and develops the *Mayo* framework in important ways regarding the definition of an abstract idea and what is necessary for a claim reciting an abstract idea to be patent-eligible.

Although the Supreme Court in *Alice* declined to give a complete definition of an abstract idea, it provided examples. The Court suggested that “preexisting, fundamental truths that exist in principle apart from any human action” and “fundamental economic practices long prevalent in our system of commerce” are ineligible abstract ideas.9 Examples of “fundamental economic practice[s]” include the *Bilski* hedging claims, as well as the intermediated settlement claims from *Alice*.10 By definition, both of these examples lack novelty; fundamental truths are “preexisting” and fundamental economic practices are “long prevalent in our system of commerce.” The Court did not explicitly hold that all abstract ideas lack novelty, but the law may be heading in that direction.

Regarding the second part of the *Mayo* framework, the Court made two important clarifications. First, it held that combining an abstract idea with a general purpose computer, without more, does not make the abstract idea patent-eligible,11 although the Court suggested that computer limitations could make an abstract idea patent-eligible if the claim “purport[s] to improve the functioning of the computer itself” or “effect[s] an improvement in any other technology or field.”12 Second, the Court settled a twenty-five-year-old conflict over whether a proper patent-eligibility analysis considers a claim element-by-element or as a whole. It held that both analyses are required, which is likely positive for patent applicants and owners because it affords multiple opportunities to show that a claim directed to an abstract idea is patent-eligible under the second part of the framework.13

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6 *See Alice Corp.*, 573 U.S. _____, slip opinion at 7.
7 *See Alice Corp.*, 573 U.S. _____, slip opinion at 8-9; Bilski v. Kappos, 561 U.S. 593 (2010).
8 *See Alice Corp.*, 573 U.S. _____, slip opinion at 13.
9 *See Alice Corp.*, 573 U.S. _____, slip opinion at 10 (internal citations omitted).
10 *See id.* at 9.
11 *See id.* at 13 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.").
12 *See id.* at 15.
13 *See Parker v. Flook*, 437 U.S. 584, 594 (1978) ("[O]nce that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention."); *Diamond v. Diehr*, 450 U.S. 175 (1981) ("In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole."); *Alice Corp.*, 573 U.S. _____, slip opinion at 7 ("To answer that question, we consider the
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What Does It Mean For Patent Portfolios?

Many non-business method software claims are likely to remain patent-eligible even in view of the *Alice* decision. As we predicted last year, claims that recite improvements to computer technology or non-computer physical features, such as sensors, motors, etc. are still very likely to be patent-eligible.\(^{14}\) Although not specifically mentioned in the Alice decision, claims where computer or technological implementation is essential are also likely to remain patent-eligible.\(^{15}\)

Claims directed to computer-implemented business methods are likely to be patent-eligible if they recite a non-conventional use of a computer or improvement to computer or other technology. Claims that recite a business method implemented by a generic computer are currently in a gray area because the *Alice* Court did not hold that all business methods or methods for organizing human activity are abstract ideas.\(^{16}\) There is an argument that claims of this type are patent-eligible if they are directed to something other than a “pre-existing fundamental truth” or a “fundamental economic practice.” Subsequent case law will color the gray area.

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\(^{14}\) See *Alice Corp.*, 573 U.S. _____, slip opinion at 15; Wolfe, et al., Cyberspace Lawyer at p. 8.

\(^{15}\) See Wolfe, et al., Cyberspace Lawyer at p. 8; *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319 (Fed. Cir. 2010); *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010).

\(^{16}\) See *Alice Corp.*, 573 U.S. _____, slip opinion at 9-10, *Alice Corp.*, U.S. _____, slip opinion at 1 (Sotomayor, J., concurring).
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Software Patents Set for Supreme Court Consideration

By Christopher G. Wolfe, Mark G. Knedelsen

The Supreme Court is set to weigh in on the muddled law of software patent eligibility. On Friday, December 6, the Supreme Court granted a petition for certiorari in Alice Corp. Pty. Ltd. v. CLS Bank Int'l, et al.\(^1\) CLS is an appeal of the famously splintered en banc decision of the Federal Circuit from May of this year.\(^2\) The Supreme Court is expected to decide CLS during the current term, which ends in June of 2014. Also on Friday, the Supreme Court put off a final decision on a certiorari petition in another software patent case that raises similar issues, WildTangent, Inc. v. Ultracommial, LLC, et al.\(^3\)

In CLS, the Supreme Court will address the same issues that bedeviled the Federal Circuit below and have continued to torment the Federal Circuit, the District Courts, and the U.S. Patent Office since then. Specifically, the Supreme Court will consider how to determine whether a software-related claim is directed to a patent-eligible invention or an ineligible abstract idea. The claims at issue in CLS are directed to software-implemented business methods for mitigating settlement risk in certain financial transactions. In the claims, a computer\(^4\) maintains a set of shadow credit and debit records. The computer evaluates transaction requests based on the shadow records. A transaction request is approved only when it is supported by sufficient value in the shadow records.\(^5\) As we reported over the summer, the Federal Circuit split down the middle with five of the ten judges concluding that all of the claims were ineligible for patenting and the remaining five judges concluding that, at least, the system claims were patent eligible.\(^6\) No test or evaluative framework won the votes of more than half of the judges.

The Supreme Court will have an opportunity to consider the two primary tests fashioned by the Federal Circuit below, including the approach set forth in Judge Lourie’s concurrence (the “Lourie approach”) and the approach set forth in Chief Judge Rader’s concurrence (the “Rader approach”). According to the Lourie approach, joined by a total of five judges, the focus is on identifying the fundamental concept or abstract idea applied by a claim and then determining whether the claim would preempt it.\(^7\) Judge Lourie concluded that the claims were ineligible for patenting, as they would preempt the abstract idea of “reducing settlement risk by facilitating a trade through third-party intermediation.”\(^8\) The Rader approach, joined by a total of four judges, asks whether a claim, as a whole, is restricted to an application of an

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\(^1\) Docket No. 13-298, 571 U.S. ____.

\(^2\) 717 F.3d 1269 (Fed. Cir. 2013).

\(^3\) Docket No. 13-255.

\(^4\) The system claims at issue clearly require computer implementation. The Federal Circuit split as to whether the method and computer-readable medium claims also require computer implementation.

\(^5\) See 717 F.3d at 1289.


\(^7\) See CLS, 717 F.3d at 1282.

\(^8\) See id. at 1286.
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abstract idea, or is simply a recitation of the abstract idea itself. Because the system claims were limited to a computer-implemented application, Judge Rader would have found them patent eligible.9

Since the Federal Circuit’s decision in CLS, the courts and the U.S. Patent Office have struggled to apply the law consistently. At the Federal Circuit, the Lourie and Rader approaches converged in Ultramercial, Inc. v. WildTangent, Inc., in which both judges concluded that claims directed to Internet advertising were patent eligible.10 In other post-CLS cases, however, the two approaches have reached opposite conclusions. The U.S. Patent Office has also had difficulty applying the law consistently. In the new covered business method (CBM) reviews, the Patent Office’s Patent Trial and Appeal Board (PTAB) has, in different cases, reached seemingly contradictory conclusions.11

The Supreme Court’s decision to hear CLS, while putting off a decision on WildTangent, provides some clues as to how the Supreme Court might ultimately rule. First, the decision to take CLS makes it more likely that the Supreme Court will provide definitive guidance on software-implemented business methods. The system claims in CLS recite computer hardware that is explicitly integrated into the recited actions. The Supreme Court’s decision should provide an indication of whether this, without more, is enough to confer patent eligibility. Second, at least for now, the Supreme Court will not disturb the Federal Circuit’s ruling in WildTangent that patent claims should only rarely be found ineligible on the pleadings. As we explained in our webinar held on November 13, 2013, if the Supreme Court does later agree to hear WildTangent, it will likely be to address this procedural issue.12

Between now and the Supreme Court’s decision in CLS sometime next year, it is prudent for applicants to continue to focus on claim drafting and prosecution strategies directed to the areas of overlap between the Rader and Lourie approaches, for example, as described in our summer alert and November webinar.13

9 See id. at 1309.
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OVERVIEW

Mr. Knedeisen's practice embraces a variety of intellectual property issues, with a particular emphasis on patent law.

**Patent Litigation:** A substantial portion of Mr. Knedeisen's practice involves representing clients in patent infringement litigation. Mr. Knedeisen was part of K&L Gates' core team representing Carnegie Mellon University (CMU) against Marvell Technology Group, Ltd. in the Western District of Pennsylvania where, in December 2012, a jury awarded CMU $1.17 billion, the third largest verdict in a patent case ever and the largest verdict of any kind in 2012.

Mr. Knedeisen has also handled several reexamination proceedings where there is related infringement litigation. He often seeks or defends reexaminations, and now the new post-grant review processes under the America Invents Act (AIA), as part of a comprehensive litigation strategy designed for the clients' needs.

**Patent Procurement:** Mr. Knedeisen's practice also involves the preparation and prosecution of patent applications for numerous technologies, including telecommunications, computer and telecommunication networks, integrated circuits, software, robotics, internet, business methods, optics, telecommunications, RF and microwave devices, microelectromechanical systems (MEMS), nanotechnology, and many others.

**Client Counseling:** In addition, Mr. Knedeisen's practice involves counseling clients on patent matters, such as developing patent portfolios, noninfringement and freedom-to-use counseling and opinions, and due diligence for business transactions.

**Trademark:** Mr. Knedeisen also assist client is protecting their brands through filing and prosecuting trademark applications.

**Pro Bono:** The Federal Circuit Bar Association administers a pro bono program to assist financially under-resourced independent inventors and small businesses. Mr. Knedeisen participates in this program and is a member of the Federal Circuit Bar Association's PTO Pro Bono committee.
PROFESSIONAL/CIVIC ACTIVITIES

Professional Activities
- Intellectual Property Owners Association (IPO)
  - Member of Software & Business Methods Committee
- Federal Circuit Bar Association
  - Member of PTO Pro Bono Committee
- American Intellectual Property Law Association (AIPLA)
- Pittsburgh Intellectual Property Law Association (PIPLA)

Civic Activities
- Bushy Run Battlefield Heritage Society

ADMISSIONS
- Pennsylvania
- Supreme Court of Pennsylvania
- U.S. Court of Appeals for the Federal Circuit
- U.S. District Court for the Western District of Pennsylvania
- U.S. Patent & Trademark Office

EDUCATION
J.D., University of Pittsburgh School of Law, 1998 (magna cum laude; Order of the Coif; Associate Editor, Journal of Law and Commerce)
M.S.E.E, The Pennsylvania State University, 1993
B.E.E., Villanova University, 1990 (cum laude)
OVERVIEW

Mr. Leslie began practice with K&L Gates in 1991 and has been a partner in the firm since 1998. Mr. Leslie is a member of K&L Gates’ Patent, Trademarks, Copyrights & Related Transaction and Telecom, Media and Technology groups. Mr. Leslie’s practice includes patent and trademark acquisition, prosecution, policing and enforcement, product clearance, technology transfer, and the preparation of opinions and agreements related to patents, trademarks, and other intellectual property. Mr. Leslie manages the patent and trademark portfolios, and provides day-to-day intellectual property counseling, to a number of large companies. Mr. Leslie also has been involved in intellectual property litigation, including patent infringement litigation before the federal district courts and before the U.S. Court of Appeals for the Federal Circuit, the federal appellate level court having exclusive jurisdiction over appeals in patent cases.

Mr. Leslie’s technical concentration is in the materials science, chemical, and mechanical areas. Mr. Leslie coordinates the Intellectual Property Group’s Materials Science subgroup, which gathers together those registered patent lawyers having particular interest and experience in patent prosecution and counseling in the materials science area, which broadly includes metals, ceramics, and polymers. Examples of areas of materials science in which Mr. Leslie has been involved include ore beneficiation, carbon steel and stainless steel alloy design and production, metal casting, cemented carbide production, fabrication of nickel-base and other high performance alloys, powder metallurgy processing, metal powder atomization, cutting tool design, magnetic alloys and powders, cathode and anode cell design, micro-mechanical structure fabrication, and synthetic fiber spinning.

PROFESSIONAL BACKGROUND

Upon graduation from law school, Mr. Leslie served as judicial clerk to Circuit Judge Glenn L. Archer, Jr., in the United States Court of Appeals for the Federal Circuit.

Prior to law school, Mr. Leslie was employed as a patent examiner in the organic chemical section of the United States Patent and Trademark Office.

PROFESSIONAL ACTIVITIES

- Allegheny County Bar Association
- ASM International
- Association of University Technology Managers
- Minerals, Metals, and Materials Society
Mark R. Leslie (continued)

- Pennsylvania Bar Association
- Pittsburgh Intellectual Property Law Association

ADMISSIONS
- Pennsylvania
- U.S. Patent & Trademark Office (Registration No. 36,360)
- Supreme Court of Pennsylvania
- U.S. Court of Appeals for the Federal Circuit
- U.S. Court of Appeals for the Third Circuit
- U.S. District for the Western District of Pennsylvania

EDUCATION
J.D., Vanderbilt Law School, 1990 (*Order of the Coif*)
B.S., Allegheny College, 1985 (Chemical Engineering) (*magna cum laude; Phi Beta Kappa*)

Graduate Work at the Pennsylvania State University and the University of Pittsburgh (Materials Science)
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OVERVIEW
Mr. Verdini is a trial attorney who focuses on intellectual property litigation and intellectual property counseling. He played a lead role in the pretrial and trial efforts that led to obtaining a $1.17 billion verdict for a client in a patent infringement case; the largest verdict in the U.S. in 2012 as reported by the National Law Journal and the third largest ever in a patent case. Mr. Verdini also obtained one of the largest verdicts in Pennsylvania in 2013 for a client in a patent infringement case. Mr. Verdini litigates trademark infringement, copyright infringement, misappropriation of trade secrets and unfair competition/false advertising cases. He counsels entertainment, media and consumer product clients on trademark clearance, registration, maintenance and enforcement issues and litigates trademark opposition and cancellation proceedings before the U.S. Patent and Trademark Office.

Among other clients, Mr. Verdini represents World Wrestling Entertainment, Inc. in trademark infringement cases, trademark opposition and cancellation proceedings and intellectual property and contract disputes. He leads the intellectual property enforcement efforts of a well-known music band and has counseled a large retailer on trademark, trade dress and copyright issues. Mr. Verdini has tried patent infringement and copyright infringement cases and managed large intellectual property litigations through all major stages, including arguing summary judgment, pretrial and post-trial motions.

Mr. Verdini is a member of the Advisory Committee for the Study of the Local Patent Rules and of the Local Civil Rules for the Western District of Pennsylvania, co-author of the intellectual property chapters in the "Expert Witness Answer Book" that the Practising Law Institute has published annually since 2012 and was selected to the Pennsylvania Rising Star List in 2014. While an undergraduate at Harvard University, Mr. Verdini was a two-time letterwinner for the Harvard football team.

ADMISSIONS
• Bar of Pennsylvania
• U.S. District Court, Western District of Pennsylvania

EDUCATION
J.D., Emory University School of Law, 2004 (with honors)
A.B., Harvard University, 2001 (cum laude)
Christopher M. Verdini (continued)

PUBLICATIONS
• Expert Witness Answer Book 2014; Published by the Practising Law Institute; Books: April 2014
• Expert Witness Answer Book 2013; Published by the Practising Law Institute; Books: May 2013
• Expert Witness Answer Book 2012; Published by the Practising Law Institute; Books: February 2012
• K&L Gates represents pharmaceutical company in precedent-setting WIPO domain name victory; *Intellectual Property Litigation Alert*; Alerts/Updates; December 4, 2007

PRESENTATIONS

PROFESSIONAL ACTIVITIES
• Barrister, Intellectual Property Inn of Court for the Western District of Pennsylvania
• Member of Advisory Committee for the Study of the Local Patent Rules for the Western District of Pennsylvania, 2014
• Member of Advisory Committee for the Study of the Local Rules for the Western District of Pennsylvania, 2014

ACHIEVEMENTS
• Selected to the Pennsylvania Rising Stars List, 2014

REPRESENTATIVE EXPERIENCE
• **Grant Street Group, Inc.** v. Realauction.com, LLC, No. 09-cv-01047 (W.D. Pa.) -- Patent Infringement -- Obtained a multi-million dollar jury verdict on behalf of a private company that develops software for and hosts computer-mediated auctions of financial and legal instruments.
• **World Wrestling Entertainment, Inc.**, et. al. v. AWA Wrestling Entertainment, Inc., et al., 07-cv-02058 (D. Minn.) -- Trademark Infringement -- Obtained summary judgment of trademark infringement and obtained permanent injunction.
Christopher M. Verdini (continued)

- Pittsburgh Home and Garden Show, Inc. v. Scripps Networks Inc. and E.W. Scripps Co., No. 03-1477 (W.D. Pa.) -- Trademark Infringement -- leading developer of lifestyle-content for television and the Internet in action seeking to prevent use of phrase “Dream Home.”


- Howard Industries, Inc. v. Allegheny Ludlum Corp. d/b/a ATI Allegheny Ludlum, 10-cv-00104 (W.D. Pa.) -- Contract -- Obtained summary judgment against one of the largest electrical transformer manufacturers in the world in a declaratory judgment action requesting termination of contract for the purchase of grain oriented electrical steel. After obtaining summary judgment that required continued performance under the contract, the case successfully settled.