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Strategic Management of Intellectual Property in U.S. Corporations

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INTRODUCTION

Live in “Golden Age” for IPRs
Corporations built on patented technologies
Motto: Innovate or perish
Patent filings and issuances are skyrocketing
Talk of patent “revolution,” “explosion,” “frenzy”

“Anything under the sun that is made by man” is patentable
Courts, Congress, Justice Department — pro IPRs

Value of IPRs for securing exclusive positions — simply invaluable
Royalties for licensing IPRs in 2002: $150 billion
Over $1 billion for some companies
IBM, $1.8 billion

Universities jumped on bandwagon

INTELLECTUAL PROPERTY (IP)
&
INTELLECTUAL PROPERTY RIGHT (IPR)

IP	IPR
Invention	Patent, Trade Secret
Know-how, Invention	Trade Secret
Brandname	Trademark
Work of Authorship	Copyright

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PATENTS AND MONOPOLIES

Reasons why a patent per se is not a monopoly:

1. A monopoly is something in the public domain that the government takes from the public and gives to a person (like in the famous British case of the playing cards). An invention is something that did not exist before and was not in the public domain. It is something novel, that upon publication via the grant of the patent enriches the public domain with the knowledge of the invention, and upon expiration of the patent, enters into the public domain, free to be used by anyone. A true antithesis.
2. According to our patent legislation, a patent is "personal property", like any other personal property (35 U.S.C. § 261).
3. And according to the 1995 DOJ/FTC Antitrust Guidelines, patents are "comparable to any other form of property," are not "presumed to create market power" and licensing patents is "generally pro-competitive." This marks a 180-degree turn in their policy.
4. Patenting is a neutral act and a patent does not grant the positive right to make, use and sell the patented invention but merely the negative right to prevent others from making, using and selling such an invention.
5. The patent right or property is otherwise severely restricted in terms of duration and scope and the patent misuse law, to be considered a monopoly.
6. There are almost always alternatives available to the public — prior art alternatives, alternatives that are obvious and hence not patentable and alternatives provided by improvement inventions.
7. If anything, patents intensify competition; they can lead to many improvement patents as competitors are motivated to "invent around." Patents are "potential antimonopoly agents." (Judge Rich)

Better terminology for "desirable monopoly," "got-sanctioned monopoly," "legal monopoly," "limited monopoly," "private monopoly," "temporary monopoly."

THREE STAGES OF A CORPORATE PATENT MANAGEMENT PROCESS

A. Harvesting Inventions
   Extracting and Processing
   Invention Disclosures

B. Patent Solicitation
   Preparing, Filing and Prosecuting
   Patent Applications

C. Patent Exploitation
   Employing, Licensing and Enforcing Patents

1. Harvesting Inventions
(Discovering Discoveries)

1. Have a simple, easy Invention Disclosure system (policy, procedure and forms)
2. Establish rapport with inventors — “hand-holding”
3. Practice MBW — “Management by Wandering Around”
4. Make periodic trips to R&D sites
5. Make presentations to R&D personnel to foster IP awareness
6. Distribute IP bulletins to R&D personnel
7. Read R&D’s technical reports regularly
8. Attend R&D meetings
9. Have written procedures for cooperation between R&D and IP Departments
10. Have patent liaison people at R&D sites
11. Review the invention disclosures in patent committee meetings
12. Have a reasonable standard employment/ invention agreement with all R&D personnel
13. Conduct IP Audits
14. Institute an inventor award or incentive system

ISSUES FOR PATENT COORDINATION MEETING

1. Whether to seek patent protection in the United States or elsewhere and, if so, what priority should be assigned to the filing of patent applications
2. Whether to suspend further consideration of some inventions until additional information can be developed or until further experimental activity is completed
3. Whether there are opportunities for identifying and patenting futuristic developments
4. Whether to pay the government maintenance fees required to keep previously filed patent applications and issued patents in force in various countries throughout the world
5. Whether to maintain certain concepts as trade secrets, or, instead, to publish them, if patent protection is not to be pursued
6. Whether new R&D projects may require patent right-to-use or clearance searches, to identify any patents owned by other parties that may cover proposed products or processes
7. Whether to consider using patents offensively against competitors

COOPERATION BETWEEN R&D & IP DEPARTMENTS

1. Correct laboratory notebook keeping.

2. Informing the IP Department of projects, developments, discoveries, etc.

3. Submission to the IP Department of Invention Disclosures.

4. Informing the IP Department of every change and modification in existing patented or unpatented products or processes.

5. Submission to the IP Department for clearance of every form of release or divulgation of technical information.

6. Consulting with the IP Department as to any other problem relating to IPRs, i.e. patents, trade secrets, trademarks, copyrights, etc.

GUIDELINES ON FILING

1. Where invention clearly patentable and commercially important
   — file promptly

2. Where invention unpatentable and not important
   — preserve record only, keep as trade secret (?)

Difficult and vast area in-between —

3. Where invention patentable but not important
   — file in due course, especially if original piece of work or new class of chemicals

   Other legitimate reasons for filing:
   defensive position, licensing potential, inventor recognition)

4. Where invention important but of doubtful patentability
   — file as long as it is novel — rationale for commercialization may provide basis for patentability arguments — fall-out data.

Caveats: R&D blows hot and cold on projects
Decision to keep as trade secret is irreversible

INTEGRATION CONCEPTS

INTEGRATE IP CATEGORIES

EXPLOIT THE OVERLAP

DEVELOP FALL BACK POSITIONS

CREATE A WEB OF RIGHTS

BUILD IP ESTATE

BUILD A WALL

LAY A MINEFIELD

OVERPROTECT

AND

GET SYNERGISTIC EFFECT

VIA

DUAL OR MULTIPLE PROTECTION

Patent/Trade Secrets Interface

As a practical matter, licenses under patents without access to associated, collateral know-how are often not enough to use patented technology, because patents rarely disclose the ultimate scaled-up commercial embodiments of products and processes.

"In many cases, particularly in chemical technology, the know-how is the most important part of a technology transfer agreement." (Homer Blair)

"Acquire not just the patents but the rights to the know-how. Access to experts and records, lab notebooks, and reports on pilot-scale operations, including data on markets and potential users of the technology are crucial." (Robert Ebish)

"Trade secrets are a component of almost every technology license…(and) can increase the value of a license up to 3 to 10 times the value of the deal if no trade secrets are involved." (Melvin Jager)

"It is common practice in industry to seek and obtain patents on that part of a technology that is amenable to patent protection, while maintaining related technological data and other information in confidence. Some regard a patent as little more than an advertisement for the sale of accompanying know-how." (Peter Rosenberg)

In technology licensing "(r)elated patent rights generally are mentioned late in the discussion and are perceived to have 'insignificant' value relative to the know-how." (Michael Ward, Honeywell VP Licensing)

Query: Are patents a sideshow?

(CIBA-GEIGY examples: Eastman Kodak & DuPont licenses)

COMPLEMENTARINESS OF PATENTS AND TRADE SECRETS

1. In the critical R&D state and before any patents issue, trade secret law "dovetails" with patent law. (Bonito Boats)

2. Assuming that a development has been enabled and the best mode described, all associated, collateral know-how not disclosed, whether or not inventive, can be retained as a trade secret.

3. All R&D data, including data pertaining to better modes, developed after filing, again whether or not inventive, can also be protected as trade secrets.

4. With respect to technologically complex developments consisting of many patentable inventions and volumes of associated know-how, complementary patenting and secreting is tantamount to having the best of both worlds. E.g. GE's industrial diamond process technology.

The question then is not whether to patent or to padlock but rather what to patent and what to keep a trade secret and whether it is best to patent as well as to padlock.

PATENT/TRADE SECRET INTERFACE

The "*enablement*" and "*best mode*" requirements apply
— only to the knowledge of the inventor,
— at the time of filing and
— only to the claimed invention.

The enablement and best mode requirements are no impediments, because —

1. Patent applications are filed early in the R&D stage to get the earliest possible filing or priority date.

2. The specification normally describes in but a few pages only rudimentary lab experiments or prototypes.

3. The best mode for commercial manufacture and use remains to be developed later.

4. Patent claims tend to be narrow for distance from the prior art.

5. As shown by case law, manufacturing process details are, even if available, not a part of the statutorily-required best mode disclosure of a patent.

EXPERIMENTAL USE DEFENSE

The experimental use defense is very narrow and strictly limited to amusement, idle curiosity or philosophical inquiry.

Dissent by Judge Newman in *Integra Life Sciences* (Fed. Cir. 2003). The subject matter of patents may be studied in order to

- understand it
- improve upon it
- find a new use for it
- modify or 'design around' it.

"Were such research subject to prohibition…the advancement of technology would stop, for the first patentee in the field could bar not only patent-protected competition, but all research that might lead to such competition, as well as barring improvement or challenge or avoidance of patented technology."

"A rule that … information (contained in patents) cannot be investigated without permission of the patentee is belied by the routine appearance of improvements on patented subject matter, as well as the rapid evolution of improvements on concepts that are patented."

Judge Newman also pointed that "philosophical" as first used by Justice Story in 1813 — referred to "natural philosophy", then used for what we today call "science."

According to Judge Rich, there are four incentives of the Patent System, namely, to

- invent (the least important one)
- disclose
- invest (the most important one) and
- invent around — a very important stepping stone to improvement patents

AVOIDING PITFALLS

How to Optimize obtaining Patents which will be found Valid, Enforceable and Infringed. To get a patent and to get an enforceable patent are two different things. Therefore:

- Investigate or verify the inventorship.
- Probe for commercial use and “on sale” activities.
- Bring pertinent prior art to the attention of the PTO.
- Correlate claims coverage with post-filing technical and commercial developments regarding the invention.
- Minimize the use of affidavits or declarations and beware of prosecution history estoppel.
- Also keep in mind the best mode and enablement requirements, export control regulations, as well as many other potential pitfalls.
- Stay in touch with inventor(s) at all times.

HOW TO FACE THIRD-PARTY PATENTS

Starting point and first step in managing downside risk:
company policy is not to infringe valid patents of others

1. Determine scope — if outside, no problem

Caveat: positive doctrine of equivalents
(even if inside there may be no problem by dint of negative doctrine of equivalents)

2. Determine validity — invalid patent cannot be infringed
3. Work around it, design around it, invent around it
4. Wait till expiration, if not too far off
5. Take a license or buy patent or whole business

N.B. Different kinds of patents have different scope of protection

- Paper patent
- Commercially-used-patent
- Basic or pioneer patent

DUE DILIGENCE

An investigation undertaken in the course of an IP transaction.

The purpose of a due diligence investigation is to provide the data needed to analyze and assess the business and legal risks associated with the IP rights that are the subject of the transactions.

Due diligence procedures may include, among other things:

1) identification of all IP involved in the transaction,
2) verification of ownership and inventorship of the IP,
3) determination of the enforceability or strength of the IP assets,
4) review and verification of all documentation associated with the IP, including registrations, licenses, security liens, file wrappers, and claims of infringement; and
5) interviews of those persons with knowledge of the IP.

FTC/DOJ Report

To promote innovation:
The proper balance of competition
and patent law and policy

Conclusions

I. Although most of the patent system works well, come modifications are needed to maintain a proper balance of competition and patent law and policy.

II. Questionable patents are a significant competitive concern and can harm innovation.
   A. Questionable patents can deter or raise the costs of innovation.
   B. In industries with incremental innovation, questionable patents can increase "defensive patenting" and licensing complications.

Recommendations

1. As the PTO recommends, enact legislation to create a new administrative procedure to allow post-grant review of and opposition to patents.
2. Enact legislation to specify that challenges to the validity of a patent are to be determined based on a "preponderance of the evidence."
3. Tighten certain legal standards used to evaluate whether a patent is "obvious."
   a. In applying the "commercial success" test, 1) evaluate on a case-by-case basis whether commercial success is a valid indicator that the claimed invention is not obvious, and 2) place the burden on the patent holder to prove the claimed invention caused the commercial success.

b. In applying the "suggestion" text, assume an ability to combine or modify prior art references that is consistent with the creativity and problem-solving skills that in fact are characteristic of those having ordinary skill in the art.

4. Provide adequate funding for the PTO.
5. Modify certain PTO rules and implement portions of the PTO's 21st Century Strategic Plan.
   a. Amend PTO regulations to require that, upon the request of the examiner, applicants submit statements of relevance regarding their prior art references.
   b. Encourage the use of examiner inquires under Rule 105 to obtain more complete information, and reformulate Rule 105 to permit reasonable follow-up.
   c. Implement the PTO's recommendation in its 21st Century Strategic Plan that it expand its "second-pair-of-eyes" review to selected areas.
   d. Continue to implement the recognition that the PTO "forges a balance between the public's interest in intellectual property and each customer's interest in his/her patent and trademark."
6. Consider possible harm to competition — along with other possible benefits and costs — before extending the scope of patentable subject matter.
7. Enact legislation to require publication of all patent applications 18 months after filing.
8. Enact legislation to create intervening or prior user rights to protect parties from infringement allegations that rely on certain patent claims first introduced in a continuing or other similar application.
9. Enact legislation to require, as a predicate for liability for willful infringement, either actual, written notice of infringement from the patentee, or deliberate copying of the patentee's invention, knowing it to be patented.
10. Expand consideration of economic learning and competition policy concerns in patent law decisionmaking.

REASONS FOR LICENSING

1) Unblock interlocking IPR's
2) Settle IP litigation, interference
3) Grow and diversify the business
4) Deal with outside idea submission
5) Convert dormant IP portfolios into profits

Developments and Trends in Licensing/Technology Transfer

- Companies that didn't used to license at all, now do it (CIBA-GEIGY, DuPont, IBM, Westinghouse)
- Royalties are going through the roof
- Option Agreements are on the increase
- Other quid pro quos are preferred, e.g. cross licenses, products
- Dormant IP portfolios are licensed for profit
- Other arrangements have been developed, e.g.joint venturing, corporate partnering, co-marketing, co-promotion, strategic alliances, consortium licensing (Sematech)
- No anti-trust enforcement
  Nine no-nos are history
  Positive anti-trust through legislation
- Above all — win/win philosophy, attitude more prevalent

HYBRID LICENSES

Patents and trade secrets (and other IPRs)

Very prevalent

Problematic — different duration, etc.

Solutions:

- Separate agreements — ideally
- Lumpsum payments
- Differentiation between patents and trade secrets
- Allocation of royalties to each
- Reduction of royalty rate if patents
  - terminate
  - declared invalid
  - if applications not issued
- Change license to non-exclusive
- Reduction of royalty-payment period (e.g. 10 years)
- Grant of royalty-free license to patents

LICENSING CASE HISTORY
CLOCK CALCULATOR PATENT

Four-Step Project

1) Exhaustive infringement search and study

2) Exhaustive validity search and study

3) Design of comprehensive Licensing Strategy

   a) Patent ownership transferred to new subsidiary
   b) Narrow royalty base
   c) Low royalty rate
   d) Offer of paid-up licenses
   e) Agreements prepared for both paid-up and running royalty licenses

4) Implementation

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CULTURAL DIFFERENCES

Americans	Asians & Others
An executed contract is a definitive set of rights and obligations strictly binding the two sides:	The "deal" being negotiated is not the contract but the relationship between the parties:
•Sanctity of contract	•Essence of the deal is the relationship, subject to reasonable changes over time
•"A deal is a deal"	•"A deal is not always a deal"
•Signing a contract is "closing a deal"	•Signing a contract is "opening a relationship"
Preference for very detailed contracts to cover any and all contingencies	Reference for statement of general principles ("Heads of Agreement")
To solve problems, parties look to their written contract	To solve problems, parties look to their relationship
"If you don't have it in writing, you don't have it"	"It does not matter what you have on paper"