Improved Management of Patent Litigation by Front-Loaded Allocation of In-House Resources

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***Abstract*--A patent infringement lawsuit against a SME (Small to Medium Enterprise) is a difficult challenge for corporate management. Management is faced with the Hobson's choice of either 1) paying a license fee and hurting their long term competitive position; or 2) paying outside patent litigation counsel, with the incumbent legal expenses and thus hurting the short-term competitive position of the company.**

This paper proposes a management model that shifts the tasks related to patent litigation from higher cost outside counsel to lower cost in-house counsel and company engineers. The objective is to reduce cost and uncertainty for a SME involved in patent litigation by using relatively inexpensive in-house resources. This model also provides management with a degree of cost certainty by using in-house expertise in the initial phases of the case to reduce overall cost and to reduce the overall project cost.

This paper reviews one ongoing legal dispute involving a relatively simple technology (plastic magnifiers) and illustrates how, by using these techniques, litigation risk may be reduced over 60%.

I. INTRODUCTION AND AN OVERVIEW OF PATENT LITIGATION

A. History of Patents

Patents have their historical roots in the European custom of granting "monopolies" to certain subjects to either sell or import commercial goods. When a particular country wished to attract a new industry, the granting of a "Letters Patent" gave this person the right to sell the product for a limited period of time. This practice became disabused in England and led to Parliament enacting the Statute of Monopolies in 1624. The legislation that followed eventually became the basis for the U.S. Constitutional provision that secures rights to inventors and authors. [a]

B. Patent Litigation and Business

Patent litigation has recently risen from their obscure status cause celebre of the social networks and mobile phones. The recent lawsuit between Facebook and Yahoo is an example of the rise in consumer awareness of patents. [1]. Although most consumers may be generally aware of corporate "patent wars", they are generally unaware of how the patent system operates. To the consumer, Apple's allegations against Motorola that the patented "finger swipe" is the same as a "finger tap" has little, if any, importance to their daily lives. [2].

To a manufacturer or provider of high technology product, the threat of patent litigation lawsuit is of much greater concern due to the exposure of litigation expense. As noted in the July 15, 2007, "Your Money" section of the New York Times, the cost of patent litigation has increased from 16 B US annually in 1999 from 8 B US in 1997. [3].This view was echoed by patent researchers Meurer and Bessen who found that public technology companies have a higher probability of suit than similar non-public companies. [4]. Furthermore, there has been an increase in patent litigation by non-practicing entities (NPE's), which have been term derogatorily as "patent trolls". [5]. The assertion of patents by NPE's has been considered "unfair" and "inequitable" by certain commentators. [6]. Given the importance of patents and the costs imposed on business, a brief review of the patent as a legal instrument is provided.

C. Patent Litigation in the United States

The Federal Courts have exclusive jurisdiction for patent litigation pursuant to the U.S. Constitution and Statutory authority of Congress under 28 USC 1338(a). [10].

A patent infringement lawsuit is begun when the Plaintiff files a complaint for patent infringement in a United States District Court. [11]. The Defendant must file an answer to the complaint within a specific period of time Fed Rules Civ Proc 12. [12].

The filing of the complaint begins the process of litigation that must be managed by the defendant. Typically the process is typically managed in the following way:

1) Prelawsuit Demand
2) Prepare for the Markman Hearing (0-6 months)
3) Prepare for Invalidity (6 months – 1 year)
4) Analyze Damages (6 months – 1 1/2 year)
5) Prepare for Trial (1 ½ to 2 years)

Defending a claim of Patent infringement can be extremely costly. It is estimated that for a small case (phases i-ii-iii) the total cost to the defendant is in excess of 250K over the course of two-three years. In simple cases this involves an investment of time and money in counsel, uncertainty of a future judgment, and pressure from the board of directors in view of these uncertainties.

1) Pre-Lawsuit Demand Letter

The potential Plaintiff may send a "demand letter" to the possible infringer notifying them of the patent and possibly offering to negotiate a license. [11]. The parties may agree on a mutually acceptable license fee.

Assuming no license can be reached between the parties, the Plaintiff will likely file a complaint in the appropriate district federal court alleging infringement of the patent.. [12]. In response, the Defendant will file an answer to the complaint, typically denying the claim of infringement.

Furthermore, the Defendant will typcially assert that the patent is invalid. [13].

2) Claims Analysis / Markman Hearing

The Markman Hearing is a procedural step where the language in the patent claims is interpreted by the Court. [b]. The Markman hearing involves each side preparing briefs on the "meaning" of the claim terms. In some cases, the briefs involve formal discovery by taking depositions of the inventors and/or industry experts that offer the interpretation of claim language.

A strategy, that many Defendant's utilize, is to "narrow" the claim terms so that their accused device no longer infringes the asserted claims. Plaintiff's goal is in most cases the opposite – to broaden the claims so that the Defendant's device will infringe.

3) Patent Invalidity

Defendant's also argue that the patent is invalid, despite the fact that an issued patent is presumed valid. Invalidity involves researching prior art references or piece of knowledge, publications and patents that relate to the patented subject matter. The validity of the patent is finally decided by the court. [14] [15].

4) Trial

If any factual issues remain in dispute after discovery and Markman, the parties can move on to a trial. In the patent validity area, certain issues related to the obviousness of a given invention may be resolved by a jury. In the infringement area, the ultimate issue of infringement is up to the jury.

5) Appeal

After the decision of the district court, both parties have a right to an appeal to the Court of Appeals for the Federal Circuit, which by federal statute has exclusive jurisdiction to hear appeals of patent cases. A significant number of patent infringement cases are appealed. The reversal rate for the Federal Circuit is approximately 20%. [15].

6) Litigation Expenses

For small business owners patent litigation expenses can add up to between $1 million and $2 million. According to the AIPLA 2007 report the estimated cost through trial was $600,000 when the stakes are less than $1 million, $1.499 million when the stakes are between $1 million and $25 million, and $5 million for suits with more than $25 million at risk.

The estimated cost through discovery was $250,000 when the stakes are less than $1 million, $797,000 when the stakes are between $1 million and $25million, and $1.508 million when the stakes are over $25 million.

An estimate of costs of a simple case patent litigation is shown in the following table.

TABLE 1.

Stage	Total Cost
Pre-Lawsuit	$ 10,000
Complaint and Answer	$115,000
Markman Hearing	$300,000
Invalidity	$168,000
Damages/ Pretrial / Trial	$471,000
Appeal	$140,000
Other Costs	$ 100,000

II. CURRENT MANAGEMENT MODEL OF PATENT INFRINGEMENT

As noted, the litigation process can be broken into following steps with respect to allegations of infringement on a particular product.

a. Lawsuit/Claims Analysis: The Defendant hires the Law Firm to review the Lawsuit and Analyze the Claims of the Patent.
b. Markman: Defendant Law Firm Conducts an Analysis of the Patent to determine the claim scope.
c. Infringement Analysis: Plaintiff and Defendant argue whether the claims cover the product at issue.
d. Invalidity and Damages: Law Firm hires experts and conducts research to determine scope of infringement and damages.

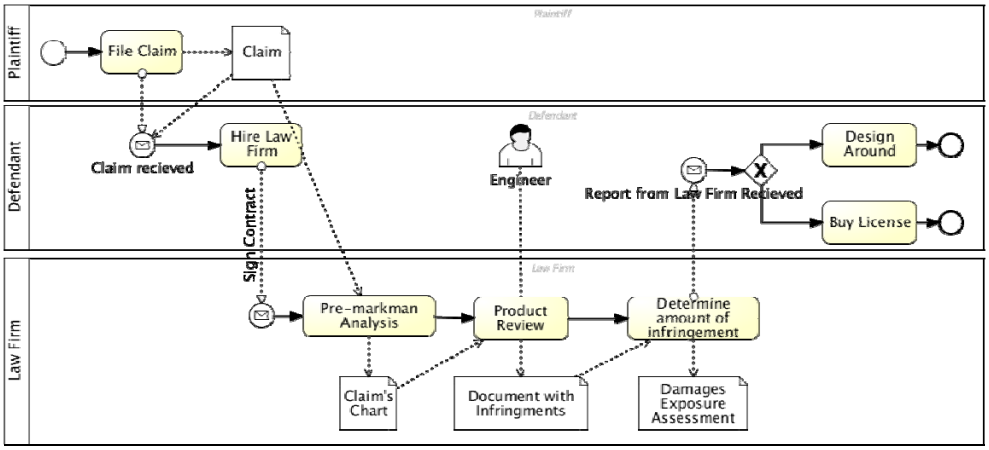


Figure 1

TABLE 2.

Activity	Plaintiff	Defendant Management	Defendant Law Firm	Defendant Engineer
File Claim (a)	R			
Hire Law Firm (a)		R		
Markman Analysis (b,c)		I	R	
Product Review (b)		I	R	C
Determine amount of infringement		I	R	C
Decision about future actions (design around or buy license)		R	C	C
Markman Brief (b,c)	R	I	R	C
Infringement Analysis (c)		I	R,A	C
Invalidity Analysis (d)		I	R,A	C
Settlement	R	R	R	
Trial and Judgment	R	A	R	
Appeal	R	A	R	

R- Responsible: Those who do the work to achieve the task. There is typically one role with a participation type of responsible, although others can be delegated to assist in the work required.

A - Accountable (also approver or final approving authority): The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one from whom responsible is delegated the work. In other words, an accountable must sign off (approve) on work that responsible provides. There must be only one accountable specified for each task or deliverable.

C- Consulted (sometimes counsel): those whose opinions are sought, typically subject matter experts, and with whom there is two-way communication.

I - Informed: Those who are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

e. Settlement and Mitigation: Company make a decision to offer to purchase a license or to create a work.
f. Trial and Judgment: The parties prepare for trial on the merits of the case.
g. Appeal: Disagreement with an adverse judgment by either side can be appealed to the Federal Circuit and potentially to the Supreme Court.

Traditional management of this litigation process would involve these milestones.

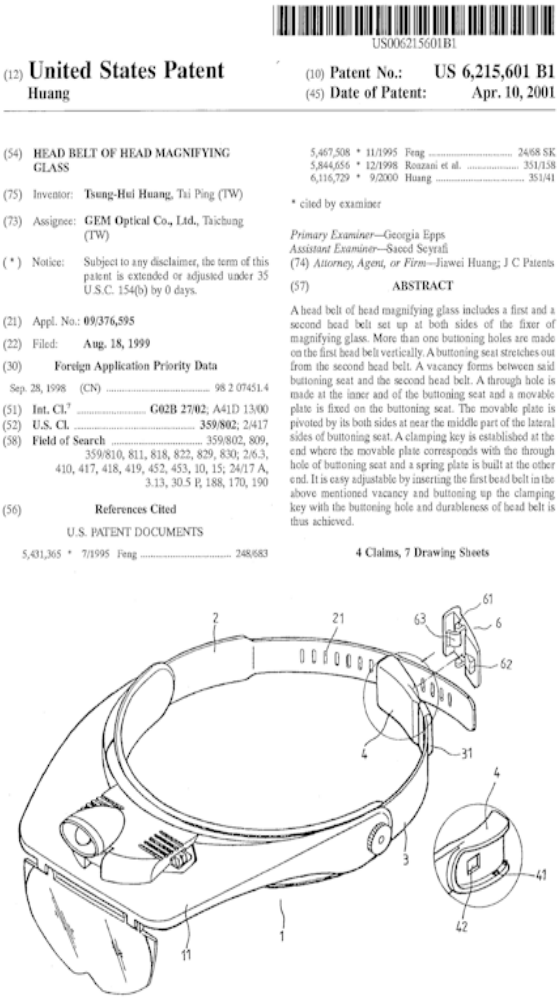
Task	Date
a. Service of the Complaint	March 2012
b. Hire law firm for the Defendant	March 2012
c. Respond to the Complaint	April 2013
d. File Status Report	September 2012
e. Markman Hearing	March 2012
f. Close of Discovery	September 2013
g. Trial	December 2013

The first four steps are shown below pictorially in Figure 1. These steps can be mapped into the following "Linear Responsibility Chart" as in Table 2.

In this particular example, the Plaintiff is Carson Optical ("Carson") and the Defendant is Hawk Importers ("Hawk"). Hawk is located in Long Beach, California. Carson is located in Hauppauge, New York. Both Carson and Hawk import magnifiers from China.

In March, 2012, Carson asserted the four claims of U.S. Patent 6,205,661 against Hawk in the Eastern District of New York.

Since the claims define the scope of the invention, the claims for this headstrap are relatively simple (Exhibit 2).



US006215601B1

(12) **United States Patent**
Huang

(10) Patent No.: US 6,215,601 B1
(45) Date of Patent: Apr. 10, 2001

(54) HEAD BELT OF HEAD MAGNIFYING GLASS

(75) Inventor: Tsung-Hui Huang, Tai Ping (TW)

(73) Assignee: GEM Optical Co., Ltd., Taichung (TW)

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

(21) Appl. No.: 09/376,595

(22) Filed: Aug. 18, 1999

(30) Foreign Application Priority Data

Sep. 28, 1998 (CN) 98 2 07451.4

(51) Int. Cl.[7] G02B 27/02; A41D 13/00

(52) U.S. Cl. 359/802; 2/417

(58) Field of Search ..... 359/802, 809, 359/810, 811, 818, 822, 829, 830; 2/6.3, 410, 417, 418, 419, 452, 453, 10, 15; 24/17 A, 3.13, 30.5 P, 188, 170, 190

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Primary Examiner—Georgia Epps
Assistant Examiner—Saeed Seyrafi
(74) *Attorney, Agent, or Firm*—Jiawei Huang; J C Patents

(57) ABSTRACT

A head belt of head magnifying glass includes a first and a second head belt set up at both sides of the fixer of magnifying glass. More than one buttoning holes are made on the first head belt vertically. A buttoning seat stretches out from the second head belt. A vacancy forms between said buttoning seat and the second head belt. A through hole is made at the inner and of the buttoning seat and a movable plate is fixed on the buttoning seat. The movable plate is pivoted by its both sides at near the middle part of the lateral sides of buttoning seat. A clamping key is established at the end where the movable plate corresponds with the through hole of buttoning seat and a spring plate is built at the other end. It is easy adjustable by inserting the first bead belt in the above mentioned vacancy and buttoning up the clamping key with the buttoning hole and durableness of head belt is thus achieved.

4 Claims, 7 Drawing Sheets

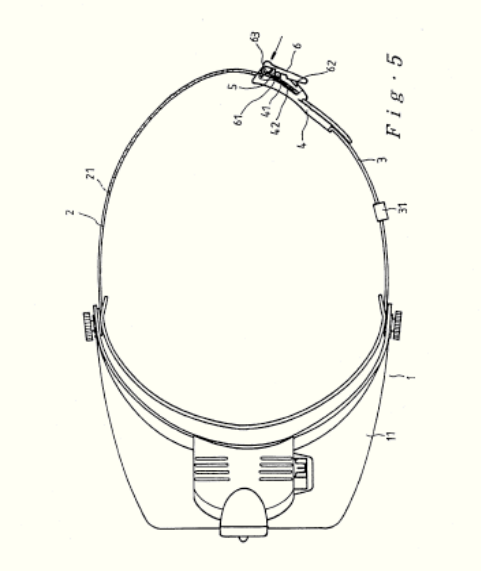

Exhibit 1

1. A head belt for a head magnifying glass, wherein the head magnifying glass has a fixer with a first end and a second end, the head belt comprising:
   a first head belt coupled to the first end of the fixer;
      a second head belt coupled to the second end of the fixer, wherein more than one vertical buttoning holes are formed on the first head belt;
      only one buttoning seat coupled to the second head belt and forming a vacancy between the buttoning seat and the second head belt, wherein a through hole is formed in the buttoning seat;
   a movable plate pivotally coupled to the buttoning seat, wherein a clamping key is set up at one end of the movable plate for engaging with the through hole of the buttoning seat, and a spring plate is established at the other end of the movable plate.

2. The head belt according to claim 1, wherein there is a binding sleeve on the second head belt used to bind up the first head belt.

3. The head belt according to claim 1, wherein there is a pivot axle at a middle portion of the movable plate, and the pivot axle is put in a pivoting hole on a lateral side of the buttoning seat to pivotally connect the movable plate with the buttoning seat.

4. The head belt according to claim 1, wherein the first belt and the second, head belt are pivotally connected to the first end and the second end of the fixer of the head magnifying glass, respectively.

Exhibit 2 – Patent Claims of the 6,215,601 Patent

In the traditional model of managing patent infringement cases, the cost of claim construction, discovery, trial, and appeal would allocated to the law firm. The estimated costs are:

Pre-Lawsuit	$ 10K
Complaint and Answer	$ 115K
Markman Hearing	$ 300K
Invalidity	$ 168K
Damages / Pretrial / Trial	$ 471K
Appeal	$ 140K

These amounts are based on calculations derived from inputting each task into Microsoft Project and assuming an average legal fee of $ 350.00 per hour. A portion of this expense is allocated to outside counsel preparing reports to the management of the company apprising them of the status of the case.

One can see that for even a simple product, the costs are prohibitive. Therefore small to medium-sized enterprises need an improved model to reduce costs.

III. PROPOSED IMPROVED MANAGEMENT MODEL FOR PATENT LITIGATION

The improved model relies of the front-loaded allocation of in-house resources to manage the process of patent litigation. Most tasks related to patent litigation are moved from outside counsel to in-house counsel.

The starting point of this process involves the search for an in-house patent litigator. The cost of an in-house patent

litigator may range from 150K-250K.. The use of an in-house patent litigator dramatically reduces the cost associated with litigation.

Next, traditional project management tools such as linear responsibility charts, critical path methods, Gantt charts, and cost assessments, to evaluate the project are implemented to provide management with progress on the patent litigation. As the case progresses, the time and costs associated with each phase are entered into the project management system.

Further, several tasks, usually relegated to later phases of the case, are brought forward and assigned to engineers. These tasks are associated with the technical analysis of the patent: prior art searching for invalidity and claim construction for the Markman hearings. Engineers, rather than lawyers, are probably more suited to analyzing the technical aspects of the subject matter associated with the patent, rather than the lawyers (who often rely on experts).

This task reallocation is illustrated in the workflow chart as indicated below in Figure 2 and Table 3.

A summary for the modified costs for patent litigation are:

Pre-Lawsuit	$ 30K
Complaint and Answer	$ 50K
Markman Hearing	$ 97K
Invalidity	$ 50K
Damages / Pretrial / Trial	$ 178K
Appeal	$ 40K

When comparing the costs from the lawyer-centric model to the modified cost model, the cost reductions are substantial.

The costs are significantly reduced by utilizing the modified model. Under the old model the cost of litigation is approximately $ 1.3M. Under the modified model the cost is approximately 350K, a reduction in cost of approximately 60%. Some of this cost reduction is due to the reduction in reports between the law firm and the company regarding the status of the case.

There is not requirement for specialized tools needed to manage a patent litigation project. Simple management can be completed by using Microsoft Project or other tools. These tools can be made more robust by thorough upfront planning, for example, detailed planning of subtasks (such as down the detail of claims analysis and/or jury instructions) can help coordinate and track costs.

What is important is that the same project management tools that the company uses for other projects are also applied to the task of patent litigation. The reuse of these tools not only reduces the learning curve but also allows the entry of data associated with the case to be accomplished more easily.

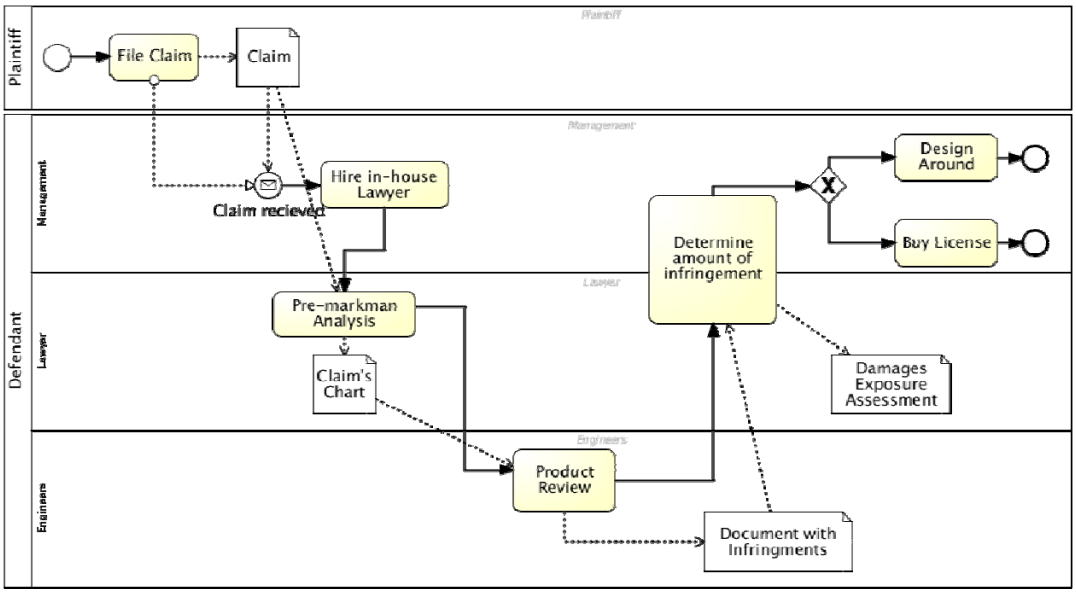

Figure 2.

TABLE 3.

Activity	Plaintiff	Defendant Management	Defendant Lawyer	Defendant Engineer
File Claim	R			
Hire in-house Lawyer		R		
Pre-markman Analysis			R	
Product Review			C	R
Determine amount of infringement		A	R	
Decision about future actions (design around or buy license)		R	I	

IV. DISCUSSION AND FURTHER RESEARCH

This paper supports a project management model and aims to build on the current management model of patent Infringement. Patent infringement is a complex task with many project dimensions.

Based on results from Hawk's case, our proposed model (in house centered) for this litigation process is more cost effect than the traditional model (lawyer centered). In this analysis, the reduced total litigation costs approximately $700,000.00 were saved off the cost based on the proposed traditional model, which is 63.6% of savings.

The proposed model not only improves (e.g. reduces cost) the process, but it also trains the internal staff for future cases. The litigation process will also help design engineers to be more aware of existing patents that will provide guidance on "designing around" certain patents.

These resuls are not tied to a particular brand of project management software. The authors utilized Microsoft Project due to the wide business acceptance of this product, but equivalent software packages exist for project management.

Further management models for patent infringement cases may involve different forms of models for risk analytics. These risk analytical tools can provide management with an independent analysis of the risk of high value infringement cases. These techniques may be especially valuable in the area of software patents, where claim language is vague and assertions are made by non-practicing entities. Recent judgments in excess of hundreds of millions of dollars illustrate the importance of patent litigation modeling.

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APPENDIX A

Carson Optical vs. Hawk Importers
EDNY 2:12-cv-01169-JS-GRB Filed on 3/19/2012