VII. Proposals

Below are respective proposals for addressing the two root problems identified from the analyis contained in the previous chapter. A "utility parameter" is introduced as an added entry for patent content in order increase objectivity in determining patent value as well as scope. Such parameter is to be incorporated with a return to a registration-based patent system that leverages the latest capabilities in information technology.

A. The "Utility Parameter"

Chapter VI, section C provided that original meaning for the utility requirement for patents emphasized measurable improvements to manufacturing. In 1817 Judge Story did not want to impose any requirement that a patent "must have" improved utility over existing methods but only that it did not introduce any detrimental or immoral subject matter. He did so in order avoid imposing unnecessary restrictions on incoming ideas, instead relying on an assumption that any patents lacking in utility would naturally "sink" into obscurity. Unfortunately, instead of "sinking" away, bad patents continue to surface amongst the sea of growing litigation described by GAO and others.¹⁵⁸

One should also consider that during early U.S. history, utility of an invention was more easily recognizable. Again, the cotton gin had doubled the rate of textile manufacturing. In contrast, modern notions of utility have been obscured by greater competition, market influence, technical complexity and uncertainty. This situation has led to many "weak" patents being issued on what amounts to obvious or slight design variations.

This paper proposes that introducing a "utility parameter" as a formal, albeit unverified, entry on patent applications would inject a needed measure of objectivity in what has become an excessively subjective exercise of claims interpretation. The utility parameter would simply require the applicant to *quantify* the significance of their invention by whatever means

he or she feels is most suitable for capturing the advantage that the invention offers. For example, if an inventor developed a new fuel injector design for engines that resulted in increased vehicle range, the inventor can specify how many more kilometers of travel can be obtained from a given amount of fuel for a particular size and weight of vehicle based on either calculated estimates or actual test data. Ideally this improvement would be supported by attaching such reports but it would not be required. The primary purpose for the utility parameter is to assist in bounding a patent by revealing substantially more about the nature and result of the intended invention itself. Therefore, it would also help determine whether there is truly any "equivalence" with a contending patent claim. The utility parameter purported by the applicant would be tested only in the event the patent is formally challenged. Such test would also consider the extent to which the patentee has actually demonstrated said utility parameter, in order to discourage empty or inflated figures.

Although many applicants may already include content resembling a utility parameter in their specification and claims, there is currently no requirement to do so. This proposal only requires that the utility parameter include a quantification of benefit and be presented in clear and understandable language as a formality of the patent application. There would be no binding standard for a minimum utility beyond what is suggested by existing U.S. patent law. The utility parameter intends only to provide a missing "measuring stick" for use in an evaluation process that is otherwise restricted by often ambiguous standards for novelty and non-obviousness; hence helping to more quickly eliminate weak patents and "fuzzy boundaries" on claims.

B. "High-Tech" Patent Registration

As described in Chapter VI, Section A, the major logistical problem facing the patent registration system in 1793 was lack of patent notice communication capability. Furthermore, there was a general lack of understanding with regards to patent issues and abuses that were taking place at the time. In today's communication and information age these problems simply no longer exist.

1. Description

It is proposed that with use of modern information technology, the USPTO can now access the public support once sought by the Founders to assist in governing patent issues. An online registration-based patent system would leverage public expertise and manpower that would dwarf the efforts of current examination proceedings. These efforts would provide greater illumination of the patent landscape, leading to improved anticipation of patent strength.

It is important to note that this proposed online system is not intended to provide a legal determination on patent validity built on consensus. Instead it enables expression of a perceived public value or strength in association to a given patent. It is simply an electronic registry database and public forum that promotes expedited disclosure and the accumulation of public feedback. The gathered commentary would effectively provide a "word on the street" reading that can assist the public as well as stakeholders in their assessment of patent positioning and strength. It would not legally determine what is a valid patent, but instead assist in identifying what is a "valued" patent.

Users of the online system would be registered and verified by the USPTO patent registry website. Relevant user and demographic data such as associations with certain companies or industries would be collected for each user account. Users would then be able to leave named or anonymous commentary on a moderated "message board" occurring for each registered patent. Users would use these message boards in much the same way as many popular social media sites such as Yahoo, Google, and Facebook. Individuals may leave questions or comments regarding each patent. To avoid patentees being inundated with commentary, moderator support as well as advanced consensus identification utilities such as "voting up" options can be used. Voting items up or down would help identify the most pressing questions or comments from the general public which the patentee can then respond to online. Notably the USPTO already employs an online utility that resembles this scheme for gathering ideas from

¹⁵⁹ Chris Dixon, Why Google Succeeded Where Other Search Engines Failed, Business Insider, (2011) http://www.businessinsider.com/accurate-contrarian-theories -2011-5?IR=T (accessed Sep 7, 2017)

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the public on how to improve the Manual on Patent Examination Practices (MPEP). 160

Applicants would file online and have their registered patents published after a formality check that should take no more than sixty days to process. Timely disclosures and publication benefit the research and development community by minimizing the number of applications hidden in the "pipeline" at any one time.

2. Compatibility with Existing Systems

Installation of the proposed online patent registration system would be minimally disruptive to the existing legal infrastructure. All existing legal proceedings including formal post-grant review would remain intact. Patent law would maintain existing criteria such as novelty and non-obviousness, introduce new entries such as the "utility parameter," yet eliminate the requirement for formal examination of patent filings. Instead, applications would be rapidly posted to the online database. The online registry would be equipped with adjoining search and communication forum functionality. In addition, it would be designed to process filing fee payments and facilitate an efficient formalities-only incoming check by the USPTO. This online repository would also enable the attachment of data and media files that support stated claims. An advanced search function that updates with the latest image and algorithmic search capabilities would also be provided to users. Powerful computer sciences such as artificial intelligence and block-chain crytography can be harnessed to help the USPTO manage an increasingly vast volume of time-sensitive data. These advances would be applicable to all aspects of the patent process; from search, to prosecution, and, as necessary, during litigation.

Electronic patent registration would be disruptive only as far as eliminating the burdensome and wasteful examination process being attempted today. The existing infrastructure of courts, agencies and legal services will of course still be needed but these resources would be used much more efficiently and effectively. The USPTO would undergo downsizing but maintain a contract examiner resource pool through establishment of supplementary private agencies. Full-time examiners would be able to tru-

¹⁶⁰ USPTO, Ideascale, https://uspto-mpep.ideascale.com/ (accessed Sep 7, 2017)

ly hone their skills and help improve search algorithms when they are no longer rated on 'count' of patent grants per month, but rather thoroughness of examinations, limited to important and high-potential subject matters as described below.

3. Agency Examination Option

As a supplemental option, a professional examination report by the USP-TO or government-approved third party agency may be provided, at a premium fee, for those seeking a stronger indication of patent value. The patentee is free to elect whether or not to post findings of such a report. As with any non-legal opinion, such report would not serve to provide determination of validity. It would only reflect additional steps beyond nominal processing taken on the part of the patentee to verify strength of claims.

The above formal agency review option may appear to reintroduce patent examination that favors well-financed corporations but selective third-party examination input is not likely to overcome the self-regulation enabled by low-cost public registration. Professional assessments would be discouraged from offering binary determinations on patent status. Instead, they would provide a "strength rating" such as a percentage likelihood of patent validity in a third-party challenge. Like any other opinion, this assessment would be open for questioning if posted publicly. Furthermore, the online database would track these assessments against results from actual litigation or challenge. Hence, an "accuracy rating" can be generated for each agency providing a measure of competition and quality control that escapes the USPTO today. To add, a fixed-capacity USPTO with private agency supplementation would provide a more flexible and cost-effective examination resource.

4. Benefits

The "open book" approach of online patent registration should accomplish far beyond even what the Founders had sought with the newspapers of their day. With internet-enabled advanced information management resources, relevant patents would undergo a virtual "townhall" review process where the general public could weigh-in on strength of the claims being set forth.

This high-visibility, crowd-sourcing scenario would result in a database that can be used to dramatically reduce litigation and avoid patent wars. Greater real time access to the patent landscape would enable more "pregame" analysis for those considering post-grant review, litigation or other formal patent challenges. The consensus of opinion contained in such a registry would provide a virtual examination process that should dissuade questionable claims and frivolous legal actions. It should also encourage private settlement. Public commentary on patentee claims regarding novelty, non-obviousness, and the utility parameter would provide a supplemental cross-check to private analysis parties may be pursuing in parallel. Furthermore, by "laying out all their cards" sooner, rival companies are provided better opportunity to propose patent pool or standards-essential patent agreements which can work to avoid potential patent wars.

An online patent registry would also provide judges and attorneys means to become rapidly acquainted with a given subject matter by browsing relevant message boards associated with any case at hand. In this way, industry participants as well as the general public will have a chance to have their voices heard without having to surmount the formalities or exposure of a formal patent challenge or litigation.

5. Risks and Unknowns

Some may argue that an online registration system will invite similar as well as new types of abuses as seen between 1793 and 1836. As described, the problems taking place after the Patent Act of 1793 were due mainly to a lack of adequate communication and information regarding patent notice and alerting the public to abuses. In today's internet age, these problems would be eliminated. Anyone across the world with internet connection would be able to see and comment on the latest patent filings within seconds of issue. Furthermore, unscrupulous individuals can no longer hide behind a document with the Presidential Seal as they did in the early 1800s. Any new attempts at intimidation or abusive methods would be quickly exposed given today's resources.

Although there remain risks with any such reform, there is also possibility of unknown benefits. An online registry may produce yet unpredicted advantages such as the emergence of public *reputation* as contributing self-governing factor. For example, some may still be concerned with companies "flooding" the registry with worthless patents as an intimida-

tion tactic. Firstly, employees may be reluctant to be personally named as inventors on such patents as they will no longer be able to point to the USPTO as having fully concurred with their application; this would make the inventor solely responsible for outlandish or false claims that are later exposed. Furthermore, such companies would probably be called out on the public forum anyways. Repeated actions such as flooding or filing of weak or obvious patents can be made apparent with data filtering and information ranking options easily worked into an online database. Again, any company can choose to challenge public findings in formal proceedings, but the backdrop provided by online consensus should reduce these actions to only the most deserving disputes.

6. Summary

The above provides only a rough sketch of the framework and potential benefits of restoring original U.S. patent registration principles through modern means. There are hosts of other factors to consider alongside such a reform. Other elements to be incorporated may include reduction of patent terms, increases in filing fees, and other procedural adjustments. The focal point however, remains to be the leveraging of public participation and advanced data management tools to achieve a crowd-sourced virtual examination process that minimizes governmental expense while effectively maintaining high patent quality standards. Such a system would lead to increased legal certainty that works to encourage innovation. Theoretical application of this proposed system to the *Apple* and *Wright* scenarios is provided in the concluding chapter.