VIII. Conclusion

In closing, this paper has provided a historical perspective on origins of the U.S. patent system along with review of patent quality and two well-known patent wars. This information reveals a persisting quality crisis with patents on most subject matters. This crisis corresponds to a drift away from founding constructs of the U.S. patent system; a foundation that emphasized usefulness, disclosure and publication before grant of exclusive rights. An effective restoration of these founding principles is now possible using technology that is available today. This paper concludes with theoretical application of proposed reforms to the *Apple* and *Wright* cases and final remarks.

A. Revisiting Apple and Wright

Below is a theoretical exercise that applies the proposed utility parameter and online registration system from Chapter VII to the *Apple* and *Wright* cases. The purpose is to illustrate how such a system may have helped avoid or reduce the extent of these patent wars.

With *Apple vs. Samsung* we see that Apple devised an assertion scheme based on clustering of "user experience" patents, most of which covered the physical design and graphical icons on the iPhone. The "utility parameter" may have provided both direct and indirect effects that could have distinguished the product in a more substantial and meaningful way than what essentially amounts to electronic trade dress. A contemporary study completed by Google titled "The New Multi-screen World" has revealed a "staggering shift in user behavior toward engaging with smartphones first as their primary entry point for a wide range of tasks that have critical business impact…now 65% of all tasks involving 'Searching for Info' start on the smartphone."[161] No doubt Apple's iPhone has caused this migration to mobile usage due to the features that it highlights such as on-screen manipulation with a user's fingers. But whereas the current content

161 Mauro, *supra*

of patents focuses on showing "how" users are able to use their fingers to engage on-screen images, the utility parameter would reinforce the "why" behind such a feature. For example, for Apple's two-finger zoom, they may have elected to enter utility parameter data which captures how much more quickly users are able to search for data or check email compared to conventional scroll and select methods used on existing phones. Such data places focus on the true appeal of the iPhone, increased utility, rather than the artistic and fluid features than enable that utility. This utility is reflected in the findings of the Google "Multi-screen" report. The utility parameter would have more prominently displayed this distinction, cutting down on long, subjective arguments on whether an infringing product looked "cool" enough to be mistaken for an iPhone.

Indirectly, the virtual examination aspect of the proposed registration system would have helped counter the stockpiling strategy employed by both companies by "devaluing" questionable software claims. Furthermore, by referring to online patent registration data, Apple may have approached Samsung on patent pooling proposals to pre-empt confrontations on upcoming products such as the iPhone and iPad. For example, Apple may have recognized the relevance of Samsung's 3G patents earlier and negotiated a patent pooling agreement. They could have negotiated favorable terms before revealing the iPhone, making it out of reach from Samsung due to this pre-placed agreement. A number of other hypothetical outcomes can be speculated but the point is that increased focus on product utility and visibility could have helped avoid or at least shorten the smartphone war between Apple and Samsung.

In the case of *Wright v Herring-Curtiss* we find an example of the conundrum facing most "principle" patents which disclose sweeping claims on an enabling technology. This conundrum was represented by the conflict between the Wright "wing-warping" method of lateral aircraft control and Curtiss' more efficient aileron construction. It is an example that goes to the heart of the question regarding how to "parcel out" inventor rights. Here again a utility parameter may have helped break the theoretical stalemate between what were two good ideas.

To illustrate this point, the following analogy is offered. Consider someone "inventing" a single pole for use as a bridge to cross over small rivers. The original inventor can quantify benefit in terms reduced cost by arguing boats would no longer be required to traverse the waterway, or reduced time and distances for travel. A second party then designs a ladder style bridge which incorporates two poles connected by a series steps

thereby eliminating the need for careful balance as travelers traverse over it. Under current standards the first party will argue that the ladder bridge idea from the second party is an "obvious" derivation of the first party's original idea. The second party will argue that their bridge is much less dangerous and easier to use for an average traveler thus represents a new invention. A debate would ensue as courts try to resolve whether a ladder is really just two poles set next to each other or a new concept all together. With the utility parameter, the second party would now be able to document quantifiable benefit in a mode they deem most relevant. For example, they would be able to run a study that compares the average transit time of a group of individuals when using the ladder style bridge against use of the single pole. They could also collect statistics on the rate of falls or missteps on their design versus the single pole. This data could be provided as an attachment under the utility parameter entry. In the event of litigation, courts could then use this additional resolution to help determine whether the new ladder design deserves an exclusive right of its own.

In similar fashion, the difference between Wright's wing warping and Curtiss' aileron would have been better documented with use of a utility parameter. Although an aileron operates under a similar principle as wing warping, the amount of simplification it presents to aircraft design is immense. Warping an entire wing multiplies the number of connections and control mechanisms required from the cockpit to the wing, imposes substantial limitations to aircraft material options, and compromises flight control authority. It is no wonder that Curtiss' aileron remains an essential part of aircraft design today. These advantages could have all been more readily captured if each inventor was forced to contemplate a utility parameter at filing. In this way, the values for both Wright and Curtiss would have been recognized earlier and dealt with accordingly; likely through a cross-licensing agreement.

To reiterate, the utility parameter is not proposed as a binding criterion. Its purpose is to inject a measure of objectivity that may help overcome the subjective criteria of novelty and non-obviousness in many cases.

Finally, the registration system would have likely forced the Wright Brothers to demonstrate their Wright Flyer much sooner than they actually did. Wilbur Wright was apparently reluctant to showcase his design until it was "locked-up" with a patent grant. Firstly, the lowered barrier for filing with registration would have increased the risk that another party would file a similar concept sooner. Secondly, the data from flight tests would

become a greater component of substantiating the registered patent. Both of these factors should have inspired the Wrights to disclose their idea more quickly while continuing to focus on developing and improving their aircraft design. Instead, they were consumed with lengthy exchanges with the patent office and subsequent litigation.[162]

B. Looking Ahead

As provided in the introduction to this paper, noted economist A.T. Hadley once stated: "a patent system, if *properly* guarded, seems to be thoroughly justified by its results." Over one hundred years prior, Thomas Jefferson, acting as one of the first examiners of U.S. patents proposed a shift to registration due to "insufficient time to *properly* carry out tasks assigned to them."[163] These congruent observations reveal that patent quality lies at the core of a properly functioning patent system. This quality relies on establishing a degree of confidence on the value and reach of any given patent issue. It has become abundantly clear that the closed examination process cannot establish this required level of confidence today and that this task will only grow more difficult with time.

Once again, this understanding reaches beyond the U.S. patent system. As Professor Dr. Ann highlights in his 2016 paper on patents and legal certainty:

> "Examiners who feel all too secure here may want to consider the well-known quote by *Bob van Benthem*, the EPO's first president: 'I mean . , ., that the examiner, who is sitting at his desk outside the practice, should show some modesty. He should not be a specialist. Even auditors who have a great deal of practical experience inevitably lose contact with the practical artisan problems, if they have only spent a few years in the office.'".[164]

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162 Goldstone, *supra*

163 *See* note 154

164 Ann (2016), translated with www.translate.google.com, original quote "*Ich meine . . ., dass der Prüfer, der abseits der Praxis an seinem Schreibtisch sitzt, eine gewisse Bescheidenheit an den Tag legen sollte. Er sollte sich nicht als Spezialist aufspielen. Sogar Prüfer, die große praktische Erfahrung hinter sich haben, verlieren unweigerlich in gewissem Grade den Kontakt mit den praktischen handwerklichen Problemen, wenn sie erst einige Jahre im Büro verbracht haben"*

Patent invalidity rates in Europe, Japan and the United States have been cause of ongoing concern and debate despite the tremendous resources being expended on examination each year.

The USPTO needs to acknowledge that the current patent examination process is no longer feasible. An alternative, robust and comprehensive method for ensuring patent quality is needed to avoid further loss of confidence in the system. In his 2012 article, Judge Posner goes on to echo much of today's sentiment stating "that there appear to be serious problems with our patent system, but almost certainly effective solutions as well, and that both the problems and the possible solutions merit greater attention than they are receiving."

This paper has proposed that introducing a utility parameter with return to a registration-based patent system as originally envisioned by the Founders offers a solution to these serious problems. Registration that leverages modern information technology enables the USPTO to "share the load" of patent value assessment with the public and would better represent the scheme outlined by one of America's first patent examiners, Thomas Jefferson. Jefferson based his framework on long term concerns for a newly formed nation. And for years after his tenure, he continued to emphasize the importance of properly determining which ideas were "worth to the public" of an exclusive patent right. Who better to enlist for this task than the public itself?