

# THE CLASSIC 25% RULE AND THE ART OF INTELLECTUAL PROPERTY LICENSING

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## ABSTRACT

*Fifty years ago, Robert Goldscheider helped pioneer the use of a methodology known as “the 25% Rule,” a tool for determining reasonable royalties in intellectual property licensing negotiations. The Rule holds that licensees of intellectual property normally deserve the lion’s share of the profit because they usually bear the bulk of the business risk associated with bringing the intellectual property to market. Experts familiar with the art of intellectual property licensing frequently rely on the 25% Rule to rationally determine reasonable royalties in litigation and transactional settings.*

*The Rule’s prominence has been accompanied by unfortunate misunderstandings about its form and substance. It is not, as some suggest, intended to be a simple shortcut to determine patent royalties. Rather, it was developed as, and remains, a meticulous methodology inspired by significant private transactions and ultimately refined by brilliant judicial interpretation. As such, it is inappropriate to condescendingly diminish it to a mere “rule of thumb.” When properly understood and applied, the Classic 25% Rule is an effective discipline that achieves the high standards of reliability demanded by the U.S. Supreme Court in the Daubert and Kumho Tire cases.*

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<sup>1</sup> Just prior to the publication of the Federal Circuit’s decision in *Uniloc v. Microsoft*, I met Matthew Turetzky at lunch with his grandfather, a respected friend of mine, who had told me, with justified pride, that Matthew was the *Editor-in-Chief* of the DUKE LAW & TECHNOLOGY REVIEW and hopes to specialize in the law of intellectual property. Knowing of my connection with a methodology known as the 25% Rule, Matthew phoned me immediately after the court’s opinion in the *Uniloc* case appeared. When he learned of my interest in commenting about the opinion, Matthew immediately offered his help, and that of a team of his colleagues on the DUKE LAW & TECHNOLOGY REVIEW, to assemble all of the documentation and provide any further support I might request. The Duke team, consisting of Matthew Turetzky, *Editor-in-Chief*, Alberto Araiza, *Managing Editor*; Kristen Wolff, *Chief Executive Editor*; and Gordon White, *Executive Editor* performed excellently, helping to produce what I hope will prove to be a serious contribution to this important matter.

*On January 4, 2011, the Federal Circuit, in Uniloc v. Microsoft, held that “the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation.”*<sup>2</sup>

*This decision is problematic for a variety of reasons: (1) it assumes that the 25% Rule, as it is classically understood, is a rule of thumb; (2) district courts could interpret it as prohibiting damages experts from applying the Classic 25% Rule as a tool for determining a baseline royalty rate, because of the court’s confusion between a baseline royalty rate and a “reasonable royalty” under § 284 of the Patent Act; and (3) it could denigrate the skills of true experts who have utilized, and continue to utilize, the Classic 25% Rule in a way that otherwise meets the admissibility standards of the Federal Rules of Evidence.*

*This article attempts to correct these misunderstandings in the hope of restoring some certainty in an area of jurisprudence that, unfortunately, has become an unpredictable area of the law.*

#### INTRODUCTION

¶1 On January 4, 2011, the United States Court of Appeals for the Federal Circuit published its decision in *Uniloc U.S.A., Inc. v. Microsoft Corp.*,<sup>3</sup> signed by Judge Richard Linn and resolving several issues related to the interpretation of Patent No. 5,490,216 (the ’216 patent).<sup>4</sup> The matter had been appealed from a decision by the U.S. District Court for the District of Rhode Island directed to validity, infringement, willful infringement, and damages from the infringement of the ’216 patent.<sup>5</sup> The Federal Circuit reversed the district court’s grant of judgment as a matter of law (JMOL) of noninfringement by Microsoft, affirmed the district court’s grant of JMOL of no willful infringement by Microsoft, and, “because the jury’s damages award was fundamentally tainted by the use of a legally inadequate methodology,” affirmed the grant of a

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<sup>2</sup> *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

<sup>3</sup> *Id.*, *aff’g in part, rev’g in part* 640 F. Supp. 2d 150 (D.R.I. 2009). This series of appeals, referred to by the court as *Uniloc II*, is referred to hereinafter simply as *Uniloc*. The previous string of appeals, referred to by the court as *Uniloc I*, is not mentioned in this article. See *Uniloc USA, Inc. v. Microsoft Corp.*, 290 F. App’x 337 (Fed. Cir. 2008), *rev’g* 447 F. Supp. 2d 177 (D.R.I. 2009).

<sup>4</sup> System for Software Registration, U.S. Patent No. 5,490,216 (filed Sept. 21, 1993).

<sup>5</sup> *Uniloc USA, Inc. v. Microsoft Corp.*, 640 F. Supp. 2d 150 (D.R.I. 2009), *aff’d in part, rev’d in part*, 632 F.3d 1292 (Fed. Cir. 2011).

new trial on damages to determine Microsoft's monetary liability based on its infringement of the '216 patent.<sup>6</sup>

¶2 This article is directed toward the damages issue. The pertinent language in Judge Linn's opinion is as follows:

This court now holds as a matter of Federal Circuit law that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation. Evidence relying on the 25 percent rule of thumb is thus inadmissible under *Daubert* and the Federal Rules of Evidence, because it fails to tie a reasonable royalty base to the facts of the case at issue.<sup>7</sup>

¶3 Judge Linn refers to me by name as the "leading proponent" of "the rule."<sup>8</sup> I appreciate this because, as will be explained *infra*, I have effectively employed the "the Classic version" of the Rule for over fifty years. Such use initially occurred in the marketplace, where I advised parties to patent licenses, and also frequently drafted technical assistance agreements in which patents were an element. The "Classic Rule," the name I employ throughout this article, has been used by intellectual property (IP) licensing experts since the 1970 *Georgia-Pacific* decision.<sup>9</sup> During its lifetime, as acknowledged in Judge Linn's opinion, some version of the 25% Rule has been used in literally hundreds of cases without recriminations by the parties.<sup>10</sup> If the recent Federal Circuit decision means to challenge the Classic 25% Rule, whose demise the Federal Circuit claims to be demanded by *Daubert's* progeny, then with the strike of a pen, the Federal Circuit has thrown into jeopardy hundreds of relationships applying the "reasonable royalty" standard of 35 U.S.C. § 284,<sup>11</sup> thereby confusing those transacting in the marketplace. If the

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<sup>6</sup> *Uniloc*, 632 F.3d at 1295.

<sup>7</sup> *Id.* at 1315.

<sup>8</sup> *Id.* at 1312.

<sup>9</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

<sup>10</sup> *Uniloc*, 632 F.3d at 1314–15 (citing cases in which the Classic 25% Rule as I understand it, or some misunderstood variant thereof, is relevant).

<sup>11</sup> Damages in patent infringement cases are never "less than a *reasonable royalty* for the use made of the invention by the infringer, together with interest and costs as fixed by the court." 35 U.S.C. § 284 (2006) (emphasis added). To determine what constitutes a reasonable royalty in a given case, the parties usually call professionals skilled in the art of IP negotiations to testify, as anticipated by 35 U.S.C. § 284. Relying on their experience with these transactions, the experts are expected to come up with a "reasonable royalty" based on their creation of a "hypothetical negotiation." *Uniloc*, 632 F.3d, at 1312 (citing *Wang Labs, Inc. v. Toshiba Corp.*, 993 F.2d 858, 869–70 (Fed. Cir. 1993)).

Federal Circuit intended for such results in *Uniloc*, then those involved in the art of IP licensing should be seriously concerned.

¶4 I believe the Federal Circuit has been misled about the realities of the Classic 25% Rule, which is quite distinguishable from what the Federal Circuit described in *Uniloc* as the “25% Rule of Thumb.” Therefore, I hope that the substance of this article will be taken into account by the parties—who can still petition the United States Supreme Court for *certiorari*—as well as by the district court ordered by the Federal Circuit in *Uniloc* to conduct a new trial on damages.

#### I. WHAT IS THE “25% RULE OF THUMB?”

¶5 In order to understand the rule invalidated by *Uniloc* “as a matter of Federal Circuit law,”<sup>12</sup> one must first understand the concept of “rule of thumb,” which is a flawed tool for calculating a “reasonable royalty” in patent infringement cases. “Rule of thumb” is not a descriptive term I normally employ in my work; as a matter of fact, I have criticized it.<sup>13</sup>

¶6 In an effort to confirm the accuracy of my interpretation of the term “rule of thumb,” and because the court refers to it in a legal sense, I decided to consult my copy of *Black’s Law Dictionary*. There is considerable material of interest about the term “rule.” Two quotations are directly relevant:

Rule: “to settle or decide a point of law arising upon a trial and, when it is said of a judge presiding at such a trial that he ‘ruled’ so-and-so, it is meant that he laid down, settled, or decided such-and-such to be the law.”<sup>14</sup>

The other one reads:

Rule: “precept attaching a definite detailed legal consequence to a definite detailed state of facts.”<sup>15</sup>

¶7 There are also references to many types of rules, including rule absolute, rule against perpetuities, rule nisi, rule of apportionment, rule of force, rule of laws, rule of lenity, rule of necessity, rule of

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<sup>12</sup> *Uniloc*, 632 F.3d at 1315 (emphasis added).

<sup>13</sup> I have been quite explicit on this position for over fifty years. In 1959, with only “some modest experience in licensing,” I argued against the logic of a “rule of thumb” to clients I advised because a rule of thumb “reflected a theory that all race horses are equal, and should be valued that way. I indicated that Citation and Whirlaway, two recent Triple Crown winners, were certainly worth more than an average thoroughbred, and that technologies should likewise be judged on their specific merits.” ROBERT GOLDSCHIEDER, LICENSING AND THE ART OF TECHNOLOGY MANAGEMENT § 11:4 (2d ed. 2002) [hereinafter LICENSING].

<sup>14</sup> BLACK’S LAW DICTIONARY 1195–96 (5th ed. 1979).

<sup>15</sup> *Id.*

presumption, rule of reason, and rule to show cause.<sup>16</sup> There is no reference, however, to “rule of thumb.”<sup>17</sup>

¶8 I next consulted *Webster’s New Universal Abridged Dictionary*, which did have a definition of “rule of thumb.” It reads, “a rule suggested by practical, rather than scientific knowledge; hence any way of doing things that is practical, though crude.”<sup>18</sup> I also looked at the *Random House Dictionary*, which defined rule of thumb as a “rough, practical method of procedure.”<sup>19</sup>

¶9 Without looking any further, it is obvious to me, on its face, that the “25% Rule of Thumb” should correctly run afoul of the requirements of *Daubert*, *Kumho*, and Rule 702 of the Federal Rules of Evidence.<sup>20</sup> These sources are cited by Judge Linn as requiring that expert testimony pertain to “scientific, technical, or specialized knowledge . . . based on firm scientific and technical grounding.”<sup>21</sup> Furthermore, “[e]xpert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.”<sup>22</sup> As I read Judge Linn’s language and the writings of various scholars, whose personal experiences as negotiators of patent and other IP licenses are not known to me, the “Rule of Thumb” envisaged and disapproved of by them consists simply of a fixed ratio of 25:75 for determining a baseline royalty, related respectively to the licensor and the actual or potential licensee, which then requires no further analysis to arrive at a “reasonable royalty.”<sup>23</sup>

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<sup>16</sup> *Id.*

<sup>17</sup> *Id.* There is also no reference to “rule of thumb” in the most recent edition.

See BLACK’S LAW DICTIONARY (9th ed. 2009).

<sup>18</sup> WEBSTER’S NEW TWENTIETH CENTURY DICTIONARY 1585 (2d ed. 1979).

<sup>19</sup> THE RANDOM HOUSE DICTIONARY 771 (1980).

<sup>20</sup> See *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1314 (Fed. Cir. 2011) (agreeing with my conclusion here, that experts’ testimony using arbitrary rules of thumb as a substitute for an analysis tied to the facts of a particular case is inadmissible under *Daubert*).

<sup>21</sup> *Id.* (citing *Daubert v. Merrell Dow Pharm.*, 509 U.S. 589, 589–90 (1993)).

<sup>22</sup> *Uniloc*, 632 F.3d at 1315 (citing 3 J. WEINSTEIN & M. BERGER, WEINSTEIN’S EVIDENCE ¶ 702[02] (1988)).

<sup>23</sup> See *Uniloc*, 632 F.3d at 1313–14 (citing a number of articles criticizing the 25% Rule); *id.* at 1318 (disapproving of the testimony of Uniloc’s expert, Joseph Gemini, who simply took the lowest estimated royalty base of \$10, and multiplied that number by 25% to arrive at a royalty rate of \$2.50 per license issued). It is worth noting here that Judge Linn’s opinion described Gemini’s final number as the “baseline royalty rate.” *Id.* As will be revealed in Part III *infra*, I define the Classic 25% Rule as a flexible method for estimating a baseline royalty based on credible profitability or cost savings to the licensee. Once that baseline royalty is estimated, an expert must still apply the *Georgia-Pacific* factors, as well as other factors such as The Book of Wisdom and non-

This wooden and inflexible methodology meets the definition of Rule of Thumb; it should thus, rightly, be inadmissible under Rule 702.

¶10 This “Rule of Thumb” concept, however, is quite foreign to me; it is inconsistent with the methodology I have employed during the past fifty years as a negotiator or advisor to parties in commercial negotiations, and also as an expert in litigation involving IP. These professional exercises require considerable skills, in addition to general knowledge about the markets, technologies, and businesses involved. Even when one possesses this “general knowledge,” he or she must still acquire the requisite specific experience to apply it in the transactional or litigation context. For that reason, I have frequently and appropriately referred to the discipline of IP licensing as an “art.”

¶11 That word, “art,” appears in the new title of my business-oriented publication, which evolved from a previous volume entitled *Technology Management*<sup>24</sup> to my present two-volume treatise *Licensing and the Art of Technology Management*.<sup>25</sup> Chapter Nine of that treatise is designated *The Art of Licensing Out*.<sup>26</sup> Chapter Eleven of the same work, written in 2005 and called *Royalties and Other Sources of Income from Licensing*, contains the following statement: “[O]ver the years, the 25% Rule has been described as a ‘crude tool’ and a ‘rule of thumb.’ As of [2005], I believe it has evolved into a sensitive methodology which has become widely accepted in the licensing profession.”<sup>27</sup>

¶12 Six years later, as I draft this article, my beliefs remain the same—that the Rule is a sensitive methodology, whose widespread acceptance has been merited and guaranteed its longevity in the licensing profession. In my opinion, it will still, regardless of how courts view the admissibility of the Classic 25% Rule in litigation, continue to guide the outcome of thousands of IP licensing transactions (not involving litigation) throughout the world. However, the *Uniloc* ruling could disrupt the consistency between “hypothetical negotiations” in court and actual negotiations as they occur in the real world. This development is both dangerous and unnecessary.

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infringing alternatives, discussed *infra*, to determine the final reasonable royalty. Under no circumstances do I suggest that the baseline royalty—as distinguished from a “reasonable royalty”—is the end of the analysis in a “hypothetical negotiation.” To the contrary, I contend that it is, when applicable, merely the starting point.

<sup>24</sup> ROBERT GOLDSCHIEDER, *TECHNOLOGY MANAGEMENT* (1988).

<sup>25</sup> *LICENSING*, *supra* note 13.

<sup>26</sup> *See id.* ch. 9.

<sup>27</sup> *Id.* § 11:4, at 11-9.

¶13 In view of the potentially drastic impact of the *Uniloc* decision on IP licensing, I consider it important that the decision be limited to what has become known as “The Rule of Thumb,” which is the precise term used in the opinion, and propose that “the Classic 25% Rule” remain a viable methodology for expert witnesses to use when evaluating patent royalties in infringement suits. Examples and reasons to adopt this view are provided throughout this article.

## II. THE CLASSIC 25% RULE: ITS ORIGINS AND EARLY HISTORY

¶14 I can pinpoint the exact date and place of my first serious exposure to technology licensing: June 1, 1959 in Geneva, Switzerland. For the previous two years, I had worked in Geneva as an official of the International Labour Organization, a specialized agency of the United Nations. I had been persuaded to resign this position and become special counsel to two distinguished Swiss law firms, and perhaps to be available to others, to help them seize a major opportunity. As a result of a change in U.S. tax laws, American companies were no longer required to consolidate their earnings from foreign sources. This change in accounting practices, combined with the fact that Switzerland would agree to the tax-free treatment for a wholly-owned Swiss subsidiary of a foreign parent (provided that certain lenient legal conditions were satisfied), motivated dozens of American companies to shift their foreign licensing operations to Swiss subsidiaries. Because of their regulatory climate and cultural features, Geneva and its nearby French-speaking communities became the most popular locales from which to conduct such global licensing operations. Being of English mother tongue yet fluent in French, a recent graduate of a prominent internationally-oriented law school, and a member of the Bar of the State of New York, I was ideally qualified for this practice. Better yet, I was fascinated by the nature of the work, which involved exposure to creative people dealing with important innovations. I was therefore motivated to become truly expert in this specialty and have received professional recognition for the achievement of that goal.

¶15 In light of the recent *Uniloc* holding and its potential ramifications, I have decided, for the first time, to recount in greater detail my experiences with Philco. In the past, when I wished to disclose more specific information about these transactions with the intention of giving color to the Classic 25% Rule story, I felt that I could do so only in general terms. But, having outlived both Philco and all of the people involved, I am finally able to provide the most complete version of the story to date.

¶16 In 1959, Philco Corporation, with its world headquarters in Philadelphia, was a successful, publicly-held company. It manufactured

and sold its products in the U.S. and Canada, and through licenses elsewhere throughout the world. It produced a variety of consumer and electronic products including radio/phonographs, television sets, refrigerators, and washing/drying machines. Its Vice President of International Marketing, Harvey Williams, was a pioneer in the new profession of international technology licensing. He was my much-appreciated mentor.

¶17 Philco operated internationally through eighteen arms-length licenses. Its principal competitors were General Electric, RCA, and NV Philips of the Netherlands. All three were larger than Philco. There were also smaller competitors for some of the same products, many of which were of excellent quality. Nevertheless, in this highly-competitive environment, Philco's relative position in sales in numerous territories was first or second.

¶18 There were several reasons for the Philco licensees' success:

1. Virtually every major product contained some valuable patent coverage, although none would be rated as pioneer patents. For instance, Philco introduced to market the first combination washer-dryer, the first frostless refrigerator, circuitry on electronic products featuring the latest solid state designs (which was a very new concept at the time), and television sets with fewer control knobs. All of its products were dependable, and designed to be easily-serviced.
2. Trade secrets were numerous and well-organized in loose-leaf volumes, which were available on a strictly-enforced confidential basis and regularly updated. At that time, the U.S. Department of Defense chose Philco Corporation, because of its recognized successes in automating many procedures in its own plants, to optimize production efficiency in government-operated munitions plants; the results of this valuable experience were made available to the Philco licensees.
3. Two other commitments—fulfilled by Philco as licensor—were that annual meetings of licensees would usually be organized in Philadelphia and would be attended by representatives of all the licensees. These participants developed friendly personal relationships, which promoted mutually-valuable collaboration among them. An added



contribution by Philco was that it had created a team of specialized engineers whose members were available to fly anywhere in the world on 24-hours notice to correct any serious production problems that a licensee might encounter. This service entailed special charges, but provided a cost-effective solution to potentially serious threats to profitability. I learned that very few licensors provided such personalized service.

4. Philco maintained a portfolio of housemarks and product trademarks that were available to its licensees for use with specified products. Philco's public relations department also provided photos, drawings, and other copyrighted promotional materials designed for use with specific products or for publicity across the board. These texts were sometimes provided in languages other than English. Also, key components, such as customized electronic chips and product subassemblies, were made available to licensees under favorable terms, if requested.

¶19 The licenses usually had a term of three years, which were renewable. All licensees had been carefully selected at the outset and their performance was better than satisfactory. They had no conflicts of interest with Philco. During the period that I actively advised the Swiss licensing subsidiary, excellent personal relations were maintained in the "close family," and the French and Italian licensees were acquired and made subsidiaries of the American parent. All in all, this was the proverbial win-win situation that provided profits to the parties and valuable products to the customers.

¶20 After spending two years of advising Philco on licensing activities, I noticed a pattern between the 5% royalty rate paid by each of the licensees and their respective pre-tax profitability rates. Such profitability was approximately 20% in each case. My thinking at that time was that 5% was a healthy royalty rate, and I was interested to note that it usually constituted about 25% of the profitability ultimately achieved by the various licensees. I cannot recall referring to this phenomenon as anything like "the 25% Rule," but that moniker eventually became the recognized description of the operating results that were consistently achieved.

¶21 As a result of this newly-gained intelligence, I began investigating actual or potential profitability of licensing transactions and

its influence on the setting of royalty rates. I can also recall other licensing programs in different circumstances in which the interaction of these factors yielded similar results. One client, a talented Swedish inventor, had discovered a novel procedure for cooling ingots in the course of steel manufacture. He also invented an early version of the twenty- and forty-foot shipping containers that are now ubiquitous for the secure transport of virtually all types of industrial products. A revenue treatment ratio of 3:1 between the licensee's and licensor's interests proved to be workable for both of the client's divisions, despite its application to completely unrelated industries.

¶22 Similar results were observed in the cases of various licensees of a British client who had improved a process for the manufacture of "blind" rivets and bolts, called "cold heading." These products were valuable in the construction of airplanes, cars, buses, and in the affixing of panels to hollow backs where it was not possible to secure the fasteners from inside. Because of the special qualities of these products, efficiently produced by a patented process, we were able to negotiate a royalty rate equivalent to 25% of a rapidly-growing royalty base, to the mutual satisfaction of all parties.

¶23 No standard formulae were in mind at that stage of my career. Nevertheless, these experiences helped develop my understanding of the relationship between the relevant values of technology and the potential commercial results to be achieved by its users. Indeed, the realities to which I was exposed during my Philco years became a template for me, to which I have continually referred over the years. My empirical observations, and those of other professionals with whom I shared my impressions, influenced us to move toward the formulation of a pragmatic working methodology. This atmosphere persisted for several years and our formulations continued to gain credibility because they were generating businesslike results.

### III. TYING THE MARKETPLACE TO THE COURTROOM: THE INFLUENCE OF THE LANDMARK *GEORGIA-PACIFIC* CASE

¶24 It was not until 1970, when the *Georgia-Pacific* case<sup>28</sup> was decided, that my experiences in transactional work became tied to the litigation context. *Georgia-Pacific* provided a framework within which principles of enlightened licensing negotiations could be applied in the course of litigation to determine a "reasonable royalty" under 35 U.S.C.

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<sup>28</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

§ 284, which is the standard used to determine damages for patent infringement.<sup>29</sup>

¶25 In particular, the language of the thirteenth of *Georgia-Pacific*'s fifteen factors (Factor Thirteen) articulated the framework that had been developing for several years and was appreciated at that time as a doctrine. Factor Thirteen instructs trial courts to consider “[t]he portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.”<sup>30</sup> *This factor is the embodiment of the Classic 25% Rule*; it is the predominant methodology that I and others have successfully utilized for over thirty years. This article seeks to preserve that doctrine. Several useful ancillary concepts that facilitate the application of Factor Thirteen subsequently developed. They tend to affirm and broaden Factor Thirteen's significance.

#### IV. RELATED REALITIES IN THE *GEORGIA-PACIFIC* ENVIRONMENT

¶26 Eight years after the *Georgia-Pacific* decision, Marcus B. Finnegan and Herbert H. Mintz published an article of historic importance. It was entitled *Determination of a Reasonable Royalty in Negotiating A License Agreement: Practical Pricing for Successful Technology Transfer*.<sup>31</sup> The article effectively tidied up several details in this new area of the law, and while published in 1978, its insights continue to be relevant to the subject I am addressing in 2011.

¶27 Particularly important to the focus of my commentary is a section of that article entitled *Royalty as a Function of the Next Best Alternative to Licensing Available to the Licensee*.<sup>32</sup> This passage is quoted at length because I find it directly on point:

The maximum royalty [that] would normally be acceptable to a Licensee is one that is equal to the cost of the next best available alternative. These alternatives are principally: (1) use of the technology at the risk of a lawsuit; (2) independent development of the same or similar technology; (3) design of the licensee's operations around licensor's property rights; (4) licensing of comparable property rights from another source; or (5) the

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<sup>29</sup> See 35 U.S.C. § 284 (2006).

<sup>30</sup> *Georgia-Pacific Corp.*, 318 F. Supp. at 1120.

<sup>31</sup> 1 LICENSING L. & BUS. REP. 1, 13–24 (1978). Marc Finnegan, long deceased, was the founding partner of the law firm handling the appeals in the *Uniloc* case on behalf of the plaintiff. He was a much appreciated friend of mine with whom I co-founded and co-edited the early volumes of *The Law & Business of Licensing – The Best of LES Nouvelles*.

<sup>32</sup> *Id.* at 16–17.

avoidance of any use of technology within the purview of the licensor's property rights.

Clearly a determination of these alternatives provides the licensee with a good indication of the strength and the practical value of the intellectual property to be licensed. If the licensee finds that several viable alternatives are available at relatively low cost, he will consider the intellectual property to be of limited worth and will not offer a high royalty. In contrast, if the intellectual property constitutes strong patent rights or know-how covering an important field, the licensee may find that a profitable market is accessible only through licensing. In such circumstances, he should be willing to pay a higher royalty.

Reliable estimates of the real value of the alternatives to the licensee are often difficult for either the licensor or licensee to determine. However, an effort to make reasonable estimates can be a rewarding exercise since a reasonable royalty arrived at through this method will provide the highest figure [that] the licensee should be willing to accept.<sup>33</sup>

¶28 In addition to (1) the empirically-suggested initial baseline of 25:75 and (2) *Georgia-Pacific* Factor Thirteen, I consider this axiom about the next best alternative to be the third basic element in the Classic 25% Rule.

¶29 There is a fourth concept that has become valuable to the jurisprudence relating to damages in IP litigation; it is known as "The Book of Wisdom." This concept was first cited by Judge Howard Markey, the first Chief Judge of the Court of Appeals for the Federal Circuit, in his *Fromson* opinion.<sup>34</sup> Early in *Fromson*, Judge Markey emphasized that an expert who has been retained to comment on the issue of patent infringement damages should focus on the consequences of infringement by answering the following questions:

- Is the quality of the invention, as patented, such that it is technically very difficult or economically very expensive for a third party to design around, or otherwise avoid?
- Are purchasers of the product or users of the process of which the patented invention forms a part, aware of the presence of the impact of the invention, and is

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<sup>33</sup> *Id.*

<sup>34</sup> *Fromson v. Western Litho Plate & Supply Co.*, 853 F.2d 1568 (Fed. Cir. 1988).

this awareness crucial to the decision to purchase or use?

- Is the impact of the invention such that it influences the sale of other components, assembled products and subassemblies, directly related to the invention, as well as other products such that the concepts of ‘the entire market value rule’ or ‘collateral’ or ‘convoeyed’ sales should be taken into account?<sup>35</sup>

¶30 My prior writings on this language by Judge Markey reflect my own disdain for the use of a “Rule of Thumb.” I stated that

[t]his type of qualitative analysis of the patented invention is basic to the task of an expert in reaching an opinion whether the consequential level of damages from the infringements should logically be great or small. This is the sort of reasoning in which appropriate experience and skills are really pertinent to a court in assessing damages, *rather than the mechanical application of various procedural approaches that may previously have been employed in other cases.*<sup>36</sup>

¶31 In the *Fromson* opinion, Judge Markey quoted the following language from Justice Cardozo’s opinion in *Sinclair v. Jenkins*:

At times the only evidence available may be that supplied by testimony of experts as to the state of the art, the character of the improvement, and the probable increase of efficiency or savings of expense. . . . This will generally be the case if the trial follows quickly after the issue of the patent. But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophesy. Here is a book of wisdom that courts may not neglect. We find no rule of law that sets a clasp upon its pages, and forbids us to look within.<sup>37</sup>

¶32 I expect that The Book of Wisdom may be a significant factor in determining damages to be paid by Microsoft in its new trial on damages for the infringement of the ’216 patent. The Book of Wisdom should replace the faulty methodology employed by the damages expert retained by Uniloc, who used a version of the discredited Rule of Thumb. Uniloc’s damages expert also did not appropriately apply the *Georgia-Pacific* factors, wrongly attempted to inflate the royalty base by misuse of the entire market value rule, and was rightly criticized by Judge Linn. It seems to me that there is considerable relevant information about the

<sup>35</sup> LICENSING, *supra* note 13, § 18:2, at 18-5.

<sup>36</sup> *Id.* at 18-6 (emphasis added).

<sup>37</sup> *Fromson*, 853 F.2d at 1575 (quoting *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 698 (1933)).

respective contributions of the parties that can clarify, in the new trial on damages, the level of royalties that would be “reasonable” in these particular circumstances.

## V. THE ESSENCE OF THE CLASSIC 25% RULE

### A. *The Classic 25% Rule is Not a Rule of Thumb*

¶33 As I understand The Rule of Thumb, as considered by Judge Linn in *Uniloc*, the parties assume that the licensor is entitled to 25% of the defined profitability pie of a particular technology transfer, with the licensee automatically receiving the remaining 75% of the pie. According to The Rule of Thumb, this division is made at the outset of discussions, with no further analysis. This inflexible selection, the so-called “25% Rule of Thumb,” is what I believe the Federal Circuit considered to be “a fundamentally flawed tool for determining a baseline royalty rate.”<sup>38</sup> As I have already indicated, I agree with Judge Linn’s opinion on this point, because such rigidity is a crude, inappropriate shortcut, avoiding what should be a skilled and detailed analysis.<sup>39</sup>

### B. *The Flexibility of the Classic 25% Rule*

¶34 From the foregoing observation, the contrast between The Rule of Thumb and the Classic 25% Rule becomes clear, although both have the intent to fix patent infringement damages by dividing revenues in a hypothetical negotiation. Under the Classic 25% Rule, a dividing ratio is *tentatively* chosen at the outset of the hypothetical negotiation—one that is possibly, but not necessarily, equal to 25:75, depending on the prior experience of the parties or their initial impressions at the outset of the exercise. This is nevertheless a matter that should be considered further in each case, taking into account the specific conditions affecting the respective parties in the relevant market. These days, the tentative baseline remains subject to revision by experts in accordance with the *Georgia-Pacific* factors and other available sources of information in order to arrive at a reasonable royalty. Such available sources of information include possible non-infringing alternatives, the Book of Wisdom, statistical collections of licensing terms by industry, and precedents of well-accepted judicial opinions. This analytical framework reflects my understanding of the Classic 25% Rule, which I have “practiced while I preached.” To contend that I have maintained that every hypothetical negotiation should begin at 25:75 and remain fixed is incorrect and misleading. These assignments should be customized bodies of work; they always require tailoring.

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<sup>38</sup> *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

<sup>39</sup> The same criticism applies in the marketplace as well as in the courtroom.

¶35 My “basic tool kit” consisting of the Classic 25% Rule and its ancillary concepts has also proven to be effective in analyzing and suggesting acceptable solutions in an impressive range of commercial as well as judicial situations. A selection of these scenarios is described in Subsection D *infra* to demonstrate that this sophisticated methodology—which should be considered as the antithesis to any Rule of Thumb—is worthy of being retained in the good graces of the law.

¶36 It will be noted *infra* that I decided on several occasions to use a baseline ratio as a function of incremental (sometimes referred to as “marginal”) operating profits, other than 25:75. This was because my *prima facie* impression was that the relative contributions of the parties justified a different tentative ratio. Such initial baselines (from 15:85 up to 80:20) were still open to further modifications, taking into account the other prongs of analysis, namely interpretation of the pertinent *Georgia-Pacific* factors, non-infringing alternatives and the Book of Wisdom.

¶37 By shifting the initial baseline closer to the final ratio decision, the second “tuning” process is made easier and the results are more sensitive. In the future, I intend to be even more alert to the implementation of the primary baseline selection, because this could increase accuracy in the final results, and perhaps even promote more settlements between litigating parties.

### C. Properly Valuing IP Using The Classic 25% Rule

¶38 As a result of legislation, administrative action, and greater accessibility to the marketplace by internet-powered technologies, it has become increasingly important for companies to understand the value of their technologies. Procedures have developed to conduct appraisals of these assets for numerous applications. The Sarbanes-Oxley Act,<sup>40</sup> enacted by Congress in 2002, has greatly accelerated this development. Thus, in addition to management’s interest in understanding the technical significance of its IP portfolio, serious attention is also being given to IP financial valuations as a matter of both law and business.

¶39 There are three basic methodologies that have been traditionally used when valuing IP: the income, market, and cost approaches. The Classic 25% Rule falls within the scope of the income approach. The market approach attempts to locate similar situations that could have precedential value. The cost approach describes the expense to replace the existing asset should it be damaged or destroyed. Although I typically utilize the income approach, I usually attempt to verify my valuation by referencing one or both of the other approaches to ensure that my final result will be accepted as reasonable.

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<sup>40</sup> Sarbanes-Oxley Act of 2002, Pub. L. 107-204, 116 Stat. 745 (2002).

¶40 Regardless of which approach is chosen, the relevant issues remain the same when appraising the monetary value of IP. IP valuation has many well-known elements and criteria, including sound market research, analyses of the significance and enforceability of the patents, reasoned forecasts of growth and profitability, sophisticated employment of spreadsheets, and other intangibles. A specific technique that has proven to be effective is often referred to as the Royalty/Relief from Royalty approach,<sup>41</sup> which attempts to answer the following question: What would the proprietor itself reasonably pay for its intangibles being measured at this time and under present circumstances? It is assumed that the proprietor does *not* own its own rights, but wishes to acquire an exclusive, paid-up, worldwide license to such rights, and has the resources to make such an acquisition. There is a further assumption, almost always confirmed, that no one is as familiar with the strengths and weaknesses of the property being evaluated—and the outside factors affecting its value—than the proprietor itself.

#### *D. Several Pertinent Projects Undertaken and Completed*

¶41 Against this background, consider the following projects in which my firm and I personally have been involved:

##### *1. Merck & Co. – Non-medical inventions*

¶42 Merck, a leading pharmaceutical company, internally solved three pollution problems it faced as a result of its manufacturing and research operations. One invention addressed the issue of unacceptable air emissions; another dealt with hazardous water conditions (the same problem dramatized in the film, *Erin Brockovich*<sup>42</sup>); and the third responded to soil contamination. These were truly impressive innovative projects. Equally impressive was the formidable patent protection obtained by Merck on these innovations.

¶43 The Company considered three possible strategies:

- Set up a new company to exploit the technologies through service contracts for sales of specialty equipment plus sales of specialty chemicals and equipment. This entity could be a wholly-owned subsidiary or a joint venture with a qualified engineering contractor.

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<sup>41</sup> See THE LESI GUIDE TO LICENSING BEST PRACTICES: STRATEGIC ISSUES AND CONTEMPORARY REALITIES (Robert Goldscheider ed., Wiley 1st ed. 2002).

<sup>42</sup> ERIN BROCKOVICH (Jersey Films 2000).



- License the technologies to third parties by an internal team to be organized by the company, perhaps with the collaboration of consultants.
- Donate the technologies to the United Nations, the Environmental Protection Agency and/or equivalent foreign government agencies, or other non-profit entities, and take tax deductions.

¶44 Before deciding the course of action, Merck proceeded to have the three technologies appraised. I was approached to perform what our firm called a Dynamic Technology Audit for each technology—an appraisal employing the Classic 25% Rule together with the Royalty/Relief from Royalty approach. We performed three DTAs, and the client made its key researchers and executives, patenting records, and market research available to my team. The results of the appraisals confirmed that every one of these technologies was extremely valuable.

¶45 The company then considered its alternatives. It reasoned that all of the strategies would draw resources away from its core business, which was the discovery, licensing, and development of new drugs. The decision was therefore made to donate the technologies to qualified government agencies. I agreed because I appreciated the large capital investments required to establish these pollution control activities as profit centers. The donation route provided a significant balance sheet benefit without disturbing the company's basic mission.

## 2. *Dow Chemical and W.R. Grace*

¶46 A dramatic and successful employment of the Classic 25% Rule occurred in the early 1990s in the course of negotiations between two major petrochemical companies, Dow Chemical Company and W.R. Grace. Dow was a leading manufacturer of polyethylene, with annual sales exceeding \$1 billion. Its process (P-1) required the purchase from Grace of an intermediate compound (Y) in annual orders of over \$400 million. Dow owned a patent on P-1, which would expire in seven years. It decided to switch all of its future production of polyethylene to P-2, a new production technology developed by Dow's research teams. This switch was made primarily for cost reasons, but also because P-2 was more flexible than P-1 in producing different grades of polyethylene.

¶47 P-2 did not require Grace's Y in the production of polyethylene. Rather than simply abandoning P-1, however, Dow decided to offer Grace the opportunity to become the exclusive worldwide licensee of P-1. Such a license was cost-effective to Grace because, as a basic producer of Y, Grace could—using the P-1 process—profitably manufacture polyethylene. Another attraction of such a license was that it could compensate Grace for lost sales of Y to Dow.

¶48 Grace was interested in taking such a license to P-1 and offered to pay a seemingly reasonable 5% running royalty on its sales of polyethylene manufactured by the P-1 process. Dow, with my advice, tested the reasonableness of this offer by applying the Classic 25% Rule, which involved the analysis of data Dow had recorded when using its P-1 technology. Dow also understood the market for polyethylene, past and present, and had realistic projections for the future.

¶49 Dow conducted such a study because it intended to remain in the market for polyethylene, utilizing P-2. Dow was also able to calculate pro forma profitability to Grace by subtracting Grace's price and margin on its prior sales of Y to Dow for use in P-1. This analysis revealed that Grace should be able to operate as a licensee under Dow's P-1 patent at an operating profit of 44%. Dow shared its fully-documented analysis with Grace and asked Grace to "please tell us if we are wrong." If not, Dow expected to receive an 11% royalty based on Grace's sales of polyethylene using Dow's patented P-1 process, calculated as a 25% piece of the known profitability pie, rather than the 5% that was offered. Following study of Dow's work product, Grace (somewhat surprised) agreed with Dow's conclusion, and accepted Dow's terms because they would still make a 33% operating profit under the license, which was higher than Grace's normal corporate operating profit rate. Over the remaining life of its P-1 patent, this additional 6% royalty amounted to an added profit of several hundred million dollars to Dow.

¶50 This transaction highlights several benefits of using the Classic 25% Rule:

- It showcases how the Rule adequately represents the relative bargaining position of the parties. In this transaction, Dow had the advantage of 20/20 hindsight because of its comprehensive knowledge of the market for polyethylene. By comparing its knowledge of the costs of production and expected profitability of possible continued use of P-1, it could simply pull Grace's financials from its SEC filings and determine whether Grace would be able and willing to pay more than the 5% royalty it was offering. This makes the Rule particularly useful in the litigation context, where discovery and access to experts all but guarantees the advantages of hindsight and accurate projections.
- Successful application of the Classic 25% Rule adds value to both parties. Without P-1, Grace would have been squeezed out of the market for

polyethylene; also, the value of its intermediate polymer, Y, would have been greatly reduced because Dow was the primary purchaser of it. Without Dow as a purchaser, Grace needed a license to P-1 in order to produce polyethylene, and thus, get full benefit from its production of Y. This successful employment of the Classic 25% Rule resulted in (1) Dow making more profit than it would have if it just accepted Grace's offer of 5% without further investigation; (2) a financially-advantageous transaction for Grace, whose profits on the production of polyethylene still remained higher than its overall company operating margins; and (3) a lifeline thrown to Grace, which would have lost hundreds of millions of dollars of sales of Y had it not agreed to the transaction. This is the quintessential win-win, which is the textbook goal of *every* commercial transaction and which provides convincing evidence of the practical effectiveness of the Classic 25% Rule. This result could never have been achieved if the parties had merely attempted to employ a 25% Rule of Thumb.

### 3. Other Examples

¶51 In my research for this article, I examined my files on several other matters, the factual details of which are less significant than their providing evidence of the wide variety of activities in which the Classic 25% Rule operated effectively. I have therefore decided to refer merely to the subject matter of these projects to demonstrate my point. I selected seven that, respectively, involved (i) an auction for the licensing of patented specialty syringes attended by several competitors; (ii) advice to a venture capitalist and an entrepreneur about the likelihood of success of an investment in a new technology; (iii) suggesting a logical lump sum settlement of a patent infringement case; (iv) settlement of an estate tax problem following the death of the inventor of a popular copyrighted game; his trademark was also involved; (v) predicting the value at auction of a small portfolio of new patents for the benefit of the bank, which was the lead creditor of the patentee/bankrupt party; (vi) suggesting the sale price of a water company that had the attractive and accurate name, and registered trademark, "Appalachian Spring"; and (vii) appraising the comparative values of two \$150 million divisions that a major French company, for strategic reasons, wanted to swap with its U.S. subsidiary, so that a concern about horrible tax problems was removed when the U.S. Internal Revenue Service accepted our

conclusion that the technologies being considered for the change were of equivalent value.

VI. A SUCCESSFUL EMPLOYMENT OF THE CLASSIC 25% RULE IN  
MAJOR PATENT INFRINGEMENT LITIGATION: *HUGHES*  
*AIRCRAFT CO. V. UNITED STATES*

¶52 *Hughes Aircraft Co. v. United States*<sup>43</sup> was the largest litigation in my career, in which I appeared as an expert witness. I understand it is still regarded as an important case in U.S. patent infringement litigation. It occupied the majority of my professional time during the 1988 calendar year and provided me with the greatest challenge and the most genuine satisfaction I have experienced in the numerous expert witness assignments I have undertaken in more than thirty-five years.

¶53 Briefly, this was a portion of the case dealing with damages that the U.S. government would be required to pay to Hughes based on the already-decided infringement of the so-called Williams Patent.<sup>44</sup> This invention governed a maneuver called “precession,” which plays a role in enabling a satellite to achieve a geosynchronous orbit. This means that such satellite, once it reaches its desired position in space, would essentially remain in the same location when observed from a point on Earth. This is desirable in some cases because it permits the satellite to be continuously observed and controlled by ground-based operators and equipment.

¶54 My testimony on direct and cross-examination is contained in 781 pages of transcript.<sup>45</sup> This testimony included accounts of the following:

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<sup>43</sup> See *Hughes Aircraft Co. v. United States*, 15 Cl. Ct. 267 (Cl. Ct. 1988); see also *Hughes Aircraft Co. v. United States*, 15 Cl. Ct. 550 (Cl. Ct. 1988).

<sup>44</sup> Velocity Control and Orientation of a Spin-Stabilized Body, U.S. Patent No. 3,758,051 (filed Aug. 21, 1964).

<sup>45</sup> Transcript of Testimony of Robert Goldscheider, *Hughes Aircraft Co. v. United States*, 15 Cl. Ct. 267 (1988) (No. 426-73). I obtained a copy of the transcript of my testimony, in three volumes, through the courtesy of the U.S. Department of Justice. My views about the calculation of reasonable royalties under 35 U.S.C. § 1498 were explored in detail by counsel for both sides. This testimony provides a record of the high quality and considerable quantity of work that went into the formulation of my testimony. I will be glad to furnish interested persons with a copy of the complete transcript, at the cost of reproduction and shipment. Such persons should contact Ken Schoppmann, Director of the Licensing Executives Society (U.S.A. & Canada) Inc., 1800 Diagonal Road, Arlington, VA 22314-2840, who will forward requests to me.

- My extensive preparations, including visits to five different U.S. government space-related facilities, on both the East and West coasts;
- Acquiring sufficient understanding of the significance of the Williams Patent to be able to appreciate and formulate effective strategies that were appropriate in the face of claims advanced on Hughes's behalf;
- Studying the testimony of the two eminent licensing executives who had been selected by Hughes to provide opinions on damages resulting from the infringement of the Williams Patent by the United States. Each of these experts concluded that a 15% royalty rate based on the cost of each satellite in which infringement occurred would be "reasonable" under §1498. That conclusion would result in the United States owing damages to Hughes worth several billion dollars;
- Learning to appreciate the special contributions of the U.S. government through the creation of the space program and the market for products and technologies to be employed therewith;
- Analyzing each accused satellite and developing a methodology to understand the relative importance of the Williams Patent to the execution of the missions in which it operated; and
- Reducing the baseline ratio from 25:75 to 15:85.

¶55 My opinion, even at the end of my testimony, was that the reasonable royalty rate payable by the United States to Hughes for the infringement of the Williams Patent was 1% of the cost of each launched satellite that employed the Williams Patent, prior to supplementary statutory payments for delay. Judge James Turner agreed and held that the reasonable royalty rate was 1%.<sup>46</sup> His decision was appealed to the Court of Appeals for the Federal Circuit where it was unanimously affirmed.<sup>47</sup>

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<sup>46</sup> See *Hughes Aircraft Co. v. United States*, 31 Fed. Cl. 481, 491 (Fed. Cl. 1994) (concluding "that a reasonable royalty rate to be applied to total spacecraft cost for the government's use of the Williams invention is one percent").

<sup>47</sup> *Hughes Aircraft Co. v. United States*, 86 F.3d 1566, 1566 (Fed. Cir. 1996). Hughes' unsuccessful appeal was argued by Kenneth Starr, Esq.

¶56 Prior to writing this article, I reread the entire transcript of my testimony in the Hughes case. I also compared my work in 1988 with the Federal Circuit’s reasoning in the 2011 *Uniloc* case. Naturally, I focused on the court’s negative reaction to the “25% Rule of Thumb.” When reading my testimony in the Hughes case, I was very gratified to note that it perfectly conformed to my description of “The Classic 25% Rule” in this article. I therefore hope that the district court, which will shortly hear the remanded case on damages in *Uniloc*, will be made aware of this similarity, limit the inadmissibility commanded by *Uniloc* to the correctly maligned “Rule of Thumb,” and thus refrain from throwing the baby out with the bathwater.

#### CONCLUSION

¶57 I have appreciated this opportunity to review and comment about the Rule that has played an important part in my career and which has been widely considered and frequently used effectively in the dynamic licensing profession. It is my desire that this analysis will enable the Classic 25% Rule to survive the Federal Circuit’s opinion and assuage the concerns of its critics. As a loyal member of The Licensing Executives Society, who has been proud to receive its Gold Medal, I hope these thoughts will prove helpful to my peers as they pursue their careers around the world.

¶58 I would like to conclude with one final point. One of the most impressive clients with whom I have had the privilege to work over the years is The Coca-Cola Company. Several years ago, their senior management presided over an unfortunate decision to alter the formula of their lead product. This led to a storm of criticism, and the company promptly returned to its traditional course and brought back its storied beverage, with the addition of the title “Classic.” By using the same description for the weathered 25% Rule, I hope to restore it to a widely-respected role in the world of licensing and technology management.