

## Apportionment of Lost Profits in Contemporary Patent Damages Cases

ERIC E. BENSEN<sup>†</sup>

### ABSTRACT

Apportionment, the requirement that patentees quantify the portion of their lost profits attributable to their patents before recovering lost profit damages for infringement, is still good law, but is largely ignored in modern patent cases. This trend is not entirely surprising. The complex rules governing apportionment were developed against a very different legal framework than exists today, and as a result it is not readily apparent how the apportionment doctrine would apply to a contemporary lost profits claim. Even the few modern authorities that have addressed the issue do not agree as to whether apportionment of lost profits is required. Given the multiplicity of patents covering many modern products, though, it is only a matter of time before apportionment is rediscovered as an important part of patent disputes.

This Article fills the void among modern authorities by providing a *comprehensive* guide to apportionment of lost profits damages. Specifically, the Article details the current state of apportionment, provides a succinct statement of the apportionment rules for modern cases, refutes authorities that suggest apportionment is no longer required, and analyzes the individual cases and statutes from which the apportionment rules were derived.

---

© 2005 Virginia Journal of Law & Technology Association, at <http://www.vjolt.net>. Use paragraph numbers for pinpoint citations.

<sup>†</sup> Eric Bensen is an attorney with Paul, Hastings, Janofsky & Walker LLP in New York where he focuses his practice on intellectual property litigation and licensing.

# TABLE OF CONTENTS

I.	Introduction.....	2
II.	Contemporary Apportionment.....	5
A.	Brief Background.....	5
1.	The Origins of Apportionment.....	5
2.	The Purposes Served by Apportionment.....	7
B.	The Apportionment Rules for Contemporary Disputes.....	11
C.	Apportionment in Modern Cases.....	13
1.	<i>W.L. Gore</i> .....	14
2.	<i>Rite-Hite</i> and <i>Perego</i> .....	16
3.	<i>Grain Processing Corp.</i> and <i>Ferguson</i> .....	18
D.	The Statutory Underpinning for Contemporary Apportionment.....	21
III.	The History of Apportionment.....	23
A.	The Patent Damages Statutes.....	23
1.	The Early Patent Acts.....	23
2.	The Development of Infringer’s Profits as a Form of Recovery.....	24
3.	The 1870 Act.....	25
4.	The 1922 and 1946 Acts.....	26
B.	The Apportionment Cases.....	29
1.	Infringement by Manufacture or Sale.....	30
2.	Infringement by Use.....	37
3.	The Trustee <i>Ex Malificio</i> Theory.....	41
4.	Nominal Damages/Reasonable Royalty.....	42
C.	Apportionment of the Patentee’s Lost Profits.....	45
IV.	Conclusion.....	45



## I. INTRODUCTION

¶1 Your case is not going well. The patentee proved that *one* of the components in your product infringes its patent, and also proved that without the infringing component, you would not have made *any* sales of your product. The two of you sell your virtually identical products containing the patented component in a two-supplier market, so each sale of your product was shown to be a lost sale to the patentee. The patentee established the amount of profits it would have made on each lost sale of its product and now wants to recover its *entire* lost profits on the lost sales of its product. How do you respond?

¶2 “I write the patentee a check” might be the wrong answer. The right answer might be that you argue to the court that because your product contains a number of significant components, each of which you have a right to make and sell and each of which contributes to the market value of the product, you should only be required to compensate the patentee for the lost profits attributable to the patented component, which the patentee has the burden of showing. Depending on the evidence, you may even be able to argue

that you owe *no* lost profits to the patentee because the patentee failed to meet its burden of *apportioning* its total profit on each product to that portion of the profit attributable to the patented invention, and therefore, the patentee should only recover a reasonable royalty.<sup>1</sup> What is better, this argument will likely succeed.

¶3 If that sounds surprising, it is because modern patent damages cases rarely address apportionment. But it was not always this way. Historically, apportionment was often a central issue in patent cases. Indeed, between 1853 and 1915, the Supreme Court addressed apportionment more than thirty-five times in patent damages decisions, sometimes in two or three decisions in the same year.

¶4 The modern paucity of apportionment case law stems from two factors. First, while the general principle underlying apportionment is fairly straightforward, its application varies in many subtle but important ways depending on the type of patent at issue and the type of infringement committed. Obtaining a full understanding of these subtleties requires familiarity with the many cases that together laid the groundwork for the apportionment doctrine, and the majority of which were decided more than a century ago. To understand those cases, moreover, one must also be familiar with the very different legal framework that judges used to decide these cases. Only then can one fairly gauge how apportionment would apply in a contemporary case.

¶5 Second, while the apportionment doctrine stands to play its most significant role in lost profit cases,<sup>2</sup> there is sharp disagreement among contemporary scholars and judges as to whether apportionment is even relevant to the calculation of lost profits claims. Some have taken the view that under the appropriate circumstances, patentees must apportion their lost profits in order to establish a right to recover.<sup>3</sup> Others, however,

---

1. Depending on the circumstances, there are ways in which a patentee may be able to respond effectively to this type of argument. Some of these arguments will be discussed in detail later in this article. For instance, the patentee may have a credible argument that its patent is properly characterized as a patent for an “entire device,” which would effectively place the burden on the defendant to apportion. *See infra* Part III.B.1.a. The patentee may also be able to meet its burden of apportionment by showing that, notwithstanding other elements of the product, the entire market value of the product is actually attributable to the patent. *See infra* Part III.B.1.c.

2. Apportionment is occasionally addressed by courts in the reasonable royalty context, usually with respect to determining the revenue base to which the royalty rate should be applied. *See, e.g.,* *Medtronic, Inc. v. Catalyst Research Corp.*, 547 F. Supp. 401, 414–15 (D. Minn. 1982). However, because the determination of a reasonable royalty takes “into consideration both the nature of the patented invention and its relation to the entire machine as a whole,” other courts have found such analysis unnecessary. *Marconi Wireless Tel. Co. of Am. v. United States*, 99 Ct. Cl. 1, 47 (1942) (“It would make no difference in the ultimate compensation to plaintiff if the reasonable royalty were fixed at 5 percent of the selling price of the complete machine rather than 20 percent of one quarter of the sales price of the machine.”). Apportionment is also occasionally addressed by courts in the established royalty context. *See, e.g.,* *Marvel Specialty Co. v. Bell Hosiery Mills, Inc.*, 386 F.2d 287, 291 (4th Cir. 1967). However, established royalties will not usually give rise to difficult apportionment problems because established royalties are themselves usually acceptable as a measure of the patentee’s damages. *See* *Burdell v. Denig*, 92 U.S. 716, 720 (1875). It is not the intent of this article to explore apportionment in the reasonable royalty or established royalty contexts.

3. *See, e.g.,* *Allen v. W.H.O. Alfalfa Milling Co.*, 272 F.2d 98, 100 (10th Cir. 1959) (upholding apportionment of lost profits where the unpatented portion of the infringing device had a separate market value); *Universal Athletic Sales Co. v. American Gym*, 480 F. Supp. 408, 414 (W.D. Pa. 1979) (awarding

believe that apportionment is *not* required to recover lost profits because patentees need only show “but for” causation to recover lost profits.<sup>4</sup> In other words, if a patentee can show that the infringer could not enter a market without infringing a particular patent, then the infringer is liable for the patentee’s entire lost profits because “but for” the infringement, the infringer would not have entered the market and caused the patentee to lose sales.<sup>5</sup>

¶6 It is only a matter of time, however, before the apportionment doctrine again takes center stage in lost profit cases. The concerns addressed by the Court in apportionment cases—mainly that without apportionment, an infringer may be forced to pay more than once for the same act of infringement, and a patentee may unlawfully expand the scope of its patent—are no less relevant today. In fact, given the tendency of many modern products to be covered by a multitude of patents, these concerns are only magnified. Moreover, the Federal Circuit has been moving towards requiring apportionment requirement in lost profit cases, albeit slowly and not expressly.

¶7 Thus, while the subject of apportionment is undoubtedly a difficult one,<sup>6</sup> given

---

lost profits on just the infringing component of a multi-station piece of exercising equipment); *see also* Karen D. McDaniel & Gregory M. Ansems, *Damages in the Post-Rite Hite Era: Convoyed Sales Illustrate the Dichotomy in Current Damages Law*, 78 J. PAT & TRADEMARK OFF. SOC’Y 461, 467 (1996) (“When the patented component does not serve as the basis of customer demand for the entire machine, but rather represents only a small part of the total value of the machine, the court engages in an ‘apportionment’ analysis. Apportionment requires a court to undertake the difficult task of determining the relative contribution of the patented feature to the value of the entire structure.”); B. Coggio et al., *Damage Control: What an Adjudged Infringer Can Do to Minimize the Resulting Damage*, 15 AIPLA Q.J. 250, 296 (1987) (“[W]here profits are made from the sale of a device or product which includes an infringing element or component but less than the entire market value is attributable to the patented element, damages may be apportioned, based on the degree to which the value of the patented component contributed to the sales of the entire device.”).

4. *See* *W.L. Gore & Assocs., Inc. v. Carlisle Corp.*, 198 U.S.P.Q. 353, 364 (D. Del. 1978) (“Once the fact that sales have been lost has been proven, there is no occasion for the application of apportionment.”); *Saginaw Prods. Corp. v. Eastern Airlines, Inc.*, 196 U.S.P.Q. 129, 133 (E.D. Mich. 1977) (“Numerous cases have treated the entire market value rule as a ‘but for’ inquiry.”); Brent Rabowsky, *Recovery of Lost Profits on Unpatented Products in Patent Infringement Cases*, 70 S. CAL. L. REV. 281, 285, 295 (1996) (“[U]nder current law, there is never a need to apportion lost profits between patented and unpatented items. . . . [A]pplication of the entire market value rule and the generic ‘but for’ causation test eliminates the need for apportionment.”); Ned L. Conley, *An Economic Approach to Patent Damages*, 15 AIPLA Q.J. 354, 371, 373 (1987) (“However, the concept of recovery of lost profits, as uniformly applied by the courts, does not admit to dividing the patent owner’s lost profits according to any perceived value contributed by the invention. . . . It is submitted that the district court in *W.L. Gore* set forth the proper approach for determining the scope of damages due to lost sales.”); *see also* *Hughes Tools Co. v. G.W. Murphy Industries, Inc.*, 491 F.2d 923, 928 (5th Cir. 1974) (noting the appeal of, but ultimately rejecting on the facts, plaintiff’s argument that “[w]hether or not the article would have some commercial usefulness without the patented feature is irrelevant where it is clear that the patentee would have made the sale of the article had not the defendant infringed”).

5. Interestingly, under that view, not only is there no need for apportionment, there is no need for the entire market value rule. *See infra* Part III.B.1.c.

6. Hopefully, however, it will not appear as difficult as Judge Learned Hand found it to be in 1933. *See* *Cincinnati Car Co. v. New York Rapid Trans. Corp.*, 66 F.2d 592, 593 (2d Cir. 1933) (“The difficulty of allocating profits in such cases has plagued the courts from the outset, and will continue to do so, unless some formal and conventional rule is laid down, which is not likely. Properly, the question is in its nature unanswerable.”).

the current trend towards large damage awards, it is worth understanding this potentially valuable doctrine. After presenting a brief history of apportionment, Part II of this Article focuses on the immediate question of the role apportionment plays in modern lost profit cases. More specifically, Part II provides a succinct statement of the apportionment rules as they would apply in modern cases, and refutes authorities that suggest apportionment is no longer required. Because there is little in the way of contemporary case law to illustrate the specific applications of apportionment, Part III acts as a guide, by offering a comprehensive discussion of historical patent damages statutes and apportionment cases that were instrumental in the development of the apportionment doctrine. For ease of reference, the discussion of case law in Part III.B is organized around the statement of modern apportionment rules in Part II.B. This Article concludes that apportionment is not only required in many modern lost profit cases, but, as a practical matter, is also necessary to balance the interests of the patent holder and the patent holder's competitors.

## II. CONTEMPORARY APPORTIONMENT

### A. Brief Background

#### 1. The Origins of Apportionment

¶8 Patent damages apportionment can be traced back to 1853, when the Supreme Court decided two landmark cases: *Livingston v. Woodworth*,<sup>7</sup> a case in equity, and *Seymour v. McCormick*,<sup>8</sup> a case at law.<sup>9</sup> While not strictly an apportionment case, *Livingston* was significant because it was the first time the Court addressed the issue of the proper rule for computing an infringer's profits.<sup>10</sup> The master in *Livingston* had been directed to ascertain the profits that "may have been, or, with due diligence and prudence, might have been, realized by the defendants" from their use of the infringing machine—a machine used to plane lumber.<sup>11</sup> While the defendants actually made a profit of \$0.50 per thousand feet of board planed, the master charged them with a profit of \$1.00 per thousand feet.<sup>12</sup> The master justified the award by arguing that because the defendants were wrongdoers, they could be held accountable for damages beyond what they received from the infringing use, "the rule being not what benefit they have received, but what injury the plaintiffs have sustained."<sup>13</sup>

¶9 The Supreme Court rejected the master's report, stating that it was "aware of no rule which converts a court of equity into an instrument for the punishment of simple torts."<sup>14</sup> In rejecting that master's report, the Court held that the profits recoverable by

---

7. 56 U.S. 546 (1853).

8. 57 U.S. 480 (1853).

9. The separation of law and equity before 1937 and its impact on the development of apportionment law is discussed in Part III.

10. *Root v. Ry. Co.*, 105 U.S. 189, 194 (1881).

11. 56 U.S. at 555.

12. *Id.* at 556.

13. *Id.*

14. *Id.* at 559.

the patentee should have been limited to the “actual gains and profits of the [defendants] . . . during the time their machine was in operation and during no other period.”<sup>15</sup> Thus, *Livingston* established the principle that a patentee’s recovery for infringement in equity, at least where the infringer’s profits were sought, was limited to profits actually made.

¶ 10 During the same term, the Court directly addressed apportionment for the first time in *Seymour*. The plaintiff in *Seymour* had two patents for improvements to a grain-reaping machine, but proceeded to trial on only one of them.<sup>16</sup> Over an objection by the defendant, the trial court instructed the jury that, in calculating damages, it made no difference whether the patent was for the entire machine or merely for an improvement to it.<sup>17</sup>

¶ 11 On appeal, the defendant argued that the jury charge was erroneous because it allowed the patentee to recover the same damages it would have received for the infringement of one patent as it would have been awarded if it had proceeded on both of its patents.<sup>18</sup> The Court agreed.<sup>19</sup> In explaining its decision, the Court drew a distinction between patents disclosing an entirely new machine, for which patentees could choose to retain the exclusive right both to manufacture the machine and to supply demand for that machine at their own price, and patents on machine *improvements*, for which patentees could not “monopolize”<sup>20</sup> the manufacture and sale of the underlying machine.<sup>21</sup> In the former situation, patentees would be entitled to the entire profit on any sales lost to an infringer, because those sales would necessarily have gone to the patentee.<sup>22</sup> The same, however, could not be said in the latter situation.<sup>23</sup> Accordingly, the Court held that it was a “grave error to instruct a jury ‘that as to the measure of damages the same rule is to govern, whether the patent covers an entire machine or an improvement on a machine.’”<sup>24</sup> *Seymour* thus established the principle that a patentee’s recovery at law was limited to losses attributable to the patented invention.

¶ 12 In the following years, the Court made a number of attempts in cases at law and

---

15. *Id.* at 560; *see also* *Keystone Mfg. Co. v. Adams*, 151 U.S. 139, 148 (1894) (holding that it was an error to permit the patentee to prove the infringer’s profit by showing other manufacturers’ profits).

16. *Seymour*, 57 U.S. at 485.

17. *Id.* at 486.

18. *Id.* at 488.

19. *Id.*

20. Of course, patents confer no true monopoly, which can occur only when the sovereign withdraws rights all had previously enjoyed and restricts practice to one entity. Rather, patents grant upon the creator of something novel statutory exclusivity for a deferred period in exchange for disclosure. *See* *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 974 (4th Cir. 1990) (“The monopolies granted by the Crown had been odious because they restrained trade in articles that had been a part of the public domain. An invention, however, does not withdraw anything from public traffic; rather, it introduces something new. To encourage and reward inventors for increasing the inventory of useful objects, the government grants them, for a limited time, the right to exclude others from making and selling their inventions.”); *see generally* ROGER M. MILGRIM, *MILGRIM ON LICENSING* § 7.03 (2003).

21. 57 U.S. at 489.

22. *Id.*

23. *Id.* at 490.

24. *Id.* at 491.

equity to define the core principle underlying the apportionment doctrine,<sup>25</sup> but did not construct a “general rule”<sup>26</sup> until 1884 in *Garretson v. Clark*.<sup>27</sup> The patent in *Garretson* covered an improved mop-head construction.<sup>28</sup> The court below had rejected the patentee’s claim that it was entitled to both the defendant’s entire profit and its own entire lost profit. The claim was rejected on the grounds that the plaintiff failed to show that the entire value of the mop resulted from the patented improvement.<sup>29</sup> Because the patentee offered no evidence showing what portion of the mop’s value was attributable to the patented improvement, the court below awarded only nominal damages.<sup>30</sup> The Supreme Court, quoting the lower court’s holding, affirmed, stating that:

The patentee . . . must in every case give evidence tending to separate or *apportion* the defendant’s profits and the patentee’s damages between the patented feature and the unpatented feature, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributed to the patented feature.<sup>31</sup>

¶ 13 *Garretson* is considered the leading case for the basic apportionment rule.<sup>32</sup>

## 2. The Purposes Served by Apportionment

¶ 14 In developing the apportionment requirement, the Court had two specific purposes in mind: (i) to avoid what might be called the “multiple patent problem,” that is, the possibility that an infringer might be forced to pay more than once for the same act of infringement where its product embodied two or more patents, and (ii) to avoid allowing patentees to expand the scope of their exclusive rights beyond that granted by the patent. These purposes are discussed in greater depth below.

---

25. See, e.g., *Littlefield v. Perry*, 88 U.S. 205, 229 (1874) (equity) (“The true inquiry is as to the profits which the defendants have realized as the consequence of the improper use of these improvements. Such profits belong to the plaintiff, and should be accounted for to him. The account of the master may not charge the defendants with more than the complainant is entitled to recover.”); *Philip v. Nock*, 84 U.S. 460, 462 (1873) (law) (“Where the infringement is confined to a part of the thing sold, the recovery must be limited accordingly.”); *Mowry v. Whitney*, 81 U.S. 620, 651 (1871) (equity) (holding that the patentee was entitled to recover the profits gained by the infringer from using the patented process over “other processes then open to the public and adequate to enable him to obtain an equally beneficial result”).

26. *Westinghouse v. N.Y. Air Brake Co.*, 140 F. 545, 549 (2d Cir. 1905) (“The general rule governing recoveries in infringement cases is stated . . . in *Garretson*.”); see also *Dobson v. Hartford Carpet Co.*, 114 U.S. 439, 445 (1885).

27. 111 U.S. 120, 121 (1884).

28. *Id.*

29. *Id.*; *Garretson v. Clark*, 10 F. Cas. 40, 41–42 (C.C.N.D.N.Y. 1878).

30. 10 F. Cas. at 41, 44.

31. 111 U.S. at 121 (internal quotations omitted) (emphasis added).

32. See, e.g., *Dobson*, 114 U.S. 439, 445 (1885) (noting that the “true rule” for apportionment was formulated in *Garretson*).

### a. Avoiding the “Multiple Patent” Problem

¶ 15 The “multiple patent” problem arose when the defendant’s product infringed not only the plaintiff’s patent for a device improvement, but also one or more patents owned by third parties. If the patentee of an improvement could recover the entire profit on an infringing machine, then

[E]ach one who has patented an improvement in any portion of a [machine] may recover the whole profits arising from the skill, labor, material, and capital employed in making the whole machine, and the unfortunate mechanic may be compelled to pay treble his whole profits to each of a dozen or more several inventors of some small improvement in the [machine] he has built.<sup>33</sup>

¶ 16 This principle was embraced by the Court in *Mowry v. Whitney*, a case involving a patented process for making improved cast iron railroad wheels.<sup>34</sup> Prior to the invention at issue in *Mowry*, railroad wheels had been manufactured using a process that rapidly chilled the periphery of the wheel, making the periphery stronger.<sup>35</sup> The chilling process, however, created a strain between thick and thin parts of the wheel because they cooled unevenly.<sup>36</sup> Under the patented process, wheels would be put back into a furnace at controlled temperatures to ensure that all parts of the wheel cooled evenly, thereby avoiding any strain.<sup>37</sup> The patentee sought the infringer’s entire profits on the manufacture of the wheels, but, echoing *Seymour*, the Court rejected the patentee’s claim:

If the wheels made by the defendant would have had no market value above that of cast iron had they not been [made by the patented process], the same may be said if they had been cast without a chill. The same principle, therefore, which gives to the complainants the aggregate profits of the entire manufacture would give the same profits to a patentee of the process of chilling, if there were one, and as there are many processes in the manufacture, for each of which it is conceivable there might be a patent, and as every one of the processes is necessary to make a marketable wheel, an infringer might be mulcted in several times the profits he had made from the whole manufacture. We cannot assent to such a rule.<sup>38</sup>

¶ 17 Accordingly, the Court held that the court below erred in awarding the patentee the infringer’s entire profit on wheels it manufactured using the patented process.<sup>39</sup>

---

33. *Seymour*, 57 U.S. at 490.

34. 81 U.S. 620 (1871).

35. *Id.* at 639.

36. *Id.*

37. *Id.* at 641.

38. *Id.* at 650–51.

39. *Id.* at 650; *accord* *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 553 (1886) (“We think the master made proper allowances for all other causes which could have affected the plaintiff’s prices; that the proper deduction was made for the use of the Rosner [patented] device in the defendant’s lock; and that the damages awarded are no greater than the testimony warranted.”); *Blake v. Robertson*, 94 U.S. 728, 733–34 (1876) (“[I]nventions covered by other patents were embraced in [defendant’s] machines. It was not shown



## b. Avoiding the Unlawful Expansion of the Scope of the Patent

¶ 18 In situations where the other technologies embodied in the product at issue were not patented, no danger existed that infringers would have to disgorge their profits more than once. Thus, there was no need to guard against the multiple patent problem.<sup>40</sup> Nonetheless, apportionment was necessitated by a second principle that guided the Court: the exclusive rights granted to a patentee are limited. Patents have always been limited in a number of respects.<sup>41</sup> For instance, patent exclusivity must be limited to a certain period of time.<sup>42</sup> Early on, courts also recognized that a patentee's entitlements are limited by their exercise; in other words, once a patented product is lawfully sold, the patent is "exhausted" and the patentee no longer has any rights in the product.<sup>43</sup>

¶ 19 The protection conferred by a patent, of course, is also limited in its scope.<sup>44</sup>

---

how much profit was due to those other patents, nor how much of it was manufacturer's profit. The complainant was, therefore, entitled only to nominal damages."); *Garretson*, 10 F. Cas. at 43–44 ("In the case of a machine embodying several patented improvements, in infringement of several patents belonging to several different persons, each patentee would claim that it was his particular patented improvement which caused the machine to dominate the market, and each would claim the profits of the manufacture and sale of the entire machine, and damages based on the same principle."); see also *Dobson*, 114 U.S. at 444 ("The carpet with the infringing design may be made on an infringing loom, and various infringing processes or mechanisms for carding, spinning, or dyeing may be used in making it, and, if the entire profit in making and selling it is necessarily to be attributed to the pattern, so it may as well, on principle, be attributed to each of the *other infringements*, and a defendant might be called on to respond many times over for the same amount. There is but one safe rule: to require the actual damages or profits to be established by trustworthy legal proof." (emphasis added)).

40. See *P.P. Mast & Co. v. Superior Drill Co.*, 154 F. 45, 55 (6th Cir. 1907) ("When some other invention is employed and contributes to the profits, the infringer is liable to that party also, and he is entitled to be guarded against being compelled to pay two different parties for the same thing; but that difficulty does not arise when only things open to public use are used in the patented combination.").

41. For a general discussion regarding limitations on the exclusive rights granted under a patent, see Eric E. Bensen, *Understanding the Federal Circuit on Patent Damages for Unpatented Spare Parts*, 12 FED. CIR. B.J. 57, 60–65 (2002).

42. See *Pennock v. Dialogue*, 27 U.S. 1, 16–17 (1829) ("The constitution of the United States has declared, that congress shall have power 'to promote the progress of science and useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries.' It contemplates, therefore, that this exclusive right shall exist but for a limited period . . .") (alteration in original).

43. See *Chaffee v. Boston Belting Co.*, 63 U.S. 217, 223 (1859) ("When the patented machine rightfully passes to the hands of the purchaser from the patentee, or from any other person by him authorized to convey it, the machine is no longer within the limits of the monopoly."). In modern parlance, this principle is recognized as the "exhaustion doctrine." *Jazz Photo Corp. v. Int'l Trade Comm'n*, 264 F.3d 1094, 1105 (Fed. Cir. 2001) ("The unrestricted sale of a patented article, by or with the authority of the patentee, 'exhausts' the patentee's right to control further sale and use of that article by enforcing the patent under which it was first sold."). However, for the patentee's narrow ability to restrict products to defined uses and to limit his licensees to defined fields, see generally MILGRIM, *supra* note 20, § 8.36; 2 HERBERT HOVENKAMP ET AL., IP AND ANTITRUST § 33.4 (2002).

44. See *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278 (1877) ("But the courts have no right to enlarge a patent beyond the scope of its claims as allowed by the Patent Office . . . . When the terms of the claim in a patent are clear and distinct (as always they should be), the patentee, in a suit brought upon the patent, is bound by it. He can claim nothing beyond it.") (citations omitted); see also *Seymour*, 57 U.S.

Typically, the limited scope of a patent arises as a defense to infringement.<sup>45</sup> However, a patent's limited scope not only sets the contours of infringement, but also limits a patentee's recovery for infringement.<sup>46</sup> One illustration of this principle is found in *Dowagiac Manufacturing Co. v. Minnesota Moline Plow Co.*, where the patent at issue was for an improvement to a grain drill.<sup>47</sup> Specifically, the patent disclosed a construction and arrangement for spring pressure rods that made the drill suitable for work on uneven ground.<sup>48</sup> The Court observed that while the spring rods were an important part of the drill, they did not obviate the need for the other parts that made the drill operative.<sup>49</sup> Accordingly, the Court stated that

[T]he evidence, although showing that the invention was meritorious and materially contributed to the value of the [machines], made it clear that their value was not entirely attributable to the invention, but was due in a substantial degree to the unpatented parts or features. . . .

In so far as the profits from the infringing sales were attributable to the patented improvements they belonged to the plaintiff, and in so far as they were due to other parts or features they belonged to the defendants.<sup>50</sup>

¶ 20 Thus, in light of the limited scope of a patent, courts did not allow recovery for profits attributable to the nonpatented parts of the infringing product.<sup>51</sup>

---

at 489 (“The mode of ascertaining actual damages must necessarily depend on the peculiar nature of the monopoly granted.”).

45. See, e.g., *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458 (1938) (rejecting argument by patentee that a competitor contributorily infringed its patent by selling unpatented raw materials to licensees of the patented method who were required under their licenses to purchase those raw materials from patentee); *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931) (rejecting argument by patentee, which licensed its patent for a transportation package for dry ice to customers on the condition that they purchase dry ice from the patentee, that competing dry ice manufacturer contributorily infringed its patent by selling dry ice to customers it knew to be using the patented package); *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917) (rejecting argument by patentee, which licensed a patent for a movie projector to a projector manufacturer on the condition that the manufacturer include on the projector a notice requiring users to use the projector only with movies made using an expired process patent owned by the patentee, that its patent was infringed by the defendant who used the projector with a movie not made with the patented process).

46. Bensen, *supra* note 41, at 62.

47. *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 642–43 (1915).

48. *Id.* at 645.

49. *Id.* at 645–46.

50. *Id.* at 646.

51. See, e.g., *Blake v. Robertson*, 94 U.S. 728, 734 (1876) (awarding nominal damages where the patentee failed to show, among other things, how much of its profit was the manufacturer's profit as opposed to profit attributable to its patent); *Metallic Rubber Tire Co. v. Hartford Rubber Works Co.*, 275 F. 315, 322 (2d Cir. 1921) (“The authorities hold that any profit gained by a defendant from the use of what was old prior to the date of the patent infringed cannot constitute any part of the compensation to be award to the patentee.”); *Westinghouse v. N.Y. Air Brake Co.*, 140 F. 545, 550 (2d Cir. 1905) (“When the patented improvement is one of subordinate importance, or the value of the machine as a whole depends more upon the presence of the unpatented parts, a finding that the marketable value of the whole has been created by the patented part can seldom be correct.”); *Fay v. Allen*, 30 F. 446, 448 (C.C.N.D.N.Y. 1887) (“The complainants' combination is undoubtedly an improvement upon the old machines; it does the desired work faster and better; but those who use it should only be required to pay for those improvements which accomplish these results.”); *Calkins v. Bertrand*, 8 F. 755, 758 (C.C.N.D. Ill. 1881) (“If the other

## B. The Apportionment Rules for Contemporary Disputes

¶ 21 As the foregoing illustrates, the principle underlying apportionment is relatively straightforward: the patentee is only entitled to recover the benefit derived from infringement of the patent. Determining the extent of that benefit, however, required the application of complex rules governing apportionment. Those rules varied depending on whether a particular infringer *manufactured and sold* a patented device or whether the infringer *used* a patented device or method. In manufacturing and sale cases, these rules also depended on whether the patent was for an “entire device”—i.e., an entire device, a new combination, or a new article of manufacture—or an *improvement* to an existing device. Other complications arose when patentees tried to avoid strict apportionment by showing that the “entire market value rule” applied—i.e., that the entire market value of the product was due to the patented invention.

¶ 22 The rules governing apportionment were developed between 1853 and 1915, a period in which many cases addressed apportionment. The most significant of these cases are discussed in detail in Part III. Surprisingly, though, there is virtually no meaningful discussion of those rules in modern cases. Nevertheless, by starting with the historical rules and taking into account pertinent changes in patent damages law since those rules were developed,<sup>52</sup> the current apportionment rules can be restated for contemporary cases as follows:

### 1. Type of Infringement

#### a. Manufacture and Sale

- i. **Patent for an Entire Device:** The patentee does not have the initial burden of apportionment; rather the defendant has the initial burden of showing that the improvements it added, if any, added value to the product.<sup>53</sup>

---

parts of the machine which go to make the whole a complete and operative organism manufactured by defendants are covered by patents in which complainant has no interest, or even if they are public property, the complainant cannot claim profits made by the use of such parts, even in combination with his device.”); *see also* *Wallace & Tiernan Co. v. Syracuse*, 45 F.2d 693, 695 (2d Cir. 1930) (noting that an allowance for ordinary profits was proper when the patent did not cover the entire device); *cf.* *Porter Needle Co. v. Nat’l Needle Co.*, 22 F. 829, 830 (C.C.D. Mass. 1885) (“If the patent covers only part of the mechanism, then it should appear what portion of the license was paid for its use, and what portion for the use of other inventions embodied in the machine.”).

52. Historically, a patentee seeking to recover the infringer’s profits, which are no longer available as such, could avoid strict apportionment by showing that the “trustee *ex malificio*” theory applied, i.e., that for one reason or another, apportionment was shown to be impossible. *See infra* Part III.B.3. Prior to 1946, when the patent damages statute was changed to guarantee a patentee at least a reasonable royalty, a patentee who failed to meet its burden of apportionment would be entitled to only nominal damages. *See infra* Part III.B.4.

53. *See infra* Part III.B.1.a.

- (a). **Infringer’s “Improvement” Adds No Value:** The entire profit on the device is presumed to be attributable to the patent.<sup>54</sup>
- (b). **Infringer’s Improvement Adds Value:** The burden is on the patentee to apportion the value of the product to the patented invention.<sup>55</sup>
- ii. **Patent for an Improvement or Component:** The patentee has the initial burden to apportion the value of the product to the patented improvement or component.<sup>56</sup>
- iii. **Entire Market Value Rule:** The patentee can meet its burden of apportionment by showing that the entire market value of the infringer’s product is attributable to the patent.<sup>57</sup>
- b. **Use:** The patentee has the burden of establishing the benefit the defendant received from using the patented method or device instead of other methods or devices available to the defendant that would have achieved similar results.<sup>58</sup>

---

54. See *infra* Part III.B.1.a.i.

55. See *infra* Part III.B.1.a.ii.

56. See *infra* Part III.B.1.b.

57. See *infra* Part III.B.1.c.

58. See *infra* Part III.B.2. As a practical matter, infringement by use will almost never give rise to apportionment issues in modern cases because (i) the end product or service is almost always achievable by other means (a patent’s value will usually lie in its ability to provide a cheaper way to achieve a product or service) such that the sale of the product or service by itself does not cause lost sales in a legal sense, *see, e.g., Devon Distrib. Corp. v. Miner*, 331 F. Supp. 2d 791, 798 (S.D. Iowa 2004) (“There is no case law to support Plaintiff’s contention that it should be able to recover [lost profits] for work that Defendants performed using the allegedly infringing machine or machines as a business competitor of Plaintiff.”), and (ii) the additional profits the infringer enjoys from the use of the patented machine or process are not recoverable as such, *see infra* Part III.A.4. Nonetheless, infringement by use is treated separately here for several reasons. One is historical; many significant apportionment cases arose in the infringement by use context, *see infra* Part III.B.2, and as a result, a discussion of apportionment without a separate discussion of those cases would be incomplete. Another reason is that the rule that an infringer’s profits are not recoverable is not well grounded. *See infra* Part III.A.4. Thus, while it is not likely, it is certainly possible that the issue will be revisited and the rule reversed at some point, making apportionment of an infringer’s profits from infringing use a live issue once again. Finally, while courts adhere to the rule against recovering an infringer’s profits, patentees have, as a practical matter, sometimes recovered damages of an amount equal to or closely tied to the infringer’s profits. *See, e.g., Grain Processing Corp. v. Am. Maize- Prods. Co.*, 185 F.3d 1341, 1347 (Fed. Cir. 1999) (noting that the district court had set a royalty rate based on the cost savings the infringer enjoyed from practicing the patent plus a small premium to account for cost fluctuations and the risk the infringer could have eliminated by licensing the product); *Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 655 (Fed. Cir. 1985) (using the infringer’s profits as a measure of the patentee’s lost profits). In all events, it is helpful to consider the apportionment rules applicable to infringement by use cases separately because they are applicable in contemporary infringement by use cases to determine the base, i.e., the portion of the profit attributable to the patent, to which the reasonable royalty rate is to be applied. *See, e.g., Standard Mfg. Co. v. United States*, 42 Fed. Cl. 748, 765–66 (1999).

2. **Reasonable Royalties:** If the patentee fails to apportion where it has the burden to do so, it will be entitled to only a reasonable royalty.<sup>59</sup>

### C. Apportionment in Modern Cases

¶ 23 One reason for the scant treatment of apportionment in modern cases is the view, originating in the latter part of the 20th century, that the sole test for lost profits is simple “but for” causation—i.e., “but for causation limited only by foreseeability”<sup>60</sup>—and that, therefore, patentees are not required to apportion their lost profit damages.<sup>61</sup> This view is not unreasonable. After all, it is counter-intuitive to conclude that an infringer can cause a foreseeable injury through its infringing act, but then only be required to compensate the patentee for a portion of that injury, as the apportionment rules often dictated.<sup>62</sup> Additionally, case law exists that arguably supports the proposition that apportionment of lost profits is no longer required; the District Court of Delaware held so expressly in 1978,<sup>63</sup> and the Federal Circuit, in cases such as *Rite-Hite Corp. v. Kelly Co.*<sup>64</sup> and *King Instruments Corp. v. Perego*,<sup>65</sup> appears to have adopted a simple “but for” test for lost profits that, if taken to its extreme, would preclude apportionment. Moreover, modern cases offer few tools to rebut this argument. While there are a small number of cases in which courts actually apportioned lost profits,<sup>66</sup> in many apportionment cases, courts have applied the entire market value rule and thereby avoided a substantive discussion of apportionment.<sup>67</sup> In light of these developments and the changes in patent damages law that have occurred since most apportionment cases were decided, it is not surprising that many have concluded that apportionment is no longer required. That conclusion, however, is incorrect. Apportionment should continue to be required in lost profit cases.

¶ 24 Contemporary authorities supporting apportionment in lost profits cases neither add

59. See *infra* Part III.B.4.

60. *Rite-Hite Corp. v. Kelly Co.*, 56 F.3d 1538, 1546 (Fed. Cir. 1995) (“If a particular injury was or should have been reasonably foreseeable by an infringing competitor in the relevant market, broadly defined, that injury is generally compensable absent a persuasive reason to the contrary.”).

61. See sources cited *supra* note 4.

62. 7 DONALD S. CHISUM, CHISUM ON PATENTS, § 20.03[1][c][i] (1999) (“Whatever purposes apportionment served with respect to equitable recovery of infringer profits, it clearly did not apply with equal force to a damage recovery where the basic theory was one of making the patent owner whole for all of the losses covered by the infringer’s wrongdoing.”).

63. See *W.L. Gore & Assocs., Inc. v. Carlisle Corp.*, 198 U.S.P.Q. 353, 364–65 (D. Del. 1978).

64. 56 F.3d at 1545.

65. 65 F.3d 941, 952 (Fed. Cir. 1995).

66. See sources cited *supra* note 3.

67. See, e.g., *Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 656 (Fed. Cir. 1985) (affirming district court’s refusal to apportion lost profits where the entire market value rule applied); *Electric Pipeline, Inc. v. Fluid Systems, Inc.*, 250 F.2d 697, 700 (2d Cir. 1957) (rejecting defendant’s apportionment argument because “the patent . . . gave value to the [unpatented] components which otherwise would have been useless . . . and would not have been sold . . .”); *Nat’l Rejectors, Inc. v. A.B.T. Mfg. Corp.*, 188 F.2d 706, 709 (7th Cir. 1951) (agreeing with the master’s conclusion that “the utility of all infringing rejectors and their acceptance by the public is ‘almost’ entirely due to the features within the protection of the patent” and affirming the master’s “refus[al] to apportion the profits amongst other factors contained in them”).

to the Supreme Court precedent on this issue nor expressly refute contrary authorities. Accordingly, they will not be addressed here. In light of the clear Supreme Court precedent on apportionment,<sup>68</sup> it is best when examining the contemporary role of apportionment to focus on the authorities that either expressly hold that apportionment is not required, or that inferentially support such a holding. Thus, one must first examine cases such as *W.L. Gore & Associates, Inc. v. Carlisle Corp.*, where the District Court of Delaware expressly held that apportionment is no longer required,<sup>69</sup> as well as *Rite-Hite* and *Perego*. The latter two cases both held that the patent damages statute provides a “but for” test for lost profits,<sup>70</sup> and therefore appear consistent with *W.L. Gore*. As a comparison, it will then be helpful to examine two other cases, *Grain Processing Corp. v. American Maize-Products Co.*<sup>71</sup> and *Ferguson Beauregard/Logic Controls v. Mega Systems, LLC*,<sup>72</sup> in which the Federal Circuit moved towards adopting apportionment of lost profits in principle, if not in name.

### 1. *W.L. Gore*

¶ 25 *W.L. Gore* might be considered the “leading” case for the proposition that apportionment is not required in lost profits cases.<sup>73</sup> In that case, the plaintiff brought suit alleging the infringement of two patents: patent No. ’292, which disclosed a process for applying polytetrafluoroethylene (“PTFE”) to flat multi-conductor ribbon cable used in computer equipment, and patent No. ’956, which disclosed a process for achieving a precise alignment of conductor wire within PTFE coated cable to eliminate echoes and distortion.<sup>74</sup> Earlier in the proceeding, the ’956 patent was held to be invalid.<sup>75</sup>

¶ 26 In considering damages for infringement, the special master found that the only other “electrically acceptable flat cable constructions required the use of bulkier configurations, which would not meet the specifications necessary for computer applications.”<sup>76</sup> Finding that the plaintiff and defendant were the only sources of supply for the relevant market, the master concluded that the plaintiff would have made each of the sales procured by the defendant in the absence of infringement.<sup>77</sup> Accordingly, the master awarded the plaintiff all of its lost profits on those sales.<sup>78</sup>

¶ 27 The defendant objected to the master’s findings on the grounds that, *inter alia*, the master failed to apportion the plaintiff’s lost profits between those attributable to the ’292

---

68. See cases discussed *supra* Part II.A.1. The Court has not overturned or in any way limited its decisions concerning apportionment.

69. *W.L. Gore & Assocs., Inc. v. Carlisle Corp.*, 198 U.S.P.Q. 353, 364–65 (D. Del. 1978); CHISUM, *supra* note 62, § 20.03[1][c][i].

70. *Rite-Hite*, 56 F.3d at 1545; *Perego*, 65 F.3d at 952–53.

71. 185 F.3d 1341, 1349 (Fed. Cir. 1999).

72. 350 F.3d 1327, 1346 (Fed Cir. 2003).

73. CHISUM, *supra* note 62, § 20.03[1][c][ii] (discussing *W.L. Gore* at length).

74. *W.L. Gore*, 198 U.S.P.Q. at 356–57.

75. *Id.* at 357.

76. *Id.* at 359.

77. *Id.*

78. *Id.* at 360.

patent and those attributable to the invalidated '956 patent.<sup>79</sup> Specifically, the defendant argued that because PTFE flat laminated cable had no commercial value without the precise alignment of the conductors—i.e., the technology disclosed by the invalid '956 patent—the master had erred by awarding the plaintiff its entire lost profit for the infringement of the '292 patent.<sup>80</sup> The defendant relied on “several pre-1946” cases, including *Garretson*<sup>81</sup> and *Dowagiac Manufacturing*,<sup>82</sup> for the proposition that the plaintiff had the burden of apportioning damages.<sup>83</sup>

¶ 28 The court noted that as a result of the 1946 amendment to the patent damages statute,<sup>84</sup> an infringer’s profits were no longer available as a form of recovery.<sup>85</sup> It then observed that none of the cases cited by the defendant were applicable because each involved apportionment of an infringer’s profits.<sup>86</sup> The court ultimately held that “[o]nce the fact that sales have been lost has been proven, there is no occasion for the application of apportionment.”<sup>87</sup> In other words, in the court’s view, the analysis was over once “but for” causation was shown.

¶ 29 The court’s basis for rejecting apportionment, however—that apportionment only applied to those cases awarding infringer’s profits, and that an infringer’s profits are no longer available as a remedy—was wrong. Contrary to the court’s implicit conclusion that apportionment was limited to cases where infringer’s profits were sought, apportionment was also required where a patentee sought recovery for its lost profits.<sup>88</sup> It is true such cases were not common,<sup>89</sup> but they were not exceptional either. In fact, some of the leading apportionment cases were brought at law,<sup>90</sup> where courts could not award infringer’s profits.<sup>91</sup> Further, in cases after 1870, when patentees could seek both infringer’s profits and lost profits in equity, courts applied the same apportionment principles to both claims.<sup>92</sup> In all events, the Court could not have been clearer than it was in *Garretson* when it held that “[t]he patentee . . . must in every case give evidence tending to separate or apportion the defendant’s profits and the *patentee’s damages*

---

79. *Id.*

80. *Id.* at 364.

81. See discussion *supra* Part II.A.1. (discussing *Garretson*).

82. See discussion *supra* Part II.A.2.b. (discussing *Dowagiac Mfg.*).

83. *W.L. Gore*, 198 U.S.P.Q. at 365.

84. See *infra* Part III.A.4.

85. *W.L. Gore*, 198 U.S.P.Q. at 365.

86. *Id.*

87. *Id.* at 364.

88. See discussion *infra* Part III.C.

89. For an explanation as to why, see discussion *infra* Part III.A.3.

90. See *Philip v. Nock*, 84 U.S. 460, 461 (1873); *Seymour*, 57 U.S. at 486.

91. See *Birdsall v. Coolidge*, 93 U.S. 64, 69 (1876) (“Where the suit is at law, the measure of damages remains unchanged to the present time, the rule still being, that the verdict of the jury must be for the *actual* damages sustained by the plaintiff . . .” (emphasis added)); *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1442 (Fed. Cir. 1998) (“In 1897 the courts of law were granted the power to grant injunctions in patent cases, and to award both the infringer’s profits and the patentee’s damages . . .”).

92. See, e.g., *Westinghouse v. N.Y. Air Brake Co.*, 140 F. 545, 550, 552 (2d Cir. 1905) (reversing court below and directing reduction of damages to nominal damages where patentee failed to apportion either its lost profits or the infringer’s profits). In fact, there does not appear to be any recorded case where a court did *not* apply the same principles to each.

between the patented feature[s] and the unpatented features . . . .”<sup>93</sup> Under closer scrutiny, therefore, the holding in *W.L. Gore* that apportionment is not required in lost profits cases must be rejected.

## 2. *Rite-Hite and Perego*

¶ 30 A number of Federal Circuit cases can be fairly read to adopt a simple “but for” standard for lost profits. The most notable of these cases are *Rite-Hite*<sup>94</sup> and *Perego*.<sup>95</sup> In *Rite-Hite*, the defendant sold a mechanism for restraining trucks to loading docks that infringed the plaintiff’s patent, but that competed directly with an unpatented version of the product sold by the plaintiff.<sup>96</sup> In a key passage discussing the patent damages statute, the Federal Circuit held that, with respect to lost sales, the statutory standard articulated by the Court “surely states a ‘but for’ test” limited only by the foreseeability of the lost sales.<sup>97</sup> Because lost sales of the plaintiff’s competing device were foreseeable and would not have occurred “but for” the defendant’s infringement, the court held that the plaintiff was entitled to its entire lost profits even though the device did not incorporate the patent.<sup>98</sup>

¶ 31 Notwithstanding its apparent adoption of a simple “but for” rule for lost profits, *Rite-Hite* is not a refutation of the apportionment doctrine. As an initial matter, the court in *Rite-Hite* never mentions apportionment. This omission is particularly telling given that the parties presented arguments addressing apportionment in their briefs.<sup>99</sup> Moreover, the Federal Circuit cannot overturn Supreme Court precedent addressing apportionment.<sup>100</sup> It appears that *Rite-Hite* tried to circumvent that precedent by arguing that Congress eliminated apportionment by the passage of the 1946 Act.<sup>101</sup> As discussed *infra*, however, this argument is incorrect,<sup>102</sup> and it was not even addressed, much less adopted, by the Federal Circuit.<sup>103</sup>

93. *Garretson*, 111 U.S. at 121 (emphasis added); *see also* *Eastern Paper Bag Co. v. Continental Paper Bag Co.*, 142 F. 517, 519 (C.C.D. Me. 1905) (“As to both damages and profits, the rule as to apportionment seems to be the same as [in] *Garretson v. Clark* . . . .”); *Welling v. La Bau*, 34 F. 40, 43 (C.C.S.D.N.Y. 1888) (distinguishing patentee’s claim for lost profit from other apportionment cases solely on the ground that patentee’s patent was for a new composition of matter).

94. 56 F.3d at 1545 (holding that the statutory standard for measuring patent infringement damages “surely states a ‘but for’ test”).

95. 65 F.3d at 952 (“To recover lost profits damages for patent infringement, the patent owner must show that it would have received the additional profits ‘but for’ the infringement.”).

96. *Rite-Hite*, 56 F.3d at 1543.

97. *Id.* at 1545–46.

98. *Id.* at 1549.

99. Corrected Brief for Appellant Kelly Co., Inc. at 16–23, *Rite-Hite*, 56 F.3d 1538 (Nos. 92-1206, 92-1260), 1992 WL 12014710 [hereinafter Kelly Brief]; Principal Brief for Plaintiff/Cross-Appellants *Rite-Hite Corp.* at 17–18, *Rite-Hite*, 56 F.3d 1538 (Nos. 92-1206, 92-1260), 1992 WL 12014711 [hereinafter *Rite-Hite* Brief].

100. *Cf. Rodriguez de Quijas v. Shearson/American Express, Inc.*, 490 U.S. 477, 484 (1989) (holding that Courts of Appeal should “leav[e] to th[e] Court the prerogative of overruling its own decisions”).

101. *Rite-Hite* Brief, *supra* note 99, at 17–18.

102. *See infra* Part III.A.4.

103. *Rite-Hite*, 56 F.3d at 1544–45 (superficially discussing the non-controversial proposition that a patent should be “fully” compensated for infringement, but not discussing, e.g., what that means where an infringing product contains infringing *and* noninfringing components).



¶32 In any event, notwithstanding the parties' arguments purporting to address apportionment, the Federal Circuit *Rite-Hite* was not truly presented with a substantive apportionment argument. Defendant Kelly's apportionment arguments were either focused on patent damages law generally or focused entirely on the plaintiff's product.<sup>104</sup> What Kelly did *not* argue was that some part of the value of its product was attributable to something other than Rite-Hite's patent.<sup>105</sup> In other words, Kelly failed to claim that Rite-Hite's lost sales were caused in part by Kelly's lawful exercise of rights other than those protected by Rite-Hite's patent. Neither did it claim that Rite-Hite's award should therefore have been reduced by the value of those other rights.<sup>106</sup> Perhaps Kelly concluded it would not prevail on the merits of such an argument. Nonetheless, the absence of this argument means that the issue of apportionment was not squarely before the court.

¶33 Just as in *Rite-Hite*, the court in *Perego* purported to adopt a simple "but for" standard for lost profit damages.<sup>107</sup> The patent at issue in *Perego* concerned a splicing assembly for connecting magnetic tape to the leader tapes of an audio or video cassette.<sup>108</sup> An optional accessory offered by the defendants with their product infringed the patent.<sup>109</sup> Defendants' product competed with the plaintiff's product, but the plaintiff did not offer a corresponding accessory and, in fact, did not use the patented invention in any of its products.<sup>110</sup> The Federal Circuit held that the patentee was entitled to its lost profits on each sale that it would have made "but for" defendants' infringement, and upheld the district court's award of lost profits for forty-nine of the defendants' seventy-seven sales.<sup>111</sup> The majority devoted most of its opinion to justifying the award by highlighting what it believed to be the breadth of the patent damages statute.<sup>112</sup>

¶34 Certainly, *Perego* could be read as a rejection of the apportionment doctrine, in that under the apportionment doctrine, the plaintiff would never have been entitled to its entire lost profit on lost sales of a product where its patent was infringed by an *optional* accessory to the infringer's competing product.<sup>113</sup> This interpretation, however, would be a misreading of *Perego*. As an initial matter, neither the court's opinion nor the briefs

---

104. Kelly Brief, *supra* note 99, at 16–23; Appellant Kelly Co., Inc.'s Combined Reply Brief and Response to Cross-Appeal at 4–8, *Rite-Hite*, 56 F.3d 1538 (Nos. 92-1206, 92-1260), 1992 WL 12014713 [hereinafter Kelly Reply Brief]; Appellant Kelly Co., Inc.'s Supplemental Brief for En Banc Review at 9–14, *Rite-Hite*, 56 F.3d 1538 (Nos. 92-1206, 92-1260), 1994 WL 16015052 [hereinafter Kelly Supp. Brief].

105. See generally Kelly Brief, *supra* note 99; Kelly Reply Brief, *supra* note 104; Kelly Supp. Brief, *supra* note 104.

106. Cf. *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 549, 553 (1886).

107. *Perego*, 65 F.3d at 952.

108. *Id.* at 944–45.

109. *Id.* at 955 (Nies, J., dissenting in part).

110. *Id.* at 947 (majority opinion), 955 (Nies, J., dissenting in part).

111. *Id.* at 953 (majority opinion); *King Instrument Corp. v. Perego*, 737 F. Supp. 1227, 1242 (D. Mass. 1990).

112. E.g., *Perego*, 65 F.3d at 947 ("Section 284 imposes no limitation on the types of harm resulting from infringement that the statute will redress. The section's broad language awards damages for any injury as long as it resulted from the infringement.").

113. Obviously, an *optional* accessory could not provide the entire market value of the product. Thus, under traditional rules, apportionment would have been required. See *infra* Part III.B.1.c.

on appeal mention apportionment; thus, the issue was never even before the court.<sup>114</sup> Second, the Federal Circuit in *Perego* was no more able to overturn Supreme Court precedent than it was in *Rite-Hite*.<sup>115</sup> Finally, in more recent cases, the Federal Circuit has quietly moved away from *Perego* and has begun to reintegrate apportionment principles into patent damages analyses, albeit under the guise of “but for” causation, in a way that can only be viewed as a rejection of the remarkably expansive reading of the patent damages statute in *Perego*.<sup>116</sup> Over time, therefore, *Perego* is more likely to be seen as an aberration than as a doctrinal rejection of apportionment.

### 3. *Grain Processing Corp. and Ferguson*

¶<sup>35</sup> Like *Rite-Hite* and *Perego*, *Grain Processing Corp.* and *Ferguson* purport to apply the “but for” standard to the patentee’s claim for lost profits.<sup>117</sup> However, both cases actually illustrate the Federal Circuit’s migration *towards* traditional apportionment principles. The patent claim at issue in *Grain Processing Corp.* was for maltodextrins, a family of food additives made from starch, with “particular attributes.”<sup>118</sup> The defendant’s first process for producing maltodextrins resulted in a maltodextrin with the attributes claimed by the patent.<sup>119</sup> The defendant changed its process two times, but each new process also resulted in an infringing maltodextrin.<sup>120</sup> The fourth process adopted by the defendant, however, produced a non-infringing maltodextrin.<sup>121</sup>

¶<sup>36</sup> The evidence showed that it took the defendant only two weeks to develop the fourth process, and that its customers discerned no difference between the maltodextrin produced by that process and those produced by the three earlier processes.<sup>122</sup> *Grain Processing* and *American Maize-Products* were the only two significant suppliers of maltodextrin;<sup>123</sup> therefore, each sale by *American Maize-Products* was presumably a lost

---

114. See Reply Brief for Cross-Appellants Luciano Perego and Tapematrix, *Perego*, 65 F.3d 941 (Nos. 91-1125, 91-1132), 1991 WL 11010841 [hereinafter *Perego* Reply Brief]; Corrected Reply Brief for Appellant King Instrument Corp., *Perego*, 65 F.3d 941 (Nos. 91-1125, 91-1132) 1991 WL 11010840 [hereinafter *King Instrument* Reply Brief]; Corrected Brief for Cross-Appellants Luciano Perego and Tapematrix, *Perego*, 65 F.3d 941 (Nos. 91-1125, 91-1132), 1991 WL 11010839 [hereinafter *Perego* Brief]; Brief for Appellant King Instrument Corp., *Perego*, 65 F.3d 941 (Nos. 91-1125, 91-1132), 1991 WL 11010383 [hereinafter *King Instrument* Brief]; see also passage quoted *supra* note 112 and accompanying text.

115. See *supra* note 100 and accompanying text.

116. See *infra* Part II.C.3.

117. *Grain Processing Corp.*, 185 F.3d at 1349 (“To recover lost profits, the patent owner must show ‘causation in fact,’ establishing that ‘but for’ the infringement, he would have made additional profits. . . . Once the patent owner establishes a reasonable probability of ‘but for’ causation, ‘the burden then shifts to the accused infringer . . . .’”) (citing *Rite-Hite* and *Perego*); *Ferguson*, 350 F.3d at 1346 (“To recover lost profit damages for patent infringement, a patentee ‘must show that it would have received the additional profits ‘but for’ infringement.”) (citing *Perego*).

118. *Grain Processing Corp.*, 185 F.3d at 1343–44.

119. *Id.* at 1345.

120. *Id.* at 1345–46.

121. *Id.* at 1346.

122. *Id.*

123. *Id.* at 1349.

sale for Grain Processing.<sup>124</sup> The district court, however, refused to award lost profits on the sales of maltodextrin produced by the first three processes on the grounds that the fourth process was a non-infringing alternative available during the infringement period.<sup>125</sup> It refused to award these profits even though the fourth process was developed after the third process, and some seventeen years after the infringement began.<sup>126</sup> The court instead awarded the plaintiff a reasonable royalty based largely on the cost savings the defendant enjoyed from manufacturing the infringing maltodextrin in place of the non-infringing one.<sup>127</sup>

¶ 37 On appeal, the Federal Circuit rejected the plaintiff's argument that a non-infringing alternative must be available at the time of infringement in order to be considered in a lost profits analysis.<sup>128</sup> Instead, the court held that lost profits analysis should focus on the "but for" market,<sup>129</sup>—i.e., what the market would have looked like if the defendant had not infringed.<sup>129</sup> If a competitor could have entered the market with a non-infringing alternative, it could not be said that "but for" the infringement, the patentee would have made additional sales.<sup>130</sup> Accordingly, the court upheld the lower court's decision denying an award of lost profits.<sup>131</sup>

¶ 38 Even more important, in announcing its holding, the court cited to *Westinghouse Electric & Manufacturing Co. v. Wagner Electric & Manufacturing Co.* and to *Mowry*, two landmark apportionment cases,<sup>132</sup> and made the following observation:

Moreover, only by comparing the patented invention to its next-best available alternative(s)—regardless of whether the alternative(s) were actually produced and sold during the infringement—can the court discern the market value of the patent owner's exclusive right, and therefore his expected profit or reward, had the infringer's activities not prevented him from taking full economic advantage of this right.<sup>133</sup>

¶ 39 Needless to say, the Federal Circuit's observation is at least one formulation of the basic rule of apportionment.<sup>134</sup>

¶ 40 As Part III will illustrate, however, the Federal Circuit's attempt to apply the apportionment doctrine was only partially correct. In *Grain Processing Corp.*, the Federal Circuit concluded that there were no profits attributable to the patent because the

---

124. Cf. *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1578 (Fed. Cir. 1989) ("In the two-supplier market, it is reasonable to assume, provided the patent owner has the manufacturing and marketing capabilities, that it would have made the infringer's sales.")

125. *Grain Processing Corp.*, 185 F.3d at 1348.

126. *Id.* at 1345–47.

127. *Id.* at 1347.

128. *Id.* at 1349.

129. *Id.* at 1350.

130. *Id.* at 1350–51.

131. *Id.* at 1355.

132. See *supra* Part II.A.2.a (discussing *Mowry*) and *infra* Part III.B.3. (discussing *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*).

133. *Grain Processing Corp.*, 185 F.3d at 1351.

134. See *supra* Part II.A.1.

infringing and non-infringing versions of the product at issue were entirely interchangeable in the marketplace. In other words, the patent did not add value to the product in the market.<sup>135</sup> The court, however, improperly viewed the patent as being for an improvement to maltodextrins when the real value of the patent was its disclosure of a version of maltodextrin that was less expensive to make.<sup>136</sup> Therefore, under proper apportionment analysis, the court should have treated the infringement as an infringement by “use” and should have looked to the cost savings of manufacturing the patented product over the non-infringing alternative to determine the benefit attributable to the patent.<sup>137</sup>

¶41 Nonetheless, *Grain Processing* is significant because the Federal Circuit recognized, at least as a general matter, the core principle underlying the apportionment doctrine: the patentee is only entitled to benefits derived from the patent.<sup>138</sup> What makes the court’s analysis even more interesting is that neither party addressed apportionment in its brief.<sup>139</sup> Rather, the Federal Circuit, in its attempt to flesh out the contours of its “but for” test, reached the same principle that the Supreme Court reached in its apportionment cases.<sup>140</sup>

¶42 The Federal Circuit took another significant step toward apportionment in *Ferguson Beauregard/Logic Controls, Inc. v. Mega Systems, LLC*, albeit again under the guise of “but for” causation.<sup>141</sup> In *Ferguson*, the patents at issue related to the systems and methods for producing petroleum from a well.<sup>142</sup> One of the patentee’s devices, called the “AutoCycle,” incorporated two patents, No. ’376 and No. ’991.<sup>143</sup> A second device manufactured by the patentee, called the “LiquiLift,” embodied only the ’376 patent.<sup>144</sup> One version of the defendant’s device was found to infringe only the ’376 patent,<sup>145</sup> but the plaintiff was awarded lost profits for sales of that version based on lost

135. *Grain Processing Corp.*, 185 F.3d at 1349–51.

136. *Id.* at 1347 (noting the district court’s finding that it cost American Maize-Products 2.3% more to make the non-infringing maltodextrin).

137. *See infra* Part III.B.2.a.ii (discussing *Sessions v. Romadka*, 145 U.S. 29 (1892)). As a practical matter, had the court actually applied apportionment, the result would have been no different. The reasonable royalty awarded, 3%, exceeded the cost savings attributable to the patent, approximately 2.3%, and, therefore, *Grain Processing* would have still been entitled to a 3% percent royalty even if its lost profits had been available on an apportioned basis. *See Grain Processing Corp.*, 185 F.3d at 1347; 35 U.S.C. § 284 (2000) (providing that a patentee is entitled to damages for infringement “in no event less than a reasonable royalty”). That result, however, is anomalous—typically, a reasonable royalty is based on only a *portion* of the profit attributable to the patent. *See, e.g.*, *Standard Mfg. Co. v. United States*, 42 Fed. Cl. 748, 765–66 (1999) (discussing the “licensing rule of thumb”).

138. *See supra* Part II.A.1.

139. Corrected Reply Brief for Plaintiff-Appellant *Grain Processing Corp.*, *Grain Processing Corp.*, 185 F.3d 1341 (No. 98-1081), 1998 WL 24082314; Principal Brief for Appellee American Maize-Products Co., *Grain Processing Corp.*, 185 F.3d 1341 (No. 98-1081), 1998 WL 34082552; Brief for Plaintiff-Appellant *Grain Processing Corp.*, *Grain Processing Corp.*, 185 F.3d 1341 (No. 98-1081), 1998 WL 34084151.

140. *See supra* Part II.A.1.

141. *Ferguson*, 350 F.3d at 1345–46.

142. *Id.* at 1331.

143. *Id.* at 1345.

144. *Id.* at 1346.

145. *Id.* at 1336.

sales of the AutoCycle device, which embodied *both* patents.<sup>146</sup>

¶43 On appeal, the defendant argued that the lost profit award should have been based on lost sales of the LiquiLift device, which embodied the only the '376 patent.<sup>147</sup> The Federal Circuit agreed, observing:

In this case, the district court based its lost profits award on evidence of sales of a device embodying features in addition to those present in the infringed '376 patent, namely, those features attributable to the '991 patent. The district court therefore failed to distinguish the allocation of profits that would have been made “but for” the infringement of the '376 patent with the profits that could fairly be allocated to customer demand related to the features embodying the '991 patent.<sup>148</sup>

¶44 Accordingly, the court vacated the damages award.<sup>149</sup> The court’s underlying rationale, of course, was a clear and correct application of apportionment.<sup>150</sup> Thus, after inching towards apportionment in *Grain Processing*, the Federal Circuit adopted one of its core principals in *Ferguson*—that a patentee should not be able to use one patent to secure profits properly attributable to another patent—although it continued to use the awkward “but for” language in its opinion and did not cite any apportionment cases.<sup>151</sup>

#### D. The Statutory Underpinning for Contemporary Apportionment

¶45 Notwithstanding *Grain Processing Corp.* and *Ferguson*, it is unclear whether the Federal Circuit has come to one mind on apportionment, despite the Supreme Court precedent on the issue.<sup>152</sup> Ultimately, though, any argument that apportionment has

---

146. *Id.* at 1345.

147. *Id.* at 1345–46.

148. *Id.* at 1346.

149. *Id.*

150. *See supra* Part II.A.2.a.

151. *Ferguson*, 350 F.3d at 1346.

152. *See, e.g.*, *Crystal Semiconductor Corp. v. Tritech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1357 (Fed. Cir. 2001) (“Lost profit damages do not depend on the number of patents infringed by one single product in the present case. The lost profit calculation depends only on market variables.”). The Federal Circuit’s decision in *Juicy Whip, Inc. v. Orange Bang, Inc.*, 382 F.3d 1367 (Fed. Cir. 2004), in particular, will contribute to this uncertainty. In *Juicy Whip*, the patentee appealed the lower court’s decision denying it lost profits on lost sales of syrup as damages for the infringement of its patent on a beverage dispenser that mixed the syrup with water. *See* 382 F.3d at 1370. Properly viewed, the issue on appeal did not raise the difficult questions associated with apportionment, but rather, the relatively simple question of whether lost profits are available for lost sales of unpatented consumables, which they are not. *See, e.g.*, *Velo-Bind, Inc. v. Minn. Mining & Mfg. Co.*, 647 F.2d 965, 972 (9th Cir. 1981) (denying recovery for lost profits on lost sales of paper and plastic strips and holding that “damages for lost profits on sales of unpatented, consumable supplies are not contemplated by the patent law”); *Autographic Register Co. v. Sturgis Register Co.*, 110 F.2d 883, 887 (6th Cir. 1940) (denying claim for lost profits on lost sales of paper strips resulting from infringement of a patent for an autographic cash register); *Kaufman v. Lantech, Inc.*, 926 F.2d 1136, 1144 (Fed. Cir. 1991) (denying claim for lost profits on lost sales of plastic wrap resulting from infringement of a patent for a stretch wrapping machine).

The Federal Circuit, however, held that under the entire market value rule, the patentee could recover lost profits on lost sales of the syrup because the syrup and the dispenser had a “functional relationship”:

given way to a simple “but for” test must fail regardless. To conclude that a patentee can establish a right to lost profits merely by showing that “but for” the infringement it would have made additional sales of its product, is to ignore fundamental principles of patent law. The rights granted by a patent are a creation of statute, and, thus, those rights extend only so far as the statute provides.<sup>153</sup> The patent statute grants patentees the exclusive right to practice their invention;<sup>154</sup> it does not grant and never has granted patentees the right to sell their product.<sup>155</sup> Accordingly, the compensable injury under the patent damages statute is not the lost sale of a product, but unlawful manufacture, use, and sale of the invention.<sup>156</sup> This principle is the foundation of the apportionment doctrine. However, by reducing a claim for lost profits to a simple “but for” test, thereby allowing a patentee to recover its entire lost profit on a lost sale regardless of the contribution of the patent to those profits, courts permit the patent laws to effectively compensate a patentee for the lost sales of its product as opposed to its invention, and hence unlawfully

---

The dispenser needs syrup and the syrup is mixed in a dispenser. Such is indeed a functional relationship, and a functional relationship between a patented device and an unpatented material used with it not precluded by the fact that the device can be used with other materials or that the unpatented materials can be used with other devices.

*Juicy Whip*, 382 F.3d at 1372. Unfortunately, the Federal Circuit did not explain why, for the purposes of the entire market value rule, the unpatented syrup had more of a functional relationship to the patented syrup dispenser than existed, for example, between the unpatented motion pictures and the patented motion picture projector in *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 516 (1917) (denying lost profits on lost sales of the motion pictures and holding that a patentee may not “extend the scope of its patent monopoly by restricting the use of it to materials necessary in its operations”); the unpatented plastic strap for a patented welding tool and the welding tool in *Signode Corp. v. Weld-Loc Sys., Inc.*, 700 F.2d 1108, 1114 (denying recovery for lost profits on lost sales of the plastic straps on the grounds that “the plastic strapping marketed by Signode has market value apart from the friction welding tool, and vice versa. This is simply not a case of patented and unpatented components constituting one functional unit”); the unpatented paper and plastic strips and the patented binding machine in *Velo-Bind*, 647 F.2d at 972, or between the unpatented paper strips and the patented autographic register in *Autographic Register Co.*, 110 F.2d at 884–85. Nor did the Federal Circuit attempt to reconcile its holding in *Juicy Whip* with its holding in *Ferguson*, even though taking the two cases together produces a bizarre result: had the patentee’s dispenser contained a patented component not present in the infringing machines, the patentee would not have been able to recover lost profits attributable to that portion of its machine even though it could recover lost profits for the unpatented syrup.

153. 35 U.S.C. § 271.

154. 35 U.S.C. § 271(a) (“Whoever without authorization makes, uses, offers to sell, or sells any patented *invention*, within the United States . . . infringes the patent.” (emphasis added)); *Am. Sec. Co. v. Shatterproof Glass Corp.*, 268 F.2d 769, 777 (3d Cir. 1959) (“Each patent gives its owner a monopoly in respect to its disclosures, so much and no more. It is a grant of the exclusive right to manufacture, use and sell the invention which is disclosed. That invention is what the patent grant protects by the monopoly, not that invention plus some embellishment, improvement, or alternate product or process, which also happens to be patented.”); *Saulnier v. United States*, 314 F.2d 950, 951 (Ct. Cl. 1963) (“A patentee, of course, is only entitled to recover for the value of his invention, not for the non-infringing improvements therein.”).

155. *Motion Picture Patents Co.*, 243 U.S. at 510–11 (“The scope of every patent is limited to the invention described in the claims contained in it, read in the light of the specification. . . . [T]he patentee receives nothing from the law which he did not have before . . . . The patent law simply protects him in the monopoly of that which he has invented and has described in the claims of his patent.”); *Kendall v. Winsor*, 62 U.S. 322, 327–28 (1858) (holding that a patent “was never designed for [an inventor’s] exclusive profit or advantage”).

156. 35 U.S.C. § 284 (“Upon finding for the claimant, the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the *invention* by the infringer . . . .” (emphasis added)).

protect (or create) a “right” to sell a product. Thus, apportionment of lost profits is necessarily a fundamental part of contemporary patent damages law.

### III. THE HISTORY OF APPORTIONMENT

¶46 As apportionment issues become more common in patent cases, questions about specific applications of the apportionment rules will necessarily arise. Fortunately, there are many reported cases that can address those questions. Unfortunately, though, these cases are very old and were decided based upon a body of patent law that differs significantly from the law today. In particular, the separation of law and equity, the evolution of the patent damages statutes, the availability of infringers’ profits as a form of recovery, and the paucity of lost profits and reasonable royalty cases in the 1800s—all factors that influenced the development of the apportionment doctrine—are foreign to contemporary patent damages cases. In the absence of contemporary apportionment case law, however, these foundational cases necessarily guide any modern apportionment analysis. To better understand how these foundational cases can (and in some instances cannot) guide a modern apportionment analysis, it is necessary first to look at the evolution of the statutory backdrop against which these cases were decided and then, as nearly as possible within the framework set forth in Part II.B, take a close look at the cases.

#### A. The Patent Damages Statutes

##### 1. The Early Patent Acts

¶47 Congress passed the first patent act in 1790,<sup>157</sup> which provided that an infringer would be liable to “forfeit and pay to the patentee such damages as should be assessed by a jury” and, interestingly, “to forfeit to the person aggrieved the infringing machine.”<sup>158</sup> That provision was replaced in 1793: “[T]he infringer should forfeit and pay to the patentee a sum equal to three times the price for which the patentee has usually sold or licensed to other persons the use of said invention.”<sup>159</sup> However, the 1793 statute subsumed the principle that a license given by the patentee for the infringement was always a fair measure of the patent’s value,<sup>160</sup> and it did not provide for the situation where the patent had its primary value in exclusive exploitation by the patentee—i.e., where the patentee did not license the patent, but instead simply used the patented technology in its own products.<sup>161</sup> Accordingly, the law was changed again in 1800 to provide that the infringer would “forfeit and pay to the patentee a sum equal to three times the actual damage sustained by such patentee.”<sup>162</sup> But, as there was “no good

---

157. Patent Act of 1790, Ch. 7, 1 Stat. 109-112 (April 10, 1790).

158. *Seymour*, 57 U.S. at 488 (quoting the first patent act of 1790).

159. *Id.* (quoting the patent act of 1793). Established royalties, i.e., royalties charged on licenses of the patent to other parties, were considered the “primary and true criterion of damages in the action at law.” *Burdell v. Denig*, 92 U.S. 716, 720 (1875). However, if the established royalty exceeded actual damages, it would be reduced. See *Birdsall v. Coolidge*, 93 U.S. 64, 70 (1876).

160. *Seymour*, 57 U.S. at 488.

161. *Id.*

162. *Id.*

reason why taking a man's property in the invention should be trebly punished, while the measure of damages as to other property is single and actual damages," the patent statute was changed in 1836 to provide that a jury could assess only *actual* damages,<sup>163</sup> and left to the court's discretion the possibility of increasing damages up to three times the actual amount.<sup>164</sup>

## 2. The Development of Infringer's Profits as a Form of Recovery

¶48 In many respects, the recovery of patent damages under the 1836 Act was not that different from the recovery of patent damages today.<sup>165</sup> However, by 1853, another important branch of patent damages law was developing in courts of equity.<sup>166</sup> The early patent acts did not grant federal courts equity jurisdiction over patents.<sup>167</sup> As a result, the only time a patentee could get an injunction from a federal court against continued infringement was when the case was brought on diversity jurisdiction.<sup>168</sup> In 1819, federal courts were given original jurisdiction in equity and at law over cases arising under the patent laws as well as the power to issue an injunction to prevent patent infringement.<sup>169</sup> But courts could not award damages in equity proceedings, nor could they issue an injunction in proceedings at law.<sup>170</sup> Thus, a patentee had to elect between foregoing an injunction and seeking damages, or foregoing damages and seeking an injunction.<sup>171</sup>

¶49 Courts at the time, reluctant to send a plaintiff who brought a successful bill in equity back to court to pursue damages at law,<sup>172</sup> attempted to mitigate this problem by analogizing infringers to trustees who wrongfully used trust property to their advantage, and by awarding to the plaintiff the infringer's wrongful gains from such use.<sup>173</sup> However, if the defendant had no profit from the use or sale of the invention, there would have been nothing for the Court to award the plaintiff because it could not award damages for the patentee's losses.<sup>174</sup> On the other hand, the patentee was not *literally* a

163. *Id.* at 488–89.

164. *Id.* at 489.

165. The notable exception, of course, is that reasonable royalties are now a floor for damages. 35 U.S.C. § 284.

166. *See, e.g., Livingston*, 56 U.S. at 559–60.

167. *See Root v. Ry. Co.*, 105 U.S. 189, 191 (1881).

168. *See id.* at 190–93.

169. *See id.* at 192.

170. *Id.* at 206–07.

171. *See Birdsall v. Coolidge*, 93 U.S. 64, 68–69 (1876); *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1440 (Fed. Cir. 1998).

172. *See Root*, 105 U.S. at 207.

173. *See Tilghman v. Proctor*, 125 U.S. 136, 148 (1888) (“[A] court of equity, which has acquired, upon some equitable ground, jurisdiction of a suit for the infringement of a patent, will not send the plaintiff to a court of law to recover damages, but will itself administer full relief, by awarding, as an equivalent or a substitute for legal damages, a compensation computed and measured by the same rule that courts of equity apply to the case of a trustee who has wrongfully used the trust property for his own advantage.”); *Burdell v. Denig*, 92 U.S. 716, 720 (1875); *Packet Co. v. Sickles*, 86 U.S. 611, 617–18 (1873); *see also Stevens v. Gladding*, 58 U.S. 447, 455 (1854) (“The right to an account of profits is incident to the right to an injunction in copy and patent-right cases.”).

174. *See Elizabeth v. Pavement Co.*, 97 U.S. 126, 139 (1877) (“[T]hough the defendant's general business be ever so profitable, if the use of the invention has not contributed to the profits, none can be recovered.”).



trustee for the wrongful gains,<sup>175</sup> and therefore a patentee could not bring a bill in equity to recover profits alone.<sup>176</sup> Thus, if the infringer was no longer infringing such that there would be a basis for an injunction, the patentee could not bring a suit in equity even though the infringer had made profits from earlier acts of infringement.<sup>177</sup> In that circumstance, if the patentee did not sell a patented product or license its patent such that it had a claim for damages, it would have virtually no recourse because the infringer's profits were not available at law.<sup>178</sup>

### 3. The 1870 Act

¶ 50 The most significant change in the patent statute came in 1870. That year, Congress changed the statute to provide that in a suit in equity, a patentee could recover “in addition to the profits to be accounted for by the defendant, the damages the complainant . . . sustained” from the infringement.<sup>179</sup> The Supreme Court construed the statute a few years later to mean that in a suit in equity, a patentee could only recover actual damages where the injury from the infringement was “plainly” greater than the profits made by the infringer.<sup>180</sup> This gave patentees an incentive to invoke equity jurisdiction if they could, because both profits and damages were available at equity, whereas only damages were available in an action at law.<sup>181</sup> To maintain a bill in equity, however, the patentee still had to state a claim for injunctive relief—i.e., demonstrate the existence of continuing infringement<sup>182</sup>—and seek an accounting of the infringer's gains or profits.<sup>183</sup> If the defendant was no longer infringing the patent, the patentee's only recourse was an action

175. See *Tilghman*, 125 U.S. at 148.

176. See *Root*, 105 U.S. at 214, 215–16 (holding that there was no fiduciary relationship between patentees and infringers such that a naked bill in equity for an accounting of an infringer's profits (i.e., a bill that did not seek an injunction) could be sustained).

177. See *id.*

178. See *Tilghman*, 125 U.S. at 144–45; *Burdell*, 92 U.S. at 720.

179. *Root*, 105 U.S. at 200. The 1870 Act did not change the measure of damages at law. See *Birdsall v. Coolidge*, 93 U.S. 64, 69 (1876).

180. *Birdsall*, 93 U.S. at 69; see also *Coupe v. Royer*, 155 U.S. 565, 582 (1895) (“[S]ince the act of July 8, 1870, in case where the injury sustained by the infringement is plainly greater than the aggregate of what was made by the defendant, the complainant is entitled to recover the damages he has sustained, in addition to the profits received.”). If profits were greater than damages, there was no need to consider damages. See *Wooster v. Taylor*, 30 F. Cas. 619, 620 (C.C.S.D.N.Y. 1878) (“[A]s the profits exceed the damages, in any mode of reckoning the license fees, it is not necessary to consider the question made in that respect.”).

181. See *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1441 (Fed. Cir. 1998); 7 CHISUM, *supra* note 62, §20.02[1][e] (noting that the availability of *both* profits and damages in equity “gave patentees an incentive to invoke equity jurisdiction even where the interest in obtaining injunctive relief was either not primary or totally absent”).

182. See *Root*, 105 U.S. at 214–16.

183. See *id.* at 202 (holding that the right to damages in a suit at equity was “incident to the right to an account” for profits); *Birdsall*, 93 U.S. at 69 (“Gains and profits are still the proper measure of damages in equity suits, except in cases where the injury sustained by the infringement is plainly greater than the aggregate of what was made by the respondent; in which event the provision is that the complainant ‘shall be entitled to recover, in addition to the profits to be accounted for by the respondent, the damages he has sustained thereby.’”). However, it was not necessary that the defendant actually have made any profits. See *Marsh v. Seymour*, 97 U.S. 348, 360 (1877) (“Damages of a compensatory character may be allowed to a complainant in an equity suit, where it appears that the business of the infringer was so improvidently conducted that it did not yield any substantial profits. . . .”).

at law.<sup>184</sup>

#### 4. The 1922 and 1946 Acts

¶ 51 In 1922 the statute changed yet again. The 1922 Act retained the provision of the 1870 Act providing that a patentee could recover the damages it sustained from infringement in addition to the profits made by the infringer. The 1922 Act also amended the 1870 statute to address the problem of the patentee who could show that it suffered damage or that the infringer had made a profit, but was not able to quantify adequately the amount of damage or profit.<sup>185</sup> To assist such patentees, the statute permitted the award of “a reasonable sum as profits or general damages for the infringement” and allowed “opinion or expert testimony” to be received on the issue of the quantum of profits or damages.<sup>186</sup> The term “a reasonable sum as profits or general damages for the infringement” was construed to provide for the availability of a reasonable royalty as a form of relief.<sup>187</sup> These changes, however, were only made to the provision for equitable remedies; the provision for legal remedies remained unchanged.<sup>188</sup>

¶ 52 The last significant statutory change in patent damages was in the 1946 Act.<sup>189</sup> When enacting the 1946 Act, Congress construed the law in existence before the 1946 Act (the 1922 Act) as requiring a patentee to show that the infringer’s profits could not be ascertained, which required an accounting for profits, even where the patentee merely sought a reasonable royalty.<sup>190</sup> The effect of this requirement, as Congress understood it,

---

184. See *Root*, 105 U.S. at 214–16. At the time, however, an action at law could be uninviting because both lost profits and established royalties could prove difficult to establish. See, e.g., *Dowagiac Mfg.*, 235 U.S. at 648 (lost profits) (“While the number of drills sold by the defendants was shown, there was no proof that the plaintiff thereby lost the sale of a like number of drills or of any definite or even approximate number.”); *Rude v. Wescott*, 130 U.S. 152, 165 (1889) (established royalties) (“In order that a royalty may be accepted as a measure of damages against an infringer, who is a stranger to the license establishing it, it must be paid or secured before the infringement complained of; it must be paid by such a number of persons as to indicate a general acquiescence in its reasonableness by those who have occasion to use the invention; and it must be uniform at the places where the licenses are issued.”). Moreover, reasonable royalties were still in their infancy as a form of recovery. See *Dowagiac Mfg.*, 235 U.S. at 649 (noting that some courts had interpreted *Coupe v. Royer*, 155 U.S. 565 (1895), as holding that reasonable royalties were not a proper form of recovery). In 1897 courts of law were given the power to grant injunctions in patent cases and to award both the infringer’s profits and the patentee’s damages. See *Nike*, 138 F.3d at 1442. It does not appear, however, that this statute had any significant impact on the development of apportionment rules.

185. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 243 F. Supp. 500, 518 (S.D.N.Y. 1965).

186. *Id.*

187. *Id.* at 519. Evidence of a reasonable royalty had been admissible since at least 1865 to establish damages, see *Suffolk Co. v. Hayden*, 70 U.S. 315, 320 (1865), but it was not until 1913 that the Court clearly recognized their availability as a form of recovery. See *Dowagiac Mfg.*, 235 U.S. at 648.

188. See 7 CHISUM, *supra* note 62, §20.02[2][d]. There appears to be no case addressing what effect, if any, the adoption of Federal Rule of Civil Procedure 18(a)—which allowed plaintiffs to bring legal and equitable claims in a single action—had on actions for patent damages.

189. The later codification of the patent damages statute in Title 35 of the United States Code did not substantively change the statute. See *Nike*, 138 F.3d at 1442.

190. See *Georgia-Pacific Corp.*, 243 F. Supp. at 522. Interestingly, Congress appeared to believe that an accounting was required in all cases of patent infringement, even though it clearly would not be required in a case brought at law. See *Dairy Queen, Inc. v. Wood*, 369 U.S. 469, 478 (1962) (“The necessary prerequisite to the right to maintain a suit for an equitable accounting, like all other equitable remedies, is

was to mandate that a patentee to go through the expensive and time consuming process of an accounting, even where it was not seeking to recover the infringer's profits.<sup>191</sup>

¶53 At the very least, the 1946 Act eliminated the requirement that there be an accounting for profits in all cases.<sup>192</sup> Whether Congress intended to accomplish anything else through the 1946 Act, however, was the subject of much debate. The 1946 Act, in authorizing recovery in cases of infringement, provided only for “general damages which shall be due compensation for making, using, or selling the invention, not less than a reasonable royalty therefore;” it did not mention the recovery of the infringer's profits.<sup>193</sup> The House Report on the bill that became the 1946 Act, however, stated that “the bill would not preclude the recovery of profits as an element of general damages.”<sup>194</sup> As a result, courts interpreted the statute to provide that, while an accounting for profit was no longer required, evidence of the infringer's profit could be used as a measure of damages.<sup>195</sup> This view was consistent with early Supreme Court decisions and the decisions of other courts holding that an infringer's profits were a measure of the patentee's damages.<sup>196</sup>

---

. . . the absence of an adequate remedy at law.”); *see also* *Root*, 105 U.S. at 207 (“[E]quity . . . cannot give relief when there is a plain and adequate and complete remedy at law.”); *Burdell v. Denig*, 92 U.S. 716, 720 (1875) (noting that determining the infringer's profits was “very difficult . . . in a trial before a jury, but quite appropriate on a reference to a master, who can examine defendant's books and papers, and examine him on oath, as well as all his clerks and employes [sic]”). If that is what Congress believed, it was likely due to the fact that the vast majority of patent infringement cases were brought in equity. *See* *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1567 (Fed. Cir. 1995) (en banc) (Nies, J., dissenting) (noting that after the 1870 Amendment, jury trials “virtually disappeared” in patent cases), *rev'd*, 520 U.S. 17 (1997).

191. *See Georgia-Pacific Corp.*, 243 F. Supp. at 522 n.19.

192. *See Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 654 (Fed. Cir. 1985) (“The legislative history of the 1946 amendments clearly indicates that one of its purposes was to eliminate the necessity of the traditional accounting to determine the infringer's profits in all damages determinations, and to deter the use of such proceedings by successful patentees to harass the infringer.”); *Georgia-Pacific Corp.*, 243 F. Supp. at 522.

193. *Georgia-Pacific Corp.*, 243 F. Supp. at 521.

194. *Id.* at 526 (quoting the House Report).

195. *See Graham v. Jeoffroy Mfg.*, 253 F.2d 72, 74 (5th Cir. 1958) (“[T]he profits made by the infringer from his improper use of the infringing device may be the measure of the damages suffered, even though the [1952] statute does not prescribe that profits are to be recovered as such.”); Note, *The Enforcement of Rights Against Patent Infringers*, 72 HARV. L. REV. 328, 345 n.126 (1958).

196. *See, e.g., Littlefield v. Perry*, 88 U.S. 205, 230 (1874) (“Profits actually realized are usually, in a case like this, the measure of unliquidated damages.”); *Mowry*, 81 U.S. at 653 (“The profits which are recoverable against an infringer of a patent are in fact a compensation for the injury the patentee has sustained from the invasion of his right. They are the measure of his damages. Though called profits, they are really damages . . . .”); *Dean v. Mason*, 61 U.S. 198, 203 (1857) (“The rule in such a case is, the amount of profits received by the unlawful use of the machines, as this, in general, is the damage done to the owner of the patent.”); *Horvath v. McCord Radiator & Mfg. Co.*, 100 F.2d 326, 330 (6th Cir. 1938) (“The fruits of the advantage to McCord . . . of using Horvath's machine . . . are its profits and may be allowed Horvath as damages.”); *Ingels v. Mast*, 13 F. Cas. 43, 44 (C.C.S.D. Ohio 1875) (“[T]he complainant is entitled to damages for all the profits which the defendant has made by the use of the improv[ement] described in the patent.”); *see also Nike*, 138 F.3d at 1442 (“Calling the infringer's profits ‘an element of general damages’ was not unusual, for it reflected common usage as well as the history wherein both the patentee's losses and the infringer's gain were measures of recovery for infringement for utility as well as design patents.”).

¶ 54 In 1964, however, the Supreme Court in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*<sup>197</sup> construed the statute as eliminating infringer's profits as a form of recovery. In its analysis, the Court focused on courts' use of the term "damages" to refer to the patentee's losses and "profits" to refer to the infringer's gains.<sup>198</sup> The Supreme Court then concluded that, because the statute did not specifically provide for the availability of an infringer's profits as a form of recovery, an infringer's profits must no longer be available.<sup>199</sup> While the issue of damages was not properly before the Court<sup>200</sup> and only four justices signed that part of the opinion,<sup>201</sup> lower courts have nonetheless adhered to that interpretation of the 1946 Act.<sup>202</sup> Thus, an infringer's profits, as a practical matter, are no longer available under the 1946 Act as a form of recovery.

¶ 55 Some advocates have attempted to push the 1946 Act even further by arguing that it eliminated apportionment altogether.<sup>203</sup> It is true that the legislative history of the 1946 Act reflects concerns about the difficulties imposed by apportionment,<sup>204</sup> and that the legislative history of the Act was hardly a model of clarity.<sup>205</sup> However, whether the 1946 Act was merely intended to eliminate the requirement of an accounting, to eliminate the recovery of infringers' profits in equity, or to eliminate the recovery of infringers' profits altogether, the legislative history relied upon by the courts gives no indication that Congress intended the Act to make any substantive change to the recovery of damages *at law*.<sup>206</sup> Since apportionment was required in cases brought at law,<sup>207</sup> the 1946 Act could not have been directed at apportionment itself. Moreover, had Congress intended to eliminate apportionment, it would have done so expressly, as it did with design patents.<sup>208</sup> Thus, it is simply incorrect to conclude that the 1946 Act's arguable

---

197. 377 U.S. 476, 506–507 (1964).

198. *Id.* at 504–05.

199. *Id.* at 507.

200. *Id.* at 502 (“It is true that the lower courts have not yet expressly addressed themselves to the damages issue, and that the parties have not argued it here.”).

201. *Id.* at 502 n.18.

202. *See, e.g., Nike*, 138 F.3d at 1442. Interestingly, the infringer's profits can be used under the right circumstances as a measure of the patentee's losses. *See, e.g., Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 655 (Fed. Cir. 1985) (“However, evidence of an infringer's profits may be relevant to the amount of the patentee's damages in certain circumstances.”) Thus, notwithstanding *Aro*, in some circumstances the 1946 amendment's only effect is to eliminate the need for an accounting.

203. *See, e.g., Rite-Hite Brief, supra* note 99, at 18 (“The 1946 Act, furthermore, was intended to eliminate apportionment by abolishing recovery of an infringer's profits. Apportionment simply is no longer a viable doctrine.”).

204. *See Georgia-Pacific Corp.*, 243 F. Supp. at 522 n.22 (reproducing letter submitted into the Congressional Record by Congressman Henry, sponsor of the 1946 Act, which stated in part: “[A]bsolutely artificial and unsound rules have been invented to solve the impossible problem of how to apportion profits. The Supreme Court in the Westinghouse-Wagner case . . . made confusion worse confounded.” (citation omitted)).

205. *See, e.g., id.* at 522–26 nn. 22, 23, 27, 28.

206. *See, e.g., id.* Notably, when Congress expressly eliminated the apportionment requirement for infringement of design patents, it only eliminated it where the infringer's profits were sought. *Nike*, 138 F.3d at 1441 (“The Act of 1887, specific to design patents, removed the apportionment requirement when recovery of the infringer's profits was sought . . .”).

207. *See Philip v. Nock*, 84 U.S. 460, 462 (1873); *Seymour*, 57 U.S. at 490.

208. *Nike*, 138 F.3d at 1441.

elimination of infringers' profits as a form of recovery necessarily meant the elimination of apportionment.

## B. The Apportionment Cases

¶ 56 The finer points of apportionment were hammered out through the many cases addressing apportionment during the latter half of the nineteenth century. For the reasons discussed in Parts III.A.2 and 3 *supra*, the cases in that era almost always addressed claims for infringers' profits, which, as a practical matter, are no longer available as such.<sup>209</sup> The rules for apportionment, however, were the same whether the patentee sought an infringer's profits or its own lost profits.<sup>210</sup> Thus, given the paucity of modern apportionment cases, a look back at how apportionment was handled in the late nineteenth century will provide the best guide to how apportionment should be handled in modern cases. The key cases and many other illustrative cases are organized here around

---

209. In this respect, those who argue that apportionment has no role in lost profit cases may fairly argue that these cases do not apply to lost profits claims because an infringer's profits do not necessarily stand on the same footing as lost profits. That is, where an infringer's profits were sought, an infringer could, but for apportionment, be called upon to answer for his entire profits to each of two or more patentees if it were infringing more than one patent. On the other hand, an infringer only takes a sale away from one competing patentee in a given transaction and therefore, under a lost profits analysis, the infringer will not be called on to compensate for lost profits twice for the same sale.

However, lost profits nonetheless raise the same concerns the Court sought to address through apportionment. By way of illustration, consider the following hypothetical:

The product at issue is a device that performs three different diagnostic tests (Tests A, B and C);

Given the nature of the relevant market, the product is only sellable if it performs *each* of the three tests;

Each test is patented separately (Patents A, B and C);

Each of three patentees (Patentees A, B and C) owns one of the three patents;

A sells the device, but it uses patented alternative technologies for Tests B and C (patents B\* and C\*) that are inferior, but acceptable; there is no known alternative for Test A;

B and C do not sell a product;

The infringer ("D") sells one device, which infringes patents A, B, and C, to a customer who only bought it from D because of the superior tests for B and C, but who would not have purchased it if it did not have test A;

In a suit by A, A proves that had D not made the sale, A would have.

In the litigation against D, A would likely argue that it is entitled to its entire lost profit on the sale by D because "but for" the infringement of patent A, D would not have made the sale. Under a simple "but for" test, the infringement of patent A would entitle the holder of the patent to recover its entire lost profit. That is, under the hypothetical, it is factually true that "but for" the infringement of patent A, the infringer would not have been able to enter the market and A would have made the sale.

However, awarding A its entire lost profit would amount to allowing A to use its patent on test A to protect the profits that would be fairly attributable to Patents B\* and C\*. That would be an unlawful expansion of the Patentee's exclusive rights. Moreover, if D were ultimately required to pay royalties to Patentees B and C as well as lost profits to A, it would be paying an amount greater than the gains attributable to the three patents—i.e., profits attributable to Patents A, B\* and C\* plus royalties on Patents B and C. In other words, forcing D to pay lost profits and royalties would give rise to the "multiple patent" problem. Even if the hypothetical is changed to provide that D owns Patents B\* and C\*, which would resolve the "multiple patent" problem, awarding A its entire lost profit would still be an unlawful expansion of the Patentee's rights. Accordingly, at least on principle, apportionment is relevant in modern lost profits case for the same reasons it was relevant in older infringer's profits case.

210. See *supra* Part II.C.1.

the apportionment rules set forth in Part II.B *supra*.

## 1. Infringement by Manufacture or Sale

### a. Entire Device Patent

¶ 57 A leading early Supreme Court case addressing apportionment where the infringer unlawfully manufactured and sold a device patented in its entirety was *Elizabeth v. Pavement Co.*<sup>211</sup> The patent in *Elizabeth* was for a “new and improved wooden pavement,” specifically, a combination of a foundation, parallel sided blocks, strips between the blocks to create a uniform distance, and the filling of the space created by the strips.<sup>212</sup> The city of Elizabeth, New Jersey, hired a contractor to lay down wooden pavement that the trial court found to infringe the patent.<sup>213</sup> The trial court awarded the patentee the entire profit on the pavement.<sup>214</sup>

¶ 58 On appeal, the defendant argued, *inter alia*, that the court had erred in awarding the entire profit on the pavement because the patented pavement only represented a small improvement over other pavements available to the public; therefore, the patentee was entitled to only a small portion of the profits.<sup>215</sup> The Court rejected this argument on the ground that the patented pavement was

a complete combination in itself, differing from every other pavement. The parts were so correlated to each other, from bottom to top, that it required them all, put together as he put them, to make the complete whole, and to produce the desired result. . . . Thus combined and arranged, *they made a new thing, like a new chemical compound.*<sup>216</sup>

¶ 59 Significantly, the Court noted that the profit derived from the pavement was not for the construction of an old type of pavement with an additional profit for its improvement.<sup>217</sup> Thus, the Court drew a distinction between a patent for a device that had a different structure than a competing device, where the patentee might be entitled to the entire profit, and a patent for a device that had the same structure as a competing device but with an added improvement, where the patentee would generally not be entitled to the entire profit.<sup>218</sup>

¶ 60 The patentee of an entire device, however, was not necessarily entitled to the entire

---

211. 97 U.S. 126 (1877).

212. *Id.* at 127–29.

213. *Elizabeth*, 97 U.S. at 128–29, 137–38.

214. *Id.* at 139–40.

215. *Id.* at 139–41.

216. *Id.* at 141 (emphasis added); *see also* Warren v. Keep, 155 U.S. 265, 268 (1894). The patent in *Warren* was for a grate for an ordinary stove. *Id.* at 266. The grates were an improvement to the stove, but the patentee did not seek profits on the stove; rather, he sought profits on the grate, which was sold as an “independent marketable article.” *Id.* at 266–67. Because “every feature” of the grate was patented, the patentee was entitled to the infringer’s entire profit on its infringing sales. *Id.* at 270.

217. *Elizabeth*, 97 U.S. at 141–42.

218. In the latter situation, the patentee may have been entitled to the entire profit if it could have shown that the added improvement created the entire market value of the device. *See infra* Part III.B.1.c.

profit on the sale of the device. An infringer's device, though infringing, may have included improvements not claimed by the patent that contributed to the value of the infringing product. The presence of such an independent improvement necessitated a more complicated form of analysis. The central question, as a result, became whether the improvement added any value to the device. The burden of showing that the improvement added value would lie with the infringer.<sup>219</sup>

### i. Infringer's "Improvement" Added No Value

¶ 61 If the defendant fails to meet its burden of showing that its improvement added value to the infringing device, the patentee is entitled to the infringer's entire profit from infringing sales.<sup>220</sup> Such was the fate of the defendant in *Morss v. Union Form Co.*<sup>221</sup> The patent in *Morss* was for an adjustable dress form.<sup>222</sup> One of the defendant's forms, a skirt-form, included the features of the patented form, but added a simple device for operating the expansion mechanism.<sup>223</sup> The master found that defendant's new device improved the operation of the expansion mechanism, but that the defendant failed to show that any additional profits were attributable to the improvement.<sup>224</sup> The evidence, if anything, showed that the additional manufacturing costs associated with the improvement *reduced* the defendant's profits.<sup>225</sup> Having failed to meet its burden of showing that the improvement added value to the device, the defendant had to pay over its entire profit to the patentee.<sup>226</sup>

### ii. Infringer's Improvement Added Value

¶ 62 If the defendant met its burden of showing that its improvement to the patented invention added value to the infringing product, the burden shifted to the patentee to apportion the profit on the product between the invention and the product's other elements.<sup>227</sup> If the patentee failed to meet this burden—or failed to show that the entire market value rule or trustee *ex malificio* rule<sup>228</sup> applied—the result was harsh: the patentee was only entitled to nominal damages. This was the fate of the plaintiff's claim

---

219. See *Elizabeth*, 97 U.S. at 141.

220. See *id.*

221. *Morss*, 39 F. 468 (C.C.D. Conn. 1889).

222. *Id.* at 468. The patent claim contained the entire new skirt form, and thus the patent was for an entire device rather than an improvement to a device even though there was such a thing as a solid skirt form in the prior art. *Id.* at 472.

223. *Id.* at 469.

224. *Id.* at 469–70.

225. *Id.* at 470.

226. *Id.* at 472–73. See also *Auto Vacuum Freezer Co. v. William A. Sexton Co.*, 250 F. 459 (S.D.N.Y. 1918) (holding that no apportionment was necessary where defendant's clam top for infringing freezers was not an improvement to the claimed freezer, but rather, simply replaced and was the equivalent of the screw top claimed in the patent).

227. See *Westinghouse Elec. & Mfr. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 617 (1912) (“[I]f it be assumed . . . that the spaces [added by the defendant] were non-infringing and valuable improvements, it may then have prima facie appeared that these changes had contributed to the profits. If so, the burden of apportionment was then logically on the plaintiff, since it was only entitled to recover such part of the commingled profits as was attributable to the use of its invention.”).

228. Discussed *infra* at Parts III.B.1.c. and III.B.3.

in *Morss*, which involved a second infringing product.<sup>229</sup> In addition to the infringing skirt form sold by the defendant, discussed *supra*, the defendant also sold an infringing full-figure form.<sup>230</sup> As was the case with the skirt form, the defendant added certain improvements to the patented design.<sup>231</sup> Unlike the improvements to the skirt form, however, the improvements to the dress form were found by the master to “contribute largely to their sales, and added much value to the structure.”<sup>232</sup> Thus, the defendant met its burden of showing that not all of its profits on the device were attributable to the patent.<sup>233</sup> The plaintiff, however, failed to meet its burden:

[There is no] evidence in the case from which I can find the proportion of the amount of stated profits belonging or attributable to the complainant’s patented device, and what to the devices patented by the defendants, and unpatented, which are embodied in the dress-form. There is no evidence from which I can separate the one from other, and, under such circumstances, if the plaintiff should be adjudged profits, *only nominal profits could be given.*<sup>234</sup>

¶ 63 It appears that plaintiffs rarely if ever met this burden by actually apportioning the defendant’s profit.<sup>235</sup> Rather, the plaintiff would typically attempt to rely on the entire market value rule or the trustee *ex malificio* theory, which will be discussed *infra* at Parts III.B.1.c. and III.B.3.

### b. Improvement or Component Patent

¶ 64 Apportionment was far more likely to be an issue in cases involving a patent for an improvement to or component for an existing device. The Court succinctly stated the rule governing improvement/component cases in 1884 in *Garretson*:

When a patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.<sup>236</sup>

¶ 65 Thus, unlike “entire device” cases, where there was a presumption in favor of the patentee that the entire profit on sales of the patented device was attributable to the patent, in an “improvement/component” case, no such presumption existed. The patentee had the burden of establishing the portion of the profit on the article that was attributable to the patented improvement or component. A patentee could meet this burden in much

229. *Morss*, 39 F. at 468.

230. *Id.* at 469.

231. *Id.* at 470.

232. *Id.*

233. *Id.*

234. *Id.* (from the master’s conclusion, which was adopted by the Circuit Court, 39 F. at 471) (emphasis added).

235. One rare example was *Tuttle v. Claflin*, 76 F. 227 (2d Cir. 1896), an infringement by use case discussed *infra* Part III.B.2.a.i.

236. 111 U.S. at 121.



the same way that a patentee could respond to an infringer in an entire device case who had met its burden of showing that its improvement to the patented device had value: the patentee could either offer evidence showing what portion of the profits on the product were attributable to the patented improvement, or could show that the entire market value rule<sup>237</sup> or the trustee *ex malificio* theory applied.<sup>238</sup>

### i. Apportionment By Comparison

¶ 66 In the cases where a patentee met this burden, it typically did so by comparing the patented product to a product that was similar and could be used to achieve similar results, but that lacked the patented feature. One example is *Metallic Rubber Tire Co. v. Hartford Rubber Works Co.*, where the patent at issue disclosed an anti-skid feature imbedded into the periphery of a plain tread tire.<sup>239</sup> The district court had awarded the patentee the defendant's entire profit on sales of its infringing tires on the theory that the improved treads gave the tire its entire market value.<sup>240</sup> The appeals court discerned that there was no evidence in the record to support the district court's conclusion and held that it was the plaintiff's burden to apportion the profits that the defendant derived from the patented improvement to the treads.<sup>241</sup> Fortunately for the patentee, the defendant sold another tire that was identical to the infringing tire except for the patented feature.<sup>242</sup> On the theory that "any profit gained by a defendant from the use of what was old prior to the date of the patent infringed cannot constitute any part of the compensation to be awarded to the patentee," the appeals court directed the district court to calculate the portion of defendant's tire profits that were attributable to the patent by taking the total profits on the tire and deducting the profit the defendant made on its non-infringing tire.<sup>243</sup> Thus, by comparing the profits on two products that were identical in every way except for the patented feature of one, the court could determine the portion of profits attributable to the patent.<sup>244</sup>

¶ 67 Another similar example was *P.P. Mast & Co. v. Superior Drill Co.*,<sup>245</sup> where the patent was for an improvement to a disk grain drill, specifically, the addition of a furrow opener to the drill.<sup>246</sup> The master determined the amount of the defendant's profits owed to the patentee by comparing the defendant's profits on the infringing device to the defendant's profits on a hoe drill, which was similar to the infringing drill in all respects

---

237. *See id.*; *Fay v. Allen*, 30 F. 446, 448 (C.C.N.D.N.Y. 1887).

238. *See, e.g.*, *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 618 (1912).

239. 275 F. 315 (2d Cir. 1921).

240. *Id.* at 319.

241. *Id.* at 321.

242. *Id.* at 322–23.

243. *Id.*

244. *Id.*; *see also* *Fay v. Allen*, 30 F. 446, 448 (C.C.N.D.N.Y. 1887) ("If from the profit realized by the defendant the profit on the old machine were deducted, the result would furnish some guide for determining the value of the invention.").

245. 154 F. 45 (6th Cir. 1907).

246. *Id.* at 46.

save for the furrow opener.<sup>247</sup> On appeal, the defendant argued that the master's methodology was wrong because the law required that a comparison be made between the infringing device and a device that would produce an "equally beneficial result."<sup>248</sup> The court disagreed, holding that all that was required was a comparison to a device that would produce a "similar result."<sup>249</sup> Based on the fact that the infringing device replaced the hoe drill in the market, the court concluded that the hoe drill was the "nearest approach" to the patented invention "in the market and in common use," and therefore provided an adequate basis of comparison.<sup>250</sup> Accordingly, it held there was no error in the master's report.<sup>251</sup>

## ii. *Pro Rata* Apportionment

¶ 68 In *Herman v. Youngstown Car Manufacturing Co.*,<sup>252</sup> the Sixth Circuit used a particularly novel approach. The court found that the patent disclosed an improved lamp-controlling means for a structure for making blueprints.<sup>253</sup> The defendant's manager testified that the defendant had no data concerning the amount of profits that were attributable to the lamp control, but suggested that the product could be divided into four component parts and the profit apportioned equally to each.<sup>254</sup> The court felt that dividing profits equally among the component parts was arbitrary, but reasonable.<sup>255</sup> It held, however, that there were only *two* component parts.<sup>256</sup> Accordingly, the court awarded the patentee one-half of the defendant's profits on sales of the infringing product.<sup>257</sup>

## c. The Entire Market Value Rule

¶ 69 Patentees could meet their burden for apportionment without actually apportioning profits or damages by showing that the entire market value of the infringing product was attributable to the patented invention. This exception to the apportionment doctrine was set forth in *Garretson*,<sup>258</sup> where the Supreme Court stated this principle:

The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the

---

247. *Id.* at 52. The master actually used the patentee's costs and the defendants' prices to calculate the defendant's profits, which was an acceptable method because the defendant had not offered any contrary evidence of its own costs. *Id.*

248. *Id.* at 53.

249. *Id.*

250. *Id.*

251. *Id.* at 57.

252. 216 F. 604 (6th Cir. 1914).

253. *Id.* at 607.

254. *Id.*

255. *Id.* at 608.

256. *Id.*

257. *Id.* at 609. *Cf.* *Calkins v. Bertrand*, 8 F. 755 (C.C.N.D. Ill. 1881) (rejecting the master's recommendation that one-half of the defendant's profits be awarded to the patentee in the absence of reliable data regarding the portion of profits attributable to the plaintiff's patent on the grounds that it was the patentee's burden to provide such data and in light of the patentee's failure to do so, the plaintiff was entitled to only nominal damages).

258. 111 U.S. 120; *see* Bensen, *supra* note 41, at 68.

patented feature and the unpatented features . . . or they must show . . . that the profits and damages are to be calculated on the whole machine, for the reason that the *entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.*<sup>259</sup>

¶70 Typically, the entire market value rule (“EMVR”) comes into play in component/improvement cases such as *Manufacturing Co. v. Cowing*.<sup>260</sup> In *Cowing*, the patentee was able to show that its patent for an improvement to a gas pump allowed the pump to be used in a new market for the first time.<sup>261</sup> Because the infringer would not have sold any of the pumps in that market without the improvement, the Court held that the defendant’s entire profit on its sales was attributable to the patent.<sup>262</sup>

¶71 The EMVR was not used, at least initially, in “entire device” cases because in those cases the patentee enjoyed a presumption that the entire value of the infringing product was attributable to the patented invention.<sup>263</sup> Therefore, no need existed for the patentee to resort to the EMVR in its *prima facie* case. The EMVR did come into play, however, if the defendant rebutted this presumption by showing that the entire value of its product was *not* attributable to the patent because the defendant had added something of value to the invention.<sup>264</sup> In those cases, the patentee could meet its burden of apportioning the defendant’s profits to the patented invention by showing that, notwithstanding the infringer’s added improvement, the entire value of the defendant’s product *was* attributable to the patent.<sup>265</sup>

¶72 This situation is exemplified in *Wales v. Waterbury Manufacturing Co.*, a case involving a patent for an improved lever buckle for use in apparel.<sup>266</sup> The patented buckle was specially designed so that it could be attached to a pencil holder, but the combination of the buckle and pencil holder was not patented.<sup>267</sup> The patentee licensed the patent to the defendant who agreed to pay one royalty for the buckle when sold alone and a much higher royalty for the buckle when sold in combination with the defendant’s pencil holder.<sup>268</sup> The license was ultimately revoked, but the defendant continued to sell

---

259. 111 U.S. at 121 (emphasis added).

260. 105 U.S. 253 (1881).

261. *Id.* at 255–56.

262. *Id.* at 255 (“If the improvement is required to adapt the machine to a particular use, and there is no other way open to the public of supplying the demand for that use, then it is clear the infringer has by his infringement secured the advantage of a market he would not otherwise have had, and that the fruits of this advantage are the entire profits he has made in that market.”).

263. *See supra* Part III.B.1.a.; *Hurlburt v. Schillinger*, 130 U.S. 456, 472 (1889) (holding that the entire value of the defendant’s device was attributable to the patent at issue where that patent was for a “complete combination in itself”). Although there is no reason to believe that the EMVR could not be applied in an appropriate “use” case, it appears that it rarely, if ever, was used in such a manner.

264. *See Wales v. Waterbury Mfg. Co.*, 101 F. 126 (2d Cir. 1900).

265. *See id.*; *Piaget Novelty Co. v. Headley*, 123 F. 897, 898 (C.C.S.D.N.Y. 1903) (rejecting defendant’s claim that it was entitled to apportionment due to the unique shape of its infringing toy registering savings bank because the value of the bank was entirely due to the patented registering system irrespective of the shape of the bank).

266. 101 F. at 126.

267. *Id.* at 126–27.

268. *Id.* at 127.

the buckle and pencil holder combination, giving rise to the claim for infringement.<sup>269</sup>

¶ 73 The defendant apparently met its burden of showing that its pencil holder added value to the buckle, and as a result the district court awarded the plaintiff the defendant's profits as measured by the difference between the defendant's costs and the price of the buckle alone, rather than between the defendant's costs and the higher price of the buckle when sold with the defendant's pencil holder.<sup>270</sup> On appeal, the Second Circuit noted that the pencil holder, which was "useless" by itself, "derived its whole value by being attached to the buckle," and that "there would have been no appreciable demand for the holders if they had not been attached to the patented buckle."<sup>271</sup> Thus, viewing only the *combination* as the marketable article, the Second Circuit held that the patentee was entitled to the defendant's entire profit, notwithstanding the defendant's addition of the pencil holder, because the entire value of the combination was attributable to the patented invention (i.e., the specially adapted buckle).<sup>272</sup>

¶ 74 While satisfying the requirements of the EMVR could relieve the patentee of the burden of apportionment, meeting these requirements was not always easy. For example, in *Roemer v. Simon*,<sup>273</sup> the defendant sold traveling bags that infringed a patent on a lock for such bags. The patentee sued him, seeking the infringer's entire profit from the sale of the bags.<sup>274</sup> The court rejected the patentee's argument, explaining:

However it might be as to articles wholly covered by a patent for which there was no, or no convenient, substitute, it does not follow in a case like this that a purchaser of the principal thing with a patented incident would go until he should find that particular kind in incident before purchasing. The form, material, or workmanship, of the bag itself may have been, and is quite likely to have been, as decisive with the purchaser as, and perhaps more so than, the lock.<sup>275</sup>

¶ 75 The patentee failed to show that any part of the defendant's profit on the bags was attributable to the patented lock, and accordingly, received only nominal damages.<sup>276</sup>

¶ 76 In determining whether the EMVR applies, it is important to distinguish between an improvement that permits a product to enter a market where it had not been sold before, such as in *Cowing*, and an improvement that allows a product to completely displace a competing product in the market. The fact that a product with a patented improvement completely displaces the unimproved product in the marketplace does not

---

269. *Id.*

270. *Id.* at 127–28 (“In disallowing the profits upon the combined buckle and lever, [the master] did so apparently in deference to the rule that, where the articles which have been made and sold by the infringer contain not the patented invention alone, but other inventions or improvements, the profits for which he is to account are not the total profits, but those only which are attributable to the presence of the patented invention.”).

271. *Id.* at 127–28.

272. *Id.* at 129.

273. 31 F. 41 (C.C.S.C.N.Y. 1887).

274. *Id.* at 41–42.

275. *Id.* at 42.

276. *Id.* at 41–42.

necessarily mean that the EMVR requirements are satisfied. The lower court in *Whitney v. Mowry* described a hypothetical situation that illustrates the problem:

Suppose, in further illustration of this view of the subject, it be a railroad car, the cost of which is thousands of dollars, and some little invention is made in regard to the interior structure of the car, or in its ornamentation, which is patentable under the act of 1861; yet the slight, the simple thing is such as to strike the public taste and judgment, and have such an effect in the commercial world that nobody will buy the article without that invention; yet it would seem to be a pretty hard measure of justice in a court of equity, to say that the entire profits made on that large article should go into the pockets of the inventor and patentee of this small thing, which had been used without license or authority in connection with it.<sup>277</sup>

¶77 In other words, the fact that one could not sell a product without the patented improvement did not necessarily mean that the patented improvement provided the entire market value of the product.<sup>278</sup>

## 2. Infringement by Use

¶78 Unlike manufacture and sale cases, where the issue was what portion of the defendant's profits on sales of the infringing product are attributable to the patented invention, the issue in a "use" case was what cost savings the infringer enjoyed from using the patented invention over other means available at the time of infringement for achieving a similar result.<sup>279</sup> The burden was on the patentee to show the benefit the infringer enjoyed from the use of the patented invention.<sup>280</sup> The issues of cost savings attributable to the patent and available alternatives to the patent are discussed separately below.

---

277. 29 F. Cas. 1102, 1104 (S.D. Ohio 1868).

278. See *Garretson*, 10 F. Cas. at 43 ("[T]he plaintiff . . . assumes, without sufficient evidence, that the market for the plaintiff's mop was made solely by the fact that the mop contained the improvements patented by the plaintiff's patents. This would not follow, even from the fact that the mop, with such improvements, had driven other mops out of the market."); see also *P.P. Mast & Co.*, 154 F. at 53 (awarding apportioned profits even though patent device displaced earlier device in the market).

279. See, e.g., *Columbia Wire Co. v. Kokomo Steel & Wire Co.*, 194 F. 108, 109 (7th Cir. 1911) ("[A]n infringer is only to pay for the advantages of the patented machine over machines that were open to his use at the time of the unlawful appropriation, and not to pay for the advantages of the patented machine over machines that were open at the date of the patent . . ."); *Williams v. The Rome, Watertown & Ogdensburgh R. Co.*, 2 F. 702, 704-06 (C.C.N.D.N.Y. 1880) (awarding infringer's profit measured by the cost savings the infringer enjoyed from using an infringing locomotive lamp that could burn kerosene instead of more expensive oils).

280. While there is virtually no discussion of the plaintiff's burden in the infringement by use cases, the holding of each case discussed herein is consistent with the general rule that the plaintiff had at least the initial burden of apportionment. See, e.g., *Westinghouse v. N.Y. Air Brake Co.*, 140 F. 545, 549 (2d Cir. 1905) (citing *Garretson*, 111 U.S. at 291). There appears to be no case to the contrary.

## a. Cost Savings as the Measure of Infringer's Profits

### i. Use in the Manufacturing Process

¶79 A leading “use” case was *Tilghman v. Proctor*, where the patent at issue disclosed a process for manufacturing fatty acids and glycerine from fatty bodies.<sup>281</sup> The patented process used a lesser amount of chemicals, yet yielded a greater output than comparable methods.<sup>282</sup> In determining the infringer’s “profits, gains, savings and advantages” from the use of the infringing process, the master did not look at the profit margin on sales of the final product. Rather, the master considered both the cost savings the infringer enjoyed from spending less on chemicals, and the profit derived from the increased output.<sup>283</sup> Although it made adjustments to the actual numbers, the Supreme Court upheld the master’s approach.<sup>284</sup> The Court emphasized that the patentee was entitled to recover only the gains that the infringer actually enjoyed from its use of the process, rather than the gains it *could have* enjoyed.<sup>285</sup> In other words, if the infringer, through its own misuse of the potential process, did not actually reap any benefits, the patentee would not be entitled to recover any profits or gains from the infringer.

¶80 An infringer who uses an invention but adds an improvement to it, is entitled to apportionment of the invention’s profits. For example, in *Tuttle v. Claflin*, the patent at issue disclosed a machine for manufacturing textile plaits, which the patentee successfully argued was an improved machine rather than an improvement to an existing machine.<sup>286</sup> The infringer, however, improved the machine by adding heat to a lower roller in the feeding mechanism, thereby making the machine useful for ironing the fabric.<sup>287</sup> The use of heating in the roller was not novel, but the court nonetheless held that it added value to the machine and, therefore, the defendant was entitled to apportionment of the profits it otherwise would have had to pay to the patentee.<sup>288</sup> Accordingly, rather than comparing the defendant’s cost per plait of using the infringing machine, which did not include ironing, to the costs per plait of hand manufacture, which did include ironing, the court concluded that the proper comparison was the cost of manufacturing the plaits using the machine to the cost of manufacturing them by hand *less* the cost of ironing them.<sup>289</sup> Under this comparison, the cost of hand manufacture was less, and thus the cost savings from using the machine were less. As a result, the

---

281. 125 U.S. 136, 137 (1888). Another leading case in this respect was *Mowry*, discussed *supra* Part II.A.2.a.

282. *Tilghman*, 125 U.S. at 142.

283. *Id.*

284. *Id.* at 159–60.

285. *Id.* at 151.

286. *Tuttle v. Claflin*, 76 F. 227, 233 (2d Cir. 1896); *cf. Elizabeth*, 97 U.S. at 142 (distinguishing between an improved device, i.e., a new, complete combination, and an existing device with an improvement).

287. *Tuttle*, 76 F. at 234.

288. *Id.* at 234 (“The heated roll, so far as it was a mangle, was an annex to the existing mechanism; and, if it was a superaddition which produced a pecuniary benefit in its operation, it is not of importance that it had been used before in like machines.”).

289. *Id.* at 234, 237–38.

court reduced the amount of profits awarded by the lower court.<sup>290</sup>

## ii. Use in the Final Product

¶ 81 “Use” cases included cases where an infringer incorporated a patented component in its product not for the purpose of increasing the value of the product, but in order to decrease manufacturing costs. An interesting example is *Sessions v. Romadka*, where the patent at issue disclosed a fastener for securing trunk lids.<sup>291</sup> Prior to the patented invention, trunk lids had been secured by a combination of straps, buckles and dowels.<sup>292</sup> The patented fastener universally replaced the straps, buckles, and dowels in the manufacture of trunks, but was nonetheless an “inconsiderable” part of a trunk in terms of the trunk’s value.<sup>293</sup> Using the fastener in place of straps and dowels, however, lowered the manufacturing cost of trunks.<sup>294</sup> The infringer manufactured and sold trunks incorporating the patented fastener, but did not sell the fasteners separately.<sup>295</sup>

¶ 82 Holding that the proper measure of recovery was the benefit the infringer enjoyed from using the patented invention over other means available for achieving the same result, the master awarded the patentee the amount the infringer saved through “use” of the patented fastener, rather than straps and dowels, in its trunks.<sup>296</sup> The district court then rejected the master’s recommendation and awarded nominal damages.<sup>297</sup> In response to the patentee’s arguments on appeal, the defendant argued that the rule applied by the master was applicable where the infringer used the patented invention in the operation of its business, but not where the infringer manufactured and sold a patented device.<sup>298</sup> The Court did not question that distinction, but viewed the infringement as one in which the patented invention was “used” in the operation of the defendant’s business rather than one involving the sale of a patented item (the fastener) or an item with a patented improvement (a trunk with a fastener).<sup>299</sup> Accordingly, the infringer’s actions came under the rule of *Tilghman* and the master’s report was affirmed.<sup>300</sup>

### b. Reduced Losses as a Measure of the Infringer’s Profits

¶ 83 Typically, the cost savings achieved from the use of a patented invention resulted in an increased profit margin for the infringer. *Tilghman*, discussed above, is a typical example of this situation. Interestingly, however, the fact that an infringer *loses*

---

290. *Id.* at 238.

291. 145 U.S. 29, 31 (1892).

292. *Id.* at 45.

293. *Id.*

294. *Id.*

295. *Id.*

296. *Id.* at 31, 46–48.

297. *Id.* at 31–32.

298. *Id.* at 48.

299. *Id.* As the Court observed, it made no difference, viewed this way, whether the infringer made a profit on the trunks. *Id.*

300. *Id.* at 46–48; accord *Rose v. Hirsh*, 91 F. 149, 150 (E.D. Pa. 1898) (“[I]t would be quite as legitimate to establish the existence of profit in this case by showing that the defendants, by using their infringing ‘stick,’ had cheapened the cost of their umbrellas, as by showing that, by such use, they had enhanced their price.”).

money using a patented process does not necessarily bar the patentee from recovering in equity from the plaintiff in the same way that it would in a device case. This scenario is illustrated in the *Cawood Patent* case.<sup>301</sup> The patent in *Cawood* disclosed an improved anvil for use in repairing crushed and exfoliated ends of railroad rails.<sup>302</sup> However, as it turned out, repairing such rails was unprofitable compared to simply cutting off their damaged ends. The defendants argued that since it lost money using the patented device, they should not owe the patentee anything.<sup>303</sup> The Court rejected the defendant's argument, holding that "[i]f [the defendant's] general business was unprofitable, it was the less so in consequence of their use of the plaintiff's property. They gained, therefore, to the extent that they saved themselves from loss."<sup>304</sup> Thus, an infringer could have a "gain" for the purpose of settling its account with the patentee even where it did not have a profit.<sup>305</sup>

### c. Availability of Alternatives

#### i. Which Alternatives to Consider

¶ 84 The fact that the infringer could have saved money by using other available methods or devices did not necessarily save the infringer from paying over its profits to the patentee.<sup>306</sup> *Thomson v. Wooster*<sup>307</sup> provides an illustration. The patent in *Thomson* disclosed an improved folding guide for sewing machines that the defendants used to fold strips for corsets.<sup>308</sup> The master found that the only other method for making the strips was by hand and charged the defendants with their cost savings over hand manufacture of one-half cent per yard.<sup>309</sup> However, the defendants could have purchased the strips on the market for only one-sixth of a cent per yard instead of making the strips themselves.<sup>310</sup> The defendants argued on appeal that the master's finding was in error, but the Court, after raising the obvious question of why the defendants did not buy the strips if they were cheaper to buy than to manufacture, held:

At all events, since the defendants chose to make their own folded strips in their own factory, instead of going outside to purchase them, or have them made by others, they cannot justly complain of being accountable for the profits realized in using the complainant's machine for that purpose. . . . [A]s they chose to perform the operation they became responsible to the patentee for the advantage derived from using his machine.<sup>311</sup>

---

301. *In re Cawood Patent*, 94 U.S. 695 (1876); accord *Tilghman*, 125 U.S. at 146 ("But if the defendant gained an advantage by using the plaintiff's invention, that advantage is the measure of the profits to be accounted for, even if from other causes the business in which that invention was employed by the defendant did not result in profits.").

302. *Cawood*, 94 U.S. at 696.

303. *Id.* at 710.

304. *Id.*

305. *See id.*

306. *See id.*

307. 114 U.S. 104 (1885).

308. *Id.* at 104, 116.

309. *Id.* at 106, 116.

310. *Id.* at 116.

311. *Id.* at 118.



¶ 85 In other words, for the purpose of determining the benefit of using the patented device, the court may compare the use of other methods for manufacturing the device to manufacturing the product with the patented device; the fact that the infringer could have saved money by *not manufacturing* is irrelevant.

## ii. Availability of Patented Alternatives

¶ 86 While foregoing the relevant activity altogether was not considered an available alternative in “use” cases, an alternative could be “available” to the defendant even though it was also patented by the patentee. For instance, in *McCreary v. Pennsylvania Canal Co.*, the patentee had a patent for an improvement on a steering device used in canal boats, but sued based on infringement of a later patent he held for a further improvement on the device.<sup>312</sup> The master held that the patentee was only entitled to the profits attributable to the improvement in the second patent.<sup>313</sup> Because the patentee had offered no evidence as to the profits attributable to the improvement disclosed in the patent in suit, the master awarded no profits to the plaintiff.<sup>314</sup> The plaintiff contended that in determining the benefit derived from the patent in suit, its earlier patent should not have been considered because it was not available to the defendant.<sup>315</sup> The Court disagreed, holding that the question was not whether the defendant had the right to use the earlier patent, but whether it did *not* have that right.<sup>316</sup> Because issues regarding the ownership and validity of the earlier patent could not be assumed for the purpose of the damages analysis, the master could not have assumed that it was not open to the defendant.<sup>317</sup> Accordingly, the master’s award was upheld.<sup>318</sup>

## 3. The Trustee *Ex Malificio* Theory

¶ 87 In addition to actual apportionment and the EMVR, a patentee could also argue that it was entitled to the infringer’s profit under the trustee *ex malificio* theory. The recovery of an infringer’s profits is, as previously noted, based on an analogy to trust law.<sup>319</sup> A subsidiary principle of trust law that would sometimes come into play was the rule that a trustee who had co-mingled its own assets with that of the trust would have the burden of separating its assets from those of the trust. If the trustee failed, it could then be called on to account for all of the co-mingled assets.<sup>320</sup> The applicability of this principle to the recovery of an infringer’s profits was first recognized by the Court in *Westinghouse Electric & Manufacturing Co. v. Wagner Electric & Manufacturing Co.* in 1912.<sup>321</sup> In

312. 141 U.S. 459, 461–62 (1891).

313. *Id.* at 463.

314. *Id.* at 467.

315. *Id.* at 464–65.

316. *Id.* at 465.

317. *Id.*

318. *Id.* at 467.

319. *See supra* Part III.A.2.

320. *Westinghouse Elec. & Mfg. Co.*, 225 U.S. at 617–22.

321. *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 617–22 (1912).

One earlier lower court case to note the applicability of the trustee *ex malificio* theory to patent cases was *Wales v. Waterbury Mfg. Co.*, 101 F. 126, 128–129 (2d Cir. 1900). An early case that applied the principle without expressly referring to the theory was *Rubber Co. v. Goodyear*, 76 U.S. 788, 803–04 (1869)

*Westinghouse Electric*, the court below had awarded the plaintiff only nominal damages because the defendant had shown that its improvements to the patented device, an electrical transformer, were valuable, and because the plaintiff failed to apportion the defendant's profits to the patent, as was required in light of the defendant's showing.<sup>322</sup> The defendant, however, had commingled its receipts from sales of its infringing transformers with sales of its other products.<sup>323</sup> This practice made it impossible to determine the profits made on the transformers, and to determine what portion of the profits was attributable to the patent versus what part was attributable to the improvements.<sup>324</sup>

¶ 88 The Court agreed that the plaintiff had the burden of apportioning the defendant's profits,<sup>325</sup> but it also concluded that the plaintiff had met that burden by showing that the defendant had inextricably commingled the profits attributable to the patent with profits attributable to the defendant's improvements to the patented device.<sup>326</sup> In the Court's view, the case below was one where:

[T]he court was called on to determine the liability of a trustee *ex malificio*, who had confused his own gains with those which belonged to the plaintiff. One party or the other must suffer. The inseparable profit must be given to the patentee or the infringer. The loss had to fall on the innocent or the guilty. In such an alternative the law places the loss on the wrongdoer.<sup>327</sup>

¶ 89 Accordingly, the Court held that where a patentee had exhausted all available means of apportionment and demonstrated that it was impossible to make a separation of the profits, it would be entitled to the defendant's entire profit.<sup>328</sup>

#### 4. Nominal Damages/Reasonable Royalty

¶ 90 A patentee who failed to meet its burden of apportionment was dealt with harshly. As *Morss*, discussed *supra*,<sup>329</sup> illustrates, in an entire device case where the infringer added something of value to the invention, the patentee had to apportion the available profits to the invention or walk away with only nominal damages. As was shown in *Westinghouse v. New York Air Brake Co.*, patentees of a component who failed to meet their burden of apportionment would recover no more.<sup>330</sup> In *Westinghouse*, the patent at issue was for a "quick action" triple valve, which was used in an air brake mechanism on

---

(affirming master's refusal to apportion the infringer's profits to account for profits from non-infringing products where the manner in which the infringer's book were kept made such an apportionment impossible).

322. *Westinghouse Elec. & Mfg. Co.*, 225 U.S. at 610.

323. *Id.* at 608.

324. *Id.* at 618.

325. *Id.* at 617.

326. *Id.* at 618.

327. *Id.* at 618–19.

328. *Id.* at 621.

329. See *supra* Part III.B.1.a.ii.

330. 140 F. 545, 552 (2d Cir. 1905).

railroad cars.<sup>331</sup> The patented “quick action” attachment was an improvement to existing triple valves, which were used in air brake systems to allow for graduated application or removal of the brakes, because it allowed for emergency use of the triple valve.<sup>332</sup> The court below awarded to the patentees the defendant’s profits on sales of the triple valves as opposed to sales of the air brake systems containing the valves.<sup>333</sup> The Second Circuit, however, overturned the award, noting that

[t]he decree appealed from . . . allows the [patentees] a recovery, not only for the profits realized by the defendant in making and selling quick-action triple valves upon which the device of the patent in suit is only an improvement, but also those realized from making and selling the ordinary triple valve, without which the quick-action attachment would be comparatively valueless, and which the defendant and the public generally were free to make and sell . . . .<sup>334</sup>

¶91 Because the patentees made no attempt to apportion the defendant’s profits between the patented and unpatented features of the quick action triple valve, they were entitled to only nominal damages.<sup>335</sup>

¶92 Nominal damages also awaited patentees who failed to meet their apportionment

---

331. *Id.* at 546.

332. *Id.* at 547–48.

333. *Id.* at 547.

334. *Id.* at 548–49.

335. *Id.* at 552. Occasionally, a defendant would take a more active role in procuring a nominal damages award for itself. For instance, in *Calkins v. Bertrand* the patentee was awarded nominal damages after the defendant built an alternative model of its product that omitted the infringing feature, but that performed just as well as its infringing model. 8 F. 755, 760 (C.C.N.D. Ill. 1881). Similarly, the defendant in *Mosher v. Joyce* was charged with only nominal damages because it was able to show that, in addition to an infringing jack, it sold a comparable non-infringing jack that was more popular and profitable. 45 F. 205, 206 (S.D. Ohio 1891).

A similar result was reached where the plaintiff failed to show any profits on the infringing article. It was fundamental that a patentee could not recover the infringer’s profits if the infringer did not make any profits. See *Elizabeth*, 97 U.S. at 138 (“[O]ne thing may be affirmed with reasonable confidence, that, if an infringer of a patent has realized no profit from the use of the invention, he cannot be called upon to respond for profits . . .”). It was, of course, the patentee’s burden to show that the defendant made profits on the infringing device. *Keystone Mfg. Co. v. Adams*, 151 U.S. 139, 147, 149 (1894). Thus, if the patentee relied on incompetent proof to establish the infringer’s profits, it ran the risk of recovering only nominal damages. See *id.* at 148–49. In *Keystone Manufacturing*, for example, the patentee established the defendant’s profits in the court below by introducing evidence of what third parties made on sales of substantially similar devices. *Id.* at 146. The Court rejected the lower court’s holding on the grounds that by allowing the plaintiff to prove the defendant’s profit by showing the profit others had made on similar devices, the court had permitted the patentee to show what the defendant *could have* made rather than what it *actually* made. *Id.* at 148. Because the defendant may have operated at a loss—in which case there would have been no profits to award—this calculation was improper. *Id.* at 148. Accordingly, the patentee was entitled to only nominal damages. *Id.* at 149; accord *Tilghman*, 125 U.S. at 146 (“The profits, therefore, which he must account for, are not those which he might reasonably have made, but those which he did make, by the use of the plaintiff’s invention . . .”); *Dean v. Mason*, 61 U.S. 198, 203 (1857) (holding that it was erroneous to award the patentee “the estimated amount of profits which the defendant, with reasonable diligence, might have realized; not what, in fact, he did realize”).

burden in “use” cases. One example is *Black v. Thorne*.<sup>336</sup> In *Black*, the two patents at issue covered improvements in burning wet tan bark, sawdust, and other fuels in heating or drying operations.<sup>337</sup> The master originally awarded the patentee the savings the infringer enjoyed over *burning wood* in those operations, but that report was set aside.<sup>338</sup> In his second report, the master awarded no profits because the patentee had not shown that the infringer enjoyed any benefits from the patented process as compared to other methods of *producing heat*.<sup>339</sup>

¶ 93 The case was appealed to the Supreme Court, and the issue before the Court was which report was correct.<sup>340</sup> According to the Court, the first report comparing the patented invention to burning wood could have been correct only if the master’s finding was the sole method besides burning wet tan that could be used for the same purposes.<sup>341</sup> However, there were other methods of producing heat that the infringer could have used in its business, and the patentee had not proven that, relative to those methods, the patented method had any benefit.<sup>342</sup> Thus, the Court held that “[i]f other methods in common use produce the same results, with equal facility and cost, the use of the patented invention cannot add to the gains of the infringer, or impair the just rewards of the inventor.”<sup>343</sup> In other words, the mere fact that a party infringed a patent did not entitle the patentee to recovery.<sup>344</sup> Accordingly, the patentee was entitled to only nominal damages.<sup>345</sup>

¶ 94 Under contemporary patent damages law, however, a patent is entitled to at least a reasonable royalty once infringement has been shown.<sup>346</sup> Thus, a patentee who has the burden of apportioning lost profits, but fails to do so, no longer has to walk away empty-handed. Rather, such a patentee will be entitled to a reasonable royalty.<sup>347</sup>

---

336. 111 U.S. 122 (1884).

337. *Id.* at 122.

338. *Id.* at 123.

339. *Id.*

340. *Id.*

341. *Id.* at 124.

342. *Id.*

343. *Id.*

344. *See id.* (“It does not always follow that because a party may have made an improvement in a machine and obtained a patent for it, another using the improvement and infringing upon the patentee’s rights will be mulcted in more than nominal damages for infringement.”).

345. *Id.*; accord *Shannon v. Bruner*, 33 F. 871, 875 (E.D. Mo. 1888) (overruling exceptions to the master’s report allowing only nominal damages where patentee failed to show that its patented method for laying concrete in sections provided any benefit to the infringer over other available methods for laying concrete in sections).

346. *See supra* Part III.A.4.

347. Interestingly, however, while a patentee who has proven infringement is entitled to a reasonable royalty, in rare cases, that royalty may be 0%. *See, e.g., Minco, Inc. v. Combustion Eng’g, Inc.*, 95 F.3d 1109, 1121 (Fed. Cir. 1996) (“Viewed another way, the trial court determined that, under a hypothetical royalty negotiation in 1986, [the defendant] might have paid a high royalty to Minco for its use of the kilns in exchange for Minco’s agreement to receive no additional royalty should [the defendant] sell its business.”); *Devex Corp. v. Gen. Motors Corp.*, 667 F.2d 347, 362–63 (3d Cir. 1981) (upholding master and trial court’s refusal to award a royalty for infringement of a method patent where patentee failed to provide a reasonable basis of comparison); *see also Lindemann Maschinefabrik GmbH v. Am. Hoist & Derrick Co.*, 895 F.2d 1403, 1407 (Fed. Cir. 1990) (“As above indicated, the statute obviates the need to

### C. Apportionment of the Patentee's Lost Profits

¶ 95 Cases where the Court specifically addressed apportionment of lost profits are rare, but they exist. One example is *Yale Lock Manufacturing Co. v. Sargent*.<sup>348</sup> The patent in *Yale Lock* was for an improvement to, not surprisingly, a lock. Specifically, the patent concerned the use of a turning bolt, instead of a sliding bolt, in a lock.<sup>349</sup> The infringer's lock, in addition to incorporating the turning bolt, also incorporated another component that allegedly infringed the "Rosner Patent," a patent owned by a third party that was suing the defendant in separate action.<sup>350</sup> The master was unable to determine the infringer's profit on its lock and, therefore, was limited to determining the patentee's lost profits, which were in the form of reductions in price the patentee undertook in order to compete with the infringing locks.<sup>351</sup> The master, however, proportionately reduced the patentee's lost profits by the value of the Rosner Patent, which the patentee conceded accounted for one-third of the defendant's profit on its lock.<sup>352</sup> The Supreme Court affirmed the master's apportionment of the patentee's lost profits.<sup>353</sup>

¶ 96 It was also true that, as with an infringer's profits, a patentee who had the burden of apportioning its lost profits, but failed to meet that burden, was entitled to only nominal damages.<sup>354</sup> *Blake v. Robertson*<sup>355</sup> provides an example of this rule. The patent in *Blake* was for a combination of components forming a stone-breaking machine.<sup>356</sup> The patentee established the profit it made on sales of its machines and the number of infringing machines sold by the defendant.<sup>357</sup> The patentee's machine, however, was covered by other patents, and the patentee failed to show how much of its profits were attributable to those patents.<sup>358</sup> As a result, the lower court awarded the patentee only nominal damages.<sup>359</sup> The Supreme Court affirmed the award, holding that "it would have been error to give more."<sup>360</sup>

## IV. CONCLUSION

¶ 97 When the Supreme Court adopted apportionment in *Seymour* more than

---

show the fact of damage when the infringement is admitted or proven, but that does not mean that a patentee who puts on little or no satisfactory evidence of a reasonable royalty can successfully appeal on the ground that the amount awarded by the court is not 'reasonable' and therefore contravenes section 284.").

348. 117 U.S. 536, 552–53 (1886).

349. *Id.* at 538.

350. *Id.* at 549.

351. *Id.* at 552–53.

352. *Id.* at 549–50.

353. *Id.* at 553.

354. See *Dobson v. Hartford Carpet Co.*, 114 U.S. 439, 445–47 (1885) (reversing award of lost profits for infringement of design patents relating to carpet where plaintiff failed to apportion its profits to the patented design).

355. 94 U.S. 728 (1876).

356. *Id.* at 729.

357. *Id.* at 733.

358. *Id.* at 734.

359. *Id.*

360. *Id.*

150 years ago, it observed:

It must be apparent to the most superficial observer of the immense variety of patents issued every day, that there cannot, in the nature of things, be any one rule of damages which will equally apply to all cases. The mode of ascertaining actual damages must necessarily depend on the peculiar nature of the monopoly granted. . . . [O]ne who invents some improvement in the machinery of a mill could not claim that the profits of the whole mill should be the measure of damages for the use of his improvement.<sup>361</sup>

¶ 98 It is hard to imagine that the Court in *Seymour* would have come to any other conclusion had it been confronted with an infringing computer chip or medical device. The multiplicity of patents covering such modern products give rise to the very problems that the Court tried to avoid through apportionment: infringers being forced to pay more than once for the same act of infringement, and patents being used to protect that which is not patented. Today, there is no precedential impediment to apportionment because the Supreme Court has never overturned or in any way limited its apportionment decisions. Nor is there any statutory impediment, because the patent statute continues to grant inventors a right to sell their *inventions*, not their *products*. As technology advances and single products are covered by a greater number of patents, apportionment becomes more, not less, relevant. Accordingly, apportionment of lost profits is not only still required—it is also necessary to balance the rights of patentees and their competitors.

---

361. *Seymour*, 57 U.S. at 489.