

Wheelabrator Clean Water Systems, Inc. (“Wheelabrator”) holds U.S. Patent No. 4,869,877 (hereinafter “‘877”) for a composting facility, and U.S. Patent No. 5,149,196 (hereinafter “‘196”) for a complementary compost agitating machine. Drawings of the patented machines are attached as Exhibits A (‘877) and B (‘196). I quote from the stipulated facts concerning municipal composting:

The patents-in-suit relate to “agitated bin” composting in which sludge from municipal waste water treatment plants is cured in several parallel bins. The vertical bin sidewalls are spaced apart, and a “turning machine” rides along tracks at the top of the bin sidewalls and extends downwardly to just above the bin floors. Tines mounted on a rotating drum turn, and thus aerate, the sludge. . . .

Composting is performed by aerobic bacteria which break down organic materials, generating heat in the process. This heat, if maintained over a certain period of time, will destroy harmful pathogens residing in the sludge. However, if the temperature of the sludge becomes too high, as is its natural tendency, bacterial activity is retarded and process efficiency falls off dramatically. . . .

In the prior art, it was known to manually check the temperature of the material in the bins with a hand-held temperature probe. If the temperature was too high, blowers were switched on to supply air, through conduit, into the bins. . . .

There were several problems with manual sensing and blower actuation. First of all, the temperatures were not uniform within the bins, either along the length of the bins or the depth of the material. When follow-up temperature readings were made, there was no certainty that the temperature readings were taken from the same location. Secondly, it was difficult to insert a temperature probe to any substantial depth of the material. Thirdly, and perhaps importantly, the temperature of the material had to be reduced by aeration, but not to a point below the range required to kill pathogens. The timing of actuation/de-actuation of the blowers could not be optimized using manual probing.

Joint Stipulation of Facts ¶¶ 1-4 (citations omitted) [hereinafter “Stipulation”].

Wheelabrator and Longwood Manufacturing Corp. (“Longwood”) both submitted bid packages to build a composting facility for the Lewiston-Auburn Water Pollution Control Authority

(“LAWPCA”) in 1992. Longwood won the contract award and in 1993 installed a composting facility and compost agitating machine at the Lewiston-Auburn site. In July of 1995, Wheelabrator conducted an on-site infringement investigation; thereafter, Longwood made certain alterations at the LAWPCA. On December 27, 1995, Wheelabrator filed this lawsuit against Longwood for infringement as to both the original version as built and the altered version. Heeding the message of Boston Five Cents Sav. Bank v. HUD, 768 F.2d 5, 11-12 (1st Cir. 1985), the parties have submitted a stipulated record requesting that I rule on infringement and recoverability of damages in advance of this matter proceeding to the jury.

II. THE LAW OF INFRINGEMENT

Infringement analysis under United States patent law is two-fold. First, the scope of the patent claim must be construed. Second, the accused product and the properly defined patent claim are compared to determine whether an infringement has occurred. See Southwall Technologies, Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir.), cert. denied, 116 S. Ct. 515 (1995). The first step, patent construction, is “exclusively within the province of the court.” Markman v. Westview Instruments, Inc., 116 S. Ct. 1384, 1387 (1996).

The second step, infringement, may be of two varieties. Literal infringement occurs when the accused device includes every element of the patented claim. See Transmatic, Inc. v. Gulton Indus., Inc., 53 F.3d 1270, 1277 (Fed. Cir. 1995). Alternatively, an accused device that does not literally embody the patent may nevertheless infringe under the doctrine of equivalents. Under this doctrine, “if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.”

Graver Tank & Mfg. Co. v. Linde Air Prod. Co., 339 U.S. 605, 608 (1950) (quoting Union Paper-Bag Mach. Co. v. Murphy, 97 U.S. 120, 125 (1877)).

Infringement, whether literal or by equivalents, is a factual determination. See, e.g., Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1520-21 (Fed. Cir. 1995), cert. granted, 116 S. Ct. 1014 (1996). Here, however, the facts are undisputed. I consider the scope and possible infringement of each patent in turn.¹

III. THE '877 PATENT

Wheelabrator's '877 patent protects:

1. A composting facility comprising:
an elongated composting bay to receive organic waste material and
to hold the material while it composts, the bay including a
frame defining an interior of the bay;
a compost handling machine . . . and
a ventilation system . . . the ventilation system including . . . a sensor
located in the bay to sense the temperature of the compost and to
generate a signal in response to said temperature . . .
wherein the frame of the bay defines a recess extending outward from
the interior of the bay, the sensor is located in the recess, and the
composting bay further includes a cover plate r e l e a s a b l y
connected to the frame, and covering the recess to hold the sensor
therein and to keep the compost out of the recess. . . .

9. A composting facility comprising:
an elongated composting bay to receive organic waste material and to
hold the material while it composts . . .
a compost handling machine . . .
a ventilation system . . . the ventilation system including . . . a
multitude of sensors . . .

¹ The issues of validity and enforceability of both patents are not the subject of this Order, and are scheduled to proceed to jury trial following disposition of this Order.

wherein the frame of the bay includes a floor and side walls, the side walls forms a multitude of recesses, and the sensors are located in said recesses.²

Stipulation ¶¶ 11, 12. The infringement issue here is the location of the sensors. Longwood argues that because the sensors in its altered facility at LAWPCA are not located “in” a “recess” of any frame or bay, its retrofitted facility does not infringe the ‘877 patent.

A. Longwood’s Original Facility

The ‘877 patent describes a sensor located in a recess (Claims 1 and 9) and held therein by a releasably connected cover plate affixed to the frame of the bay (Claim 1). As originally installed, Longwood’s LAWPCA machines contained sensors that “were mounted on plates that were flush mounted in recesses formed in the walls of the bins,” Stipulation ¶ 31, and cover plates that were releasable. Longwood’s original facility was plainly within the language of the ‘877 claim, even

² Wheelabrator’s complaint also alleges infringement of claims 2-6, 8, and 10-13 of the ‘877 patent, all of which depend from the quoted claims 1 and 9. While it is true that “[c]laims in dependent form shall be construed to include all the limitations of the independent claim incorporated by reference into the dependent claim,” Stipulation ¶13 n.* (citing 37 C.F.R. § 1.75(c)), the parties’ briefs discuss only infringement of the independent claims. Presumably, they have deferred arguing infringement of the dependent claims pending a determination of infringement of the independent claims, since “[o]ne who does not infringe an independent claim cannot infringe a claim dependent on (and thus containing all the limitations of) that claim.” Wahpeton Canvas Co. v. Frontier, Inc., 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989). Because I find the independent claims are infringed, however, Wheelabrator may later argue, and Longwood may contest, that the dependent claims are likewise infringed. See id. (“One may infringe an independent claim and not infringe a claim dependent on that claim.”). On the other hand, Wheelabrator may be satisfied with infringement of the independent claims alone since “[i]nfringement of an independent claim would result in the same damage award as would infringement of all claims dependent thereon.” Id. at 1553 n.10. In any case, infringement of the dependent claims is neither argued nor addressed in this motion and Order.

In terms of the independent claims, this Order addresses both independent claims 1 and 9 of the ‘877 patent since that appears to be the request of the parties. I note, however, that the briefs submitted by the parties in the summary judgment stage acknowledge claim 9, but proceed in their arguments to discuss only claim 1. This may be due to the nearly identical language of the claims, and the fact that the dispute revolves around the language covering placement of the sensors in both claims. Since I find claim 1 of the ‘877 patent is infringed by the equivalent and insubstantially different Longwood sensors, it follows by the same reasoning that claim 9 is infringed because it contains virtually identical claim language with respect to the sensors.

under the precise standards of literal infringement. I find that the original version literally infringed the ‘877 patent.³

B. Longwood’s Retrofitted Facility

The retrofitted facility may not meet the exacting literal infringement standard.⁴ See Hilton Davis, 62 F.3d at 1517 (stating that “only exact duplicates literally infringe”); Southwall Technologies, 54 F.3d at 1575 (“To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly.”). When the original sensors failed, Longwood replaced them by removing the original mounting plates. See Stipulation ¶ 32. The retrofit sensors were attached to a “re-designed cover plate . . . [which] was machined to define a groove in its inner surface. The sensor was attached . . . and the plate was bolted to the bin walls.” Id. ¶ 33. The result is a sensor that is no longer completely in the recess. Nonetheless, I find infringement under the doctrine of equivalents since Longwood’s changes are insubstantial.

First, however, Longwood argues that the claim language describing the sensor’s location must be narrowly construed because only by re-application and explanation was the patent examiner persuaded to grant the ‘877 patent. Specifically, Longwood points out that before the ‘877 patent

³ Longwood makes no argument that its original facility does not infringe the patents, instead relying on its marking argument (discussed infra in Part V of this Order). Marking, however, is a limitation on *damage* liability; it is not a statutory defense to infringement. See Motorola, Inc. v. United States, 729 F.2d 765, 769-70 (Fed. Cir. 1984) (finding that neither §287 nor its predecessor provides an infringement defense, but rather operates only to limit damages); 5 Donald S. Chisum, Patents, §20.03[7], at 20-509 (1996) (“The only consequence of failure to mark is a limitation on recoverable damages for patent infringement.”).

⁴ Under a literal infringement analysis, first resort is to the language of the patented claim to determine if the accused apparatus falls within the claim language. See Graver Tank, 339 U.S. at 607. In this case, the parties dispute whether the sensors on Longwood’s original and retrofitted machines are located “in” the recess within the meaning of the claim. Wheelabrator maintains that the sensor is located “in” the recess, and therefore infringes, while Longwood argues that the sensor is “on” the recess, and thus avoids infringement. Since I find that Longwood’s machine infringes under the doctrine of equivalents, it is unnecessary to resolve the semantic dispute over the word “in” and the literal infringement determination that accompanies it.

was approved, it was twice denied for failure to distinguish itself from prior art. Relying on the patent prosecution history, Longwood argues that the location of the sensors “in” the recess persuaded the examiner to allow the claim. Longwood relies on the declaration of Geoff Kuter, one of the inventors, in his presentation to the patent examiner upon reconsideration of the patentability of ‘877. Kuter stated:

A unique arrangement is provided to control the ventilation system; and specifically, at least one temperature sensor is located in a recess in a frame of the composting bay to sense the temperature of the compost in the bay, and to actuate the ventilation system to conduct air into the compost when the temperature thereof rises above a preset level.

Kuter Decl. ¶ 5 (Aug. 19, 1987); see also Stipulation ¶ 17 (quoting Kuter). Kuter’s lawyer made similar interpretive remarks. See Sensny Reply, at 2 (Aug. 19, 1987) (commenting on Kuter’s declaration). Since the patent examiner based ‘877’s patentability solely on the explanation of the sensor as being located “in” the recess, Longwood maintains, the claim cannot encompass sensors located partly in and partly on the recess.

This argument misconstrues the patent prosecution history. First, the claim language “in the recess” was present in the initial ‘877 application. Kuter’s declaration, as well as his lawyer’s, merely interpreted the claim language to explain its patentability to the examiner; it did not alter the language, meaning or scope of the claim. Second, while it is true that the patent was approved only after two denials, what finally persuaded the examiner was not the distinction between “in” and “on” regarding the sensor location. Rather, the examiner was persuaded of the facility’s patentability because of his new understanding that prior art had counseled away from placing the sensor anywhere near the frame of the bay (much less within it). None of the prior art contained wall-

mounted sensors; prior art measured temperature either manually or from a sensor located *in the compost itself*. The ‘877 applicants cited two advantages in moving the temperature sensors to the frame of the bay: first, there the sensors more effectively and accurately measure the temperature; second, there the sensors no longer interfere with the movement of the compost within the bay. See Kuter Decl. ¶5. Thus, the crucial distinction for the patent examiner was not whether the sensor was “in” or “on” the frame of the bay, but rather whether the sensor was located along the side wall of the frame of the bay at all. Therefore, the prosecution history does not alter the analysis of the infringement issue here.

On infringement, the Supreme Court has said that when “two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.” Graver Tank, 339 U.S. at 608 (internal quotations omitted). The rationale behind the doctrine of equivalents is that “when there are no substantial differences between the claimed and accused products or processes, ‘they are the same’ in the eyes of the patent law.” Hilton Davis, 62 F.3d at 1528 (quoting Graver Tank, 339 U.S. at 608). “‘Mere colorable differences, or slight improvements, cannot shake the right of the original inventor.’” Id. at 1517 (quoting Odiorne v. Winkley, 18 F.Cas. 581, 582 (C.C.D. Mass. 1814) (No. 10,432) (Story, C.J.)). Thus, the focus is on the substantiality of the differences. See Graver Tank, 339 U.S. at 610 (framing the doctrine of equivalents issue as a question of whether the substitution in the accused product is sufficiently substantial); Hilton Davis, 62 F.3d at 1517 (same).

Here, Longwood’s retrofitted sensors are equivalent to both its original version as built and the patent; any changes are insubstantial. The significance of the patented sensor is that it is mounted along a wall in the frame of the bay, rather than located in the compost as prior art dictated.

Although Longwood has now located the sensor partially in and partially out of a recess of the frame, Longwood's sensor is still located on the frame of the bay, and serves the same function in the same way, monitoring the temperature of the compost and sending a signal to a controller when the temperature gets too hot. Longwood has suggested no unique function or reason for its modest changes, leaving me to conclude that they are inconsequential. Longwood's facility is not saved by merely shifting the sensor to a location less than an inch away from literal infringement.

As for the cover plate, the stipulated facts describe Longwood's retrofit as containing a "new cover plate . . . machined to define a groove in its inner surface." Stipulation ¶ 33. Although this inner surface groove brings the cover plate outside the literal language of the claim and permits the sensor to protrude beyond the recess, Longwood offers no purpose for this change, leaving the inference that the change is insubstantial. The "re-design" of the cover plate does not affect the fact that it is the patent claim's equivalent. It continues to serve the same function, protecting the sensor from the machine and the sludge. Slight changes or improvements by Longwood, absent substantial differences or reasons, do not strip Wheelabrator of its patent entitlements. See Hilton Davis, 62 F.3d at 1517. Therefore, I find that Longwood's sensors and cover plate infringe the '877 patent under the doctrine of equivalents.

IV. THE '196 PATENT

The '196 patent protects:

1. A compost handling machine, comprising . . .
a compost agitating assembly . . . the agitating assembly including
 - (i) spaced apart, left and right support arms . . .
 - (ii) an agitating drum rotatably connected to and laterally extending between the support arms, . . .
wherein each of the support arms is substantially solid, one of the support arms forms an elongated through opening longitudinally extending forward to a position laterally projecting inside the drum, and extending rearward to a position laterally projecting rearward of the drum; and said hydraulic fluid lines extend along an outside surface of said one of the support arms, through the elongated opening thereof to a position inside the drum . . .
the agitating assembly further including
 - (v) an outside cover plate covering the elongated through opening, and releasably connected to the one of the support arms, and
 - (vi) an inside cover plate covering at least a part of the elongated opening, said inside cover plate being located inside the elongated opening and permanently connected to the one of the support arms.⁵

Stipulation ¶ 14. The infringement issue here is the design of the arms for the agitation assembly and the cover plates.

A. Longwood's Original Facility

Longwood makes no argument regarding infringement by its original facility.⁶ According to the joint stipulation:

Each of the original turning machines installed at the LAWPCA had a rectangular opening in one of the support arms for passing hydraulic

⁵ Wheelabrator also alleges infringement of claims 2-4 of the '196 patent, all of which depend from claim 1. Again, the parties have addressed only the independent claim. See supra note 2.

⁶ See supra note 3.

lines into the rotating drum for connection to a hydraulic motor, a bolted-on outside cover plate covering the opening, and an inner cover plate connected to the support arm and located inside the opening.

Id. ¶ 34. Thus, Longwood's original structure is within the plain language of the claim and literally infringes the '196 patent.

B. Longwood's Retrofitted Facility

Longwood contends that its retrofitted facility does not infringe the '196 patent because (1) its current facility contains no elongated opening in any support arm with hydraulic lines passing through, and (2) the facility has neither a releasable outside cover plate nor a permanent inside cover plate over any elongated opening in any support arm.

1. Support Arm, Elongated Opening and Hydraulic Lines

If the elongated opening and hydraulic lines were the only issue, I would find infringement under the doctrine of equivalents. Longwood's retrofitted support arms are not new structures, but rather contain only insubstantial changes. The '196 patent describes support arms containing an elongated opening. The hydraulic lines pass outside the arms, through the elongated opening, eventually reaching the drum and motor. To avoid the literal language of '196, Longwood's retrofitted support arms have hydraulic fluid lines extending down the outside of the support arms, and through three holes rather than through an elongated opening. To achieve this inconsequential difference, Longwood merely masked its infringing elongated opening, through which the lines would otherwise feed, by covering it with a plate. This cover plate contains the three holes through which the hydraulic lines run to the drum and motor. Though the look is different, the effect is exactly the same: the hydraulic fluid lines pass first outside the arms and then through (three holes

in) the arms to the drum and motor. Longwood has not given any reason whatsoever for the change. Inconsequential changes with no purpose or function are not differences substantial enough to avoid infringement.

Wheelabrator, by contrast, proffers evidence of copying, which may be an indicator of infringement. “When an attempt to copy occurs, the fact-finder may infer that the copyst, presumably one of some skill in the art, has made a fair copy, with only insubstantial changes.” Hilton Davis, 62 F.3d at 1519. The stipulated record contains several facts that support an inference of copying. First, LAWPCA’s bid proposal specified that International Process Systems-equivalent technologies be used by whoever was awarded the bid. See Stipulation ¶ 25 (stating that LAWPCA’s proposal “specified that ‘Only technologies available from [IPS] . . . or equal are acceptable to [LAWPCA]’”). International Process Systems (“IPS”) was the original owner of the patents. In 1991, IPS merged with Wheelabrator, and Wheelabrator became the assignee-owner of the patents. LAWPCA’s “IPS-equivalent technology” criterion, therefore, effectively required that technology similar to Wheelabrator technology (namely, the ‘877 and ‘196 patents) be used. Second, since Longwood had previously manufactured IPS machines, see id. ¶¶ 7, 22, Longwood had experience making the machines covered by the Wheelabrator patents. Longwood has failed to show any evidence of independent development. See Graver Tank, 339 U.S. at 611-12 (finding that the fact-finder could infer copying from lack of evidence of independent development on the record); Hilton Davis, 62 F.3d at 1520 (“[T]he fact-finder must consider any evidence of independent development in a case where the patent owner alleges copying as probative of infringement under the doctrine of equivalents.”). Finally, Longwood had the opportunity to copy: two of the inventors of the ‘196 patent are now Longwood’s Chairman and President. See Stipulation ¶ 8. Although an

inference of copying “[does] not dominate the doctrine of equivalents analysis,” Hilton Davis, 62 F.3d at 1519, together with the insubstantial nature of the changes and Longwood’s failure to offer any reason for the changes, the copying inference justifies the conclusion that Longwood’s retrofit was simply an attempt to avoid literal infringement of ‘196. The doctrine of equivalents exists precisely to prevent infringers from circumventing the patent by making “unimportant and insubstantial changes and substitutions in the patent which . . . add[] nothing.” Graver Tank, 339 U.S. at 607.

2. Cover Plates

Longwood contends, however, that it has not infringed the ‘196 patent because its cover plates on the retrofit machine are substantially different from the description in ‘196. Specifically, Longwood argues that (1) its outside cover plate is no longer releasable and (2) it contains no inside cover plate, whereas the ‘196 patent describes a pair of cover plates: one releasable outside cover plate and one non-releasable inside cover plate. Longwood eliminated the inside cover plate altogether in the retrofitted machine. In addition, to make its only remaining cover plate—the outside one—“non-releasable,” Longwood fastened it by welding instead of bolting. Thus, Longwood has avoided literal infringement.

The result however, appears to be nothing more than the same machine with an inside plate missing and an outside plate welded shut. As discussed earlier, welding alone is not enough to avoid infringement under the doctrine of equivalents because the plate and arm still “do the same work in substantially the same way, and accomplish substantially the same result.” Id. at 608 (internal quotations omitted). See also Hilton Davis, 62 F.3d at 1528 (“[W]hen there are no substantial differences between the claimed and accused products or processes, ‘they are the same’ in the eyes

of the patent law.”). Moreover, Longwood offers no functional reason why the removal of the inside cover plate constitutes a substantial change. Omitting the inside cover plate for no apparent reason is hardly a change substantial enough to shield Longwood from infringement under the doctrine of equivalents.

The doctrine of file wrapper estoppel, however, ultimately protects Longwood from infringement of the ‘196 patent. Under this doctrine, also known as prosecution history estoppel, a patent owner in an infringement suit may not interpret its patent in a way that would “resurrect” subject matter surrendered during patent prosecution proceedings. See 5 Donald S. Chisum, Patents § 18.05, at 18-152-53 (1996). “To the extent it applies, file wrapper estoppel supersedes the doctrine of equivalents.” Id. at 18-153. Put another way, it limits the range of equivalents available to the patent owner. See Southwall Technologies, 54 F.3d at 1578. The classic case of file wrapper estoppel occurs “where the patent examiner rejects a broad claim as unpatentable over the prior art and in response the applicant cancels or amends the claims in order to narrow the scope of the claimed subject matter and thereby to secure issuance of a patent.” 5 Chisum § 18.05[2][a], at 18-158. By acquiescing to a narrowing amendment in order to obtain the patent, the patentee has, in effect, abandoned forever the prior broader claim. See Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126, 136 (1942) (“By the amendment [the patentee] recognized and emphasized the difference between the two [forms of the claim] and proclaimed his abandonment of all that is embraced in that difference.”).

Claim 1 of the ‘196 patent is the product of several applications and amendments. The original language of claim 1 described an agitating machine with support arms forming an elongated opening and a releasable outside cover plate, along with the other elements present in the final

patent; there was no reference to the inside cover plate. Along with independent claim 1, the patent application contained several dependent claims, including claim 3, which proposed:

3. A compost handling machine according to Claim 2 [which depends on Claim 1], wherein:
the agitating assembly further includes an inside cover plate covering at least a part of the elongated opening; and
the inside cover plate is located inside the elongated opening and is permanently connected to the one of the support arms.

Id. at 35-36. The patent examiner rejected claim 1 as unpatentable due to prior art, stating that the patent application failed for lack of novelty and for obviousness based upon a prior invention. The examiner rejected claim 3 only because it rested entirely on claim 1, which had been rejected: “Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” Action of Nov. 29, 1991 ¶ C, at 3. The examiner never explained what it was about claim 3 that was novel or justified the award of a patent when claim 1 was insufficient.⁷ All claim 3 contained beyond claim 1 was the permanently connected inside cover plate. Taking the examiner’s advice, however, the patentee collapsed claim 3 into claim 1, and secured the patent. ~~The patent~~ prosecution history, then, creates an anomalous result. Although the file wrapper nowhere discusses the significance of the inside cover plate, ‘196 would not have issued without it. Because the patent

⁷ The complete absence of any explanation by the examiner is troublesome since the doctrine of file wrapper estoppel “turns on the *reasons* for claim amendments during prosecution.” Hilton Davis, 62 F.3d at 1528 (emphasis added). See also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 72 F.3d 857, 864 (Fed. Cir. 1995) (“[I]n determining whether prosecution history estoppel applies when there has been a change in claim language during prosecution, the court must consider *both what was changed and the reason for the change.*”) (emphasis added); Insta-Foam Prods., Inc. v. Universal Foam Sys., Inc., 906 F.2d 698, 703 (Fed. Cir. 1990) (“Whenever prosecution history estoppel is invoked as a limitation to infringement under the doctrine of equivalents, ‘a close examination must be made as to, not only what was surrendered *but also the reason for such a surrender.*’” (emphasis added) (quoting Bayer Aktiengesellschaft v. Duphar Int’l Research B.V., 738 F.2d 1237, 1243 (Fed. Cir. 1984)). Nonetheless, I am bound by the file wrapper; in evaluating file wrapper estoppel, “it is immaterial whether the examiner was right or wrong.” Exhibit Supply, 315 U.S. at 137. See also 5 Chisum § 18.05[2][a], at 18-159 (same).

was consistently disallowed until the inside cover plate was incorporated into claim 1, I must conclude that the inside cover plate *is* the novel and non-obvious invention: without it the patent would not exist.

This case, therefore, is a classic illustration of file wrapper estoppel. To gain the patent, the patentee acquiesced to the PTO condition that it add the inside cover plate language. If the patentee felt that this requirement was not justified, and that the invention did not depend on the presence of the inside cover plate, the patentee should have appealed the examiner's decision. Having acquiesced, the patentee abandoned its broader claim and cannot resurrect it under the doctrine of equivalents. See Southwall Technologies, 54 F.3d at 1579 (“The doctrine of equivalents . . . is not a tool for expanding the protection of a patent after examination has been completed.”). Since Longwood has now omitted the inside cover plate, its machine is necessarily within the prior art, and therefore does not infringe the patent even under the doctrine of equivalents.⁸

V. AVAILABILITY OF DAMAGES

⁸ Wheelabrator's briefing on this issue is unhelpful. Its entire argument on the retrofit's infringement of '196 under the doctrine of equivalents is contained in one paragraph of its brief, with its argument as to the inside cover plate comprising only a sentence. I cite Wheelabrator's argument, in full, with emphasis on its conclusory brevity:

The changes to the Lewiston-Auburn support arms, an effort to avoid the '196 claims, are likewise insubstantial. It may have been different if Longwood had replaced the support arms with ones that never had the elongated opening through which the hydraulic lines are fed. *However, Longwood closed the opening with a plate that still reads on the inside cover plate of claim 1 of the '196 patent.* Also, Longwood welded the outer cover plate on the support arm instead of using bolts, but this is hardly a real distinction. Anyone who has had a muffler replaced knows that welded structures can be detached.

Mem. in Supp. of Pl. Wheelabrator's Cross-Mot. for Summ. J. on the Issue of Patent Infringement; and Rep. to Def.'s Mot., at 18-19.

Although I have found infringement of ‘877 in both LAWPCA designs and infringement of ‘196 in the original design, a finding of infringement alone does not guarantee damage recovery. Specifically, the Patent Act precludes damages for infringement unless the patentee has complied with the “marking requirement” of 35 U.S.C. § 287(a) or given actual notice of infringement.⁹ Under § 287(a):

Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them . . . may give notice to the public that the same is patented, either by fixing thereon the word ‘patent’ or abbreviation ‘pat.’, together with the number of the patent, or when, from the character of the article this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.

35 U.S.C. § 287(a).

Longwood claims that damages cannot accrue before December 27, 1995, the date on which Wheelabrator filed its infringement suit because (1) Wheelabrator failed to mark its product; and (2) the complaint was Longwood’s first notice of the patent and infringement under section 287. Wheelabrator does not argue that its products were marked.¹⁰ Rather, Wheelabrator relies on

⁹ Wheelabrator contends that Longwood waived this defense for failure to raise it in its answer. While it is true that Longwood did not originally assert its § 287 defense, Wheelabrator has shown no prejudice and a motion to amend can be entertained at any time. See Fed. R. Civ. Pro. 15. Therefore, I permit the late defense to be raised.

¹⁰ In its briefs, Wheelabrator does attempt to argue that it is not subject to the marking provision because its compost facilities are too large to be practicably marked. Although Wheelabrator cites cases that recognize forms of alternative marking, there is no suggestion in the case law that an object’s large size exempts the patent owner from § 287. It is possible, as Wheelabrator suggests, that the marking on the compost facility, if made, would not be seen by everyone at every point in time, but that alone does not avoid the need to mark as a prerequisite to damages. The only
(continued...)

Longwood's independent knowledge of the patents to satisfy the notice requirement. Specifically, Wheelabrator alleges that, to the extent § 287 is concerned with notice, Longwood knew of the patents by virtue of Longwood's bidding package to LAWPCA, which recognized patent issues. Wheelabrator further points out that Longwood personnel are past employees of Wheelabrator's predecessor, IPS, and thereby had knowledge of the patents. The thrust of the marking requirement is notice. See American Medical Sys., Inc. v. Medical Eng'g Corp., 6 F.3d 1523, 1538 (Fed. Cir. 1993) (stating that the purpose of section 287(a) is "to encourage the patentee to give notice to the public of the patent"). Section 287 provides two avenues for establishing notice: constructive notice and actual notice. First, when the patentee affixes the word "patent" (or its abbreviation, "pat.") and the patent number to the product, the public is put on constructive notice of the patent. Second, the patentee may, regardless of failure to mark the product, give actual notice of infringement to a potential infringer. In Amsted Indus., Inc. v. Buckeye Steel Castings Co., 24 F.3d 178 (Fed. Cir. 1994), the Federal Circuit determined that "[f]or purposes of section 287(a), notice must be of 'the infringement,' not merely notice of the patent's existence or ownership. Actual notice requires the affirmative communication of a specific charge of infringement by a specific accused product or device." Id. at 187. See also 5 Chisum, § 20.03[7](c)[iv], at 20-523 (requiring that "the patent owner give specific and actual notice to the accused infringer charging infringement" in order to satisfy section 287). In interpreting section 287, the Federal Circuit noted that the requirements of patent notice, as inspired by the Supreme Court, are a century old:

¹⁰ (...continued)
other exemptions from § 287, for products never made and for process patents, do not apply. Therefore, I reject Wheelabrator's argument that § 287 is inapplicable.

The Supreme Court in Dunlap v. Schofield, 152 U.S. 244 (1894), held that the ‘clear meaning’ of [the notice requirement in § 287’s predecessor statute] is that a patentee cannot recover damages absent marking or notice to the ‘particular defendants by informing them of his patent *and of their infringement of it.*’ The Court further stated that notice ‘is an affirmative act, and something to be done by him.’ Dunlap thus established that notice must be an affirmative act on the part of the patentee which informs the defendant of his infringement. We regard Dunlap as highly persuasive, if not controlling, on the meaning of the notice requirement of section 287.

Amsted, 24 F.3d at 186-87 (citations and footnotes omitted). Under Amsted and Dunlap, the infringer’s independent knowledge of the patents is irrelevant to notice: section 287 requires an affirmative act *by the patentee* to notify the infringer of both the patent *and the alleged infringement*. See 5 Chisum, § 20.03[7](c)[iv], at 20-523-24 (“It is not usually sufficient that the infringer had actual knowledge of the patent.”).

Wheelabrator gave no such notice to Longwood, and therefore did not satisfy § 287(a), until the filing of its infringement suit on December 27, 1995. Consequently, Wheelabrator may not collect damages for infringement before that date.

VI. CONCLUSION

I find that Longwood’s original facility literally infringed both patents, and that its current retrofitted facility infringes ‘877, but not ‘196, under the doctrine of equivalents. Due to Wheelabrator’s failure to satisfy the marking requirement except by filing an infringement suit, however, damages are unavailable to Wheelabrator for any infringement before December 27, 1995.

The Clerk’s Office shall schedule this matter for a final pretrial conference so that the remaining issues may be better defined and set for jury trial.

SO ORDERED.

DATED THIS 18TH DAY OF DECEMBER, 1996.

D. BROCK HORNBY
UNITED STATES CHIEF DISTRICT JUDGE