

DOWD, J.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF OHIO  
EASTERN DIVISION

Hy-Ko Products Company, et al.,	)	CASE NO. 5:08 CV 1961
	)	
Plaintiffs,	)	
	)	<u>MEMORANDUM OPINION AND</u>
v.	)	<u>ORDER</u>
	)	
The Hillman Group, Inc.,	)	
	)	
Defendant.	)	

In this patent action, plaintiffs Hy-Ko Products Company (Hy-Ko) and Aurora Properties Holding Company, LLC (Aurora) seek declaratory judgment that U.S. Patent Nos. 6,064,747 (the ‘747 Patent)<sup>1</sup> and 7,114,894 (the ‘894 Patent),<sup>2</sup> both owned by defendant Hillman Group, Inc., (Hillman), are invalid and unenforceable as a matter of law, and that plaintiffs do not infringe any valid claim of either patent. ECF 37. Hillman’s four count counterclaim asserts that both Hy-Ko and Aurora infringe the ‘747 and ‘894 Patents. ECF 38.

Presently before the Court is Hillman’s motion to strike the report of plaintiffs’ expert, Robert Sturges, on the invalidity of the ‘894 Patent on the grounds that it is legally deficient. ECF 194. Hillman’s motion has been fully briefed.<sup>3</sup> The Court has examined the parties’ briefs and concluded that the issues raised by Hillman go to the weight and credibility of Sturges’ opinion, which is a matter for cross-examination at trial. Accordingly, Hillman’s motion to

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<sup>1</sup> The ‘747 Patent claims a method and apparatus for using light to identify a key for duplication.

<sup>2</sup> The ‘894 Patent claims a key cutting machine for key duplication.

<sup>3</sup> See ECF 201, 204 and 213.

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strike the report of Hy-Ko's expert, Robert Sturges, on the invalidity of the '894 Patent on the grounds that it is legally deficient (ECF 194), is DENIED.

Also pending before the Court is Aurora's motion for summary judgment<sup>4</sup> as follows:

1. The '894 Patent is invalid because it was obvious under 35 U.S.C. § 103;
2. The '894 Patent is invalid for lack of an adequate written description under 35 U.S.C. § 112;
3. The '747 Patent is invalid because it was anticipated under 35 U.S.C. § 102;
4. The '747 Patent is invalid because it was obvious under 35 U.S.C. § 103; and
5. The '747 Patent is invalid under 35 U.S.C. § 112 because it claims more than was invented.

Hillman opposed Aurora's motion (ECF 251), and Aurora replied (ECF 258).

For the reasons contained herein, Aurora's motion for summary judgment that the '747 and '894 Patents are invalid as a matter of law is DENIED.

#### I. BACKGROUND

According to plaintiffs' second amended complaint, plaintiff Hy-Ko supplies numbers, letters, sign, keys and accessories to the retail marketplace, including buying cooperatives, home centers, and mass merchants. The Hy-Ko products at issue in this case are key cutting devices which duplicate keys for consumers, known as model KZA-100 and KZA-200 (collectively, KZA devices). There are approximately 116 KZA devices in the marketplace. Plaintiff Aurora is a limited liability company that owns the KZA devices, which are leased to Hy-Ko.

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<sup>4</sup> ECF 242.

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Defendant Hillman is also a supplier to the retail marketplace of keys and accessories, as well as hardware and other products. Hillman owns the '894 Patent and the '747 Patent, which Hillman claims are infringed by the KZA devices.

This patent dispute originated with a complaint for infringement filed by Hillman against Hy-Ko in the U.S. District Court in Arizona. After various procedural issues related to the Arizona case which are not relevant to the motion before the Court, this action was filed by Hy-Ko in the Northern District of Ohio. The original complaint was followed by two amended complaints. In its second amended complaint (ECF 37), Hy-Ko and Aurora seek a declaration from this Court that the KZA devices do not infringe the '894 and 747 Patents (Counts 1 and 2) and that the '894 and '747 Patents are invalid for failure to comply with one or more of the requirements of 35 U.S.C. § 102, 103 and 112 (Counts 3 and 4). Hillman responded with a four count counterclaim (two counts each against Hy-Ko and Aurora) alleging that the KZA devices infringe both the '894 and '747 Patents. ECF 38.

The case management and procedural issues in this case have been complex and lengthy. The Court ultimately issued its Claims Construction Opinion and Order (ECF 180), and this case moved to the dispositive motion stage.

In addition to Aurora's motion for summary judgment on the issue of invalidity which is the subject of this memorandum opinion, Hy-Ko and Hillman also filed cross motions for summary judgment on the issue of infringement. Those motions are the subject of a separate order.

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## II. LAW

### A. Rule 56 Summary Judgment Standard

Summary judgment is appropriate when there is no genuine dispute as to any material fact and the moving party is entitled to judgment as a matter of law. Fed.R.Civ.P. 56(a).

When considering a motion for summary judgment, “the inferences to be drawn from the underlying facts contained in [affidavits, pleadings, depositions, answers to interrogatories, and admissions] must be viewed in the light most favorable to the party opposing the motion.” *U.S. v. Diebold, Inc.*, 369 U.S. 654, 655 (1962). However, the adverse party “may not rest upon mere allegation or denials of his pleading, but must set forth specific facts showing that there is a genuine issue for trial.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 256 (1986).

The threshold inquiry for the Court is whether there is the need for a trial; that is, whether there is a genuine dispute as to any material fact that can be resolved only by a finder of fact because the dispute may reasonably be resolved in favor of either party. *Anderson v. Liberty Lobby*, 477 U.S. at 250. Put another way, this Court must determine “whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law.” *Id.* at 251-52. *See also Wexler v. White’s Fine Furniture, Inc.*, 317 F.3d 564, 578 (6th Cir. 2003) (“[t]he conflicting proof and the inferences that can be drawn therefrom raise genuine issues of material fact that preclude the grant of summary judgment”).

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B. Patent Validity

In the motion presently before the Court, Aurora asks the Court to rule that the '894 and '747 Patents are invalid as a matter of law. In order to be valid, a patent must meet all the requirements of patentability. 35 U.S.C. § 282. The three requirements of patentability relevant to this litigation are anticipation (35 U.S.C. § 102), nonobviousness (35 U.S.C. § 103), and an adequate description of the claimed inventions and definiteness (35 U.S.C. § 112).

An issued patent is presumed valid, and the party seeking to invalidate an issued patent bears the burden of proving invalidity by clear and convincing evidence. *Impax Labs., Inc. v. Aventis Pharms., Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008); *Minnesota Min. & Mfg. v. Chemque, Inc.*, 303 F.3d 1294, 1301 (Fed. Cir. 2002). “The ‘presumption of validity of an issued patent under 35 U.S.C. § 282 carries with it a presumption that the Examiner did his duty and knew what claims he was allowing.’” *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) (quoting *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1054 (Fed. Cir. 1989)). When during the patent examination process the examiner has considered the issues and prior art now advanced to support invalidity, the burden of proving invalidity is particularly heavy. *Impax Labs., Inc. v. Aventis Pharms., Inc.*, 545 F.3d at 1314. The ultimate question of patent validity is a matter of law reserved for the Court.

1. Section 102 - Anticipation

In order to be entitled to a patent, a claimed invention must be novel. 35 U.S.C. § 102. Patent invalidity based on lack of novelty is often referred to as anticipation.

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“A claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference. . . . Also, the reference must ‘enable one of ordinary skill in the art to make the invention without undue experimentation.’” *Whitserve v. Computer Packages, Inc.*, ---F.3d ---- , 2012 WL 3573845 at \*5 (quoting *Celeritas Techs., Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998) and *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009)). That is, the prior art must enable the claimed invention. *Impax Laboratories, Inc.*, 545 F.3d at 1314. While the ultimate question of patent validity is a question of law, whether a prior art reference anticipates the patent at issue is a question of fact, and a genuine dispute as to any material fact precludes summary judgment with respect to anticipation. *Koninklijke Philips Electronics N.V. v. Cardiac Science Operating Co.*, 590 F.3d 1326, 1333-34 (Fed. Cir. 2010) (citing *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F. 3d 1317, 1332 (Fed. Cir. 2009)); *Whitserve v. Computer Packages, Inc.*, ---F.3d ---- , 2012 WL 3573845 at \*5.

2. Section 103 - Obviousness

35 U.S.C. 103(a) provides that a patent may not be obtained if the claimed invention would have been obvious to a person of ordinary skill in the art.<sup>5</sup> A patent which is determined to be obvious is not valid.

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<sup>5</sup> 35 U.S.C. 103(a):

**(a)** A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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While obviousness is ultimately a legal determination, that determination is based on the four factual inquiries set forth in *Graham v. John Deere Co.*,<sup>6</sup> which are as follows:

1) scope and content of the prior art; 2) level of ordinary skill in the art; 3) differences between the prior art and the claims at issue; and 4) secondary considerations. What a particular reference discloses, and whether there was a reason to combine certain references, are questions of fact. *TransOcean Offshore Deepwater Drilling, Inc. v. Maersk Contractors*, 617 F.3d 1296, 1303 (Fed. Cir. 2010). Also a question of fact is whether prior art teaches away from a claimed invention. *Apple, Inc. v. Samsung Electronics, Co.*, 2012 WL 2571719 at \*18 (N.D. Cal. June 30, 2012). When the *Graham* factors are not in dispute, summary judgment is appropriate. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 427 (2007).

3. Section 112

35 U.S.C. § 112 provides in its entirety as follows:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of

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<sup>6</sup> 383 U.S. 1, 17-18 (1966)

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the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

*a. Written description*

The first paragraph of § 112 requires that the specification contain a written description of the claimed invention. The written description must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed, in other words, the disclosure of the application must reasonably convey to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). The level of detail required to satisfy the written description requirement depends upon the nature and scope of the claims. This inquiry is a question of fact. *Id.*

*b. Definiteness*

The second paragraph of § 112 requires that the patentee distinctly claim the invention. “[T]he purpose of the definiteness requirement is to ensure that the claims delineate the scope of the invention using language that adequately notifies the public of the patentee’s right to exclude.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir.



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2005). The definiteness requirement does not require absolute clarity, only that the terms at issue can be given reasonable meaning. A claim is not invalid when one of ordinary skill in the art can understand what is claimed. *Id.*; *Energizer Holdings, Inc. v. International Trade Commission*, 435 F.3d 1366, 1369 (Fed. Cir. 2006).

Indefiniteness is a legal determination related to the court's performance of its duty to construe patent claims. *BJ Servs. Co. v. Halliburton Energy Servs.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003). "A claim that is amenable to construction is not invalid on the grounds of indefiniteness." *Energizer Holdings, Inc.*, 435 F.3d at 1371.

### III. AURORA'S MOTION FOR SUMMARY JUDGMENT

#### A. The '894 Patent

Aurora contends in its motion for summary judgment that the '894 Patent is invalid because it is obvious under 35 U.S.C. § 103, and because it lacks an adequate written description as required by 35 U.S.C. § 112.

#### 1. 35 U.S.C. § 103

##### *a. Aurora's argument*

In support of its position that the '894 Patent is invalid for obviousness, Aurora argues that two pieces of prior art, U.S. 5,660,509 (the '509 Patent) and German Patent DE 2,951,065 (the '065 Patent), taken together, "literally teach each element of the asserted claims,"<sup>7</sup> rendering the '894 Patent obvious to one of ordinary skill in the art and therefore invalid under

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<sup>7</sup> The '894 Patent claim numbers 24, 28, 29, 31, 38, 70, 74 and 81.

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§ 103(a). Specifically, Aurora argues that both the ‘509 and ‘065 Patents are pertinent prior art and disclose key cutting machines that have two cutting heads moving at the same time for cutting two-sided keys, the only difference between the two machines being that the ‘509 Patent teaches a manual tracer mechanism while the ‘065 Patent teaches computer controlled motors for moving the cutting heads. The ‘509 Patent was before the patent examiner during the prosecution of the ‘894 Patent, who found that the ‘509 Patent disclosed every element of claims 24 and 70 except for “active lateral movement.” Aurora contends that “active lateral movement,” i.e. automation, is taught by the ‘065 Patent but was not before the examiner.

According to Aurora’s expert, Robert Sturges, combining the dual cutting head of the ‘509 Patent with the automated control of the ‘065 Patent, is a simple combination of known components that would have been obvious to a person of ordinary skill in the art at the time of the ‘894 Patent, and is therefore obvious under § 103(a). *See* 242-2 at page 13 of 37, citing the Sturges Dec. ¶¶ 22, 23, 28-31.

Further in support of the obviousness argument, Aurora cites the declaration of Dick Ryai, a co-inventor of the ‘059 Patent. According to Ryai, only common engineering skills would be required to replace the manual tracer mechanism of the ‘059 Patent with the servo motor system of the ‘065 Patent. Ryai Dec. ¶ 17.

Aurora also cites the deposition of Warren Stansberry, a co-inventor of the ‘894 Patent, at pp. 53:17-54 for the proposition that the combining the ‘509 and ‘065 Patents to automate the ‘509 Patent would have been “easy” to engineer.

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Lastly, advances the case of *Leapfrog Enters. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161-63 (Fed. Cir. 2007) for the proposition that mere automation of a prior art mechanical device is obvious.

*b. Hillman's opposition*

In opposing Aurora's motion for summary judgment as to invalidity of the '894 Patent, Hillman disputes the scope, content and teachings of the prior art, whether the prior art can actually be combined as suggested by Aurora, and factual statements asserted by Aurora in support of its motion. Hillman's arguments are summarized below.

First, Hillman disputes Aurora's argument that the '065 Patent, was not before the patent examiner. According to Hillman's expert, Frank Fronczak, U.S. Patent 5,676,504 (the '504 Patent) was before the examiner, and the '504 Patent expressly discussed the '065 Patent in a reference.<sup>8</sup> In addition to arguing that the '065 Patent was known to the examiner due to its reference in the '504 Patent, Hillman also points out that another patent which taught active cutting heads was also before the examiner - U.S. Patent 6,588, 995.<sup>9</sup> On this basis, Hillman concludes that the examiner was well aware of prior art teaching active cutting heads when the '894 Patent's claims were allowed, and disputes Aurora's contention that the examiner allowed those claims in the absence of prior art which would have rendered the '894 Patent obvious.

Hillman next disputes Aurora's characterization of the testimony of Warren Stansberry. According to Aurora, Stansberry testified that the addition of a stepper motor to the manual

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<sup>8</sup> Frank Fronczak Dec. ¶¶ 34-36.

<sup>9</sup> Fronczak Dec. ¶¶ 37-39.

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tracer would have been “pretty easy to do.” Hillman points out that Stansberry actually declined to make that statement and in any event, Stansberry’s assessment of what he might be able to do is not relevant to the obviousness analysis because Stansberry is far more experienced than one of ordinary skill in the art.<sup>10</sup>

Third, Hillman disputes the opinion of Aurora’s expert, Dr. Sturges, that a person of ordinary skill in the art would have found it obvious to combine the ‘509 Patent and ‘065 Patent to achieve the ‘894 Patent. In forming his opinion, Sturges “reviewed and relied upon the testimony of one of the co-inventors of the ‘894 Patent Warren Stansberry on this point . . . and Mr. Stansberry confirmed that it would have been “pretty easy” for him to take a tracer machine and connect a stepper motor to it . . . .” Sturges Dec. ¶ 21. Hillman concludes that Sturges’ opinion as to obviousness of the ‘894 Patent is flawed because it relied upon mischaracterized testimony.

Hillman further attacks the opinion of Sturges that the ‘894 Patent was obvious by arguing that Sturges’ opinion and the declaration of Richard Ryai, an inventor of the ‘509 Patent, are inconsistent. Ryai declares that while he was developing the ‘509 Patent “we were focused on developing a mechanism that would create the notches using a tracing mechanism to create lateral movement rather than using a computer/servo motor controlled system,” but Ryai was aware that another team was working on developing an electronic “trace” or [notch] pattern “that could be followed by a computer/servo motor controlled system” and that it would have been

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<sup>10</sup> Warren Stansberry is an engineer with over 30 years of engineering experience. The parties have agreed that one of ordinary skill in the art is an engineer with 2-3 years of experience. *See* ECF 242-2 footnote 1 and ECF 251 footnote 3.

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“straight-forward for me to replace the tracer mechanism of the ‘509 Patent with a computer/servo motor controlled system for causing lateral motion of the cutting heads to create notches in the key blanks.” Ryai Dec. ¶¶ 16-17. Hillman argues that despite this knowledge, however, Ryai did not combine these technologies while developing the ‘509 Patent, which Sturges declares a person of ordinary skill in the art would have “motivated” to do (Sturges Dec. ¶¶ 20 and 20), thereby, according to Hillman, further calling into question Sturges’ opinion that the ‘894 Patent was obvious in light of the ‘509 Patent and the ‘065 Patent.

In addition to Hillman’s challenges to the evidence advanced by Aurora in support of its motion with respect to the ‘894 Patent, Hillman advances its own evidence and arguments in support of its position that Aurora’s motion for summary judgment should be denied as follows:

i) the ‘509 Patent teaches away from combining with the ‘065 Patent; ii) combining the ‘509 Patent with the ‘065 Patent renders the ‘509 machine inoperable; and iii) neither the ‘509 Patent nor the ‘065 Patent, alone or in combination, disclosed the claimed feature of the ‘894 Patent of suspending the clamp from the top frame of the housing as recited in claims 38 and 81.

First, Hillman argues that the ‘509 Patent actually “teaches away” from the ‘894 Patent and is a fatal flaw to Aurora’s obviousness argument. Specifically, Hillman offers the opinion of its expert that the ‘509 Patent teaches to separate the drive motors from the location of the cutting heads in order to prevent the accumulation of chips from the key cutting process from accumulating on components which actuate the cutter assembly. Fronczak Dec. ¶¶ 22-26.

Combining the computer controlled motors of the ‘065 Patent with the ‘509 Patent, which

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Aurora argues is obvious, would place the motors in a location subject to chip accumulation, contrary to the teachings of the '509 Patent. *Id.*

Second, Hillman's expert opines that combining the '065 Patent with the '509 Patent is not a simple straightforward substitution of parts as Aurora's experts contend, but would require significant reworking of the '509 device. Fronczak Dec. ¶¶ 27-32. Further in support of this position, Hillman advances the testimony of Aurora's own expert that this reworking would involve removing at least a dozen parts from the '509 Patent. Sturges Dep. Tr. pp. 191-196.

Third, the parties' experts dispute the interpretation of the patents at issue as to the location of the clamp.

*c. The Court's Ruling*

In order to conclude that the '894 Patent is invalid for obviousness on summary judgment, the Court must first find that there are no genuine dispute as to the *Graham* factors, and that the analysis of those factors result in a legal conclusion that the '894 Patent is invalid as a matter of law. This the Court cannot do.

As evident from the Court's discussion, *supra*, regarding the parties' respective positions as to the validity of the '894 Patent, their experts dispute the scope and content of the relevant prior art, whether that art teaches away or toward the '894 invention, whether the prior art can be combined in the manner Aurora suggests so as to render the '894 invention obvious, and whether such combination is a simple substitution.<sup>11</sup> These disputes regarding the *Graham* factors, which

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<sup>11</sup> In its opposition brief, Hillman also challenged the translation of the '065 German Patent. The Court does not address Hillman's challenge because it is not necessary to do so for the Court to rule on Aurora's summary judgment motion.

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are questions of fact, are at the heart of the invalidity analysis, and could reasonably be resolved by a fact finder in favor of either party.

With respect to Aurora's contention that *Leapfrog* holds that mere automation is obvious under § 1-3, the Court has examined that case and concludes that *Leapfrog* does not stand for that proposition, and that the facts of *Leapfrog* are distinguishable from the instant case.

As a consequence, the invalidity of the '894 Patent with respect to the asserted claims cannot be resolved as a matter of law on summary judgment.

2. 35 U.S.C. § 112

*a. Aurora's argument*

Aurora's contention that the '894 Patent is invalid under § 112 is grounded in the term "front end." Aurora argues that the '894 Patent fails to distinctly claim "front end" and therefore violates § 112. It is Aurora's position that claim 24 claims a machine, and "front end" must be a structure. However, claim 24 only describes "front end" with the functional language: "configured to longitudinally receive the key blank." Aurora points out that the "front end" is not defined by the '894 Patent as a structure, and what comprises "front end" is not identifiable. Further in support of its position that "front end" is not a definable structure, Aurora cites the deposition testimony of Hillman's witness and expert, George Heredia and Frank Fronczak,

Aurora concludes that the "front end" is undefinable as a structure and at best a location or view which is described only by the functional language "to longitudinally receive the key blank." Aurora argues that this description is improperly vague and indefinite because it provides no limit on what this description might cover - e.g, it could describe a drawer. As a

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consequence, Aurora concludes that the location of “front end” is a “matter of subjective guesswork” and, because that claim term is “dependent upon a person’s subjective opinion,” the asserted claims of the ‘894 patent are invalid under § 112.

*b. Hillman’s opposition*

Hillman opposes Hy-Ko’s § 112 attack on the validity of the ‘894 Patent on multiple grounds. First, Hillman argues that Hy-Ko did not identify indefiniteness of the term “front end” as a problem during the claims construction process. In fact, Hillman points out that Aurora proposed<sup>12</sup> a construction similar to Hillman’s proposed construction, and that the Court

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<sup>12</sup> Hillman points out that Aurora’s own expert, Sturges, did not find the term indefinite and clearly understood the meaning of “front end” in claim 24 as demonstrated by his claim construction expert report:

5. I have been asked to consider Hy-Ko's Initial Invalidity Contentions and to determine the scope of certain claim language used in the '894 patent, as detailed in Exhibit 3.
6. Upon careful review of the file history, claims and specifications of the '894 patent, I find that the following definitions accurately apply from an engineering perspective.
7. In general, I find that the "plain and ordinary meaning to one of ordinary skill in the art" to apply unless specifically noted otherwise. In this case, one of ordinary skill in the art is a person with a Bachelor's degree in mechanical engineering or at least 5 years experience in the design and construction of electromechanical systems.
8. Focusing on Claim 24, "a front end" means the portion of the machine housing facing the user for key insertion; synonym: front face. For example, as shown in Figures 1 and 3 [of the ‘894 Patent].

Sturges Claim Construction Expert Report, ¶¶ 5-8.



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construed the term to mean: the portion of the machine facing the user for key blank insertion configured to permit a key blank to enter tip first in a lengthwise orientation.<sup>13</sup>

Hillman further points to Sturges' expert report regarding the validity of the '894 Patent, in which Dr. Sturges states that the '509 Patent discloses a "front end configured to longitudinally receive the key blank inserted therethrough," and identified the "front end" both in the '894 Patent and the prior art '509 Patent. Sturges Validity Expert Report ¶¶ 90-94. Aurora's expert Ryai also could identify the "front end" on the Hy-Ko machines allegedly infringing the '894 Patent in this case.

In addition to arguing the "front end" is not hopelessly vague because it is identifiable by Aurora's experts, Hillman advances the testimony of its own expert, Frank Fronczak, who identified the portion of the machine in the '894 Patent configured to receive the key blank.

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<sup>13</sup> "1. **front end** configured to **longitudinally receive the key blank inserted therethrough**

a. Hy-Ko's Construction: (i) **front end** - "the portion of the machine facing the user for key blank insertion"; (ii) **longitudinally receive the key blank inserted therethrough** - "a key blank is inserted tip first into the machine with the insertion direction constrained along the lengthwise axis of the key blank blade such that the insertion direction is substantially perpendicular to the front face of the machine and the key blank is positioned for cutting"

b. Hillman's Construction: "a portion of the machine intended to face the user that is configured to permit a key blank to enter in a lengthwise orientation"

c. Court's Construction and Ruling: the portion of the machine facing the user for key blank insertion configured to permit a key blank to enter tip first in a lengthwise orientation." ECF 180 p. 18 of 32.

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Fronczak Dep. Tr. pp. 234-235. Hillman's George Heredia also the front end as having an opening for key insertion.

*c. The Court's Ruling*

During the claims construction process, both sides proposed very similar language with respect to the construction of "front end" and the Court construed the term without difficulty. Further, the record before the Court reflects that the meaning of "front end" is understood by the parties' witnesses who are experienced in the field of the invention, both with respect to the '894 Patent, the prior art, and the allegedly infringing KZA devices indicates that the meaning of "front end" is not hopelessly vague. A term is not indefinite when its meaning can be understood by persons experienced in the field and it is capable of construction.

Accordingly, the Court concludes that Aurora has not met its burden of establishing by clear and convincing evidence that the asserted claims of the '894 Patent are invalid because "front end" is indefinite, and therefore summary judgment is not appropriate on that basis.

**B. The '747 Patent**

Aurora contends that '747 Patent is invalid because it is anticipated under 35 U.S.C. § 102, obvious under 35 U.S.C. § 103, and invalid under 35 U.S.C. § 112 because it claims more than was invented.

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1. 35 U.S.C. § 102

*a. Aurora's argument*

Aurora advances several arguments in support of its position that claims 44, 49 and 60 of the '747 Patent is anticipated by the Almlad Patent,<sup>14</sup> and therefore invalid under § 102: i) "the [patent] examiner apparently did not appreciate the broad scope" of claims 44, 49 and 60, which were added at the "last-minute" and "he allowed them to issue by relying solely on Hillman's statements as to their scope." ECF 242-2, p. 24 of 37; and ii) the Almlad Patent discloses each and every element of claims 44, 49 and 60 of the '747 Patent, specifically the housing, slidable support, identification system, electric camera, and the device and method for identifying the key. In support of these arguments, Aurora advances portions of the file wrapper and the declaration of Aurora's expert, Dr. DiEuliis.

*b. Hillman's opposition*

In opposition to Aurora's motion for summary judgment that the '747 Patent is invalid because it is anticipated by the Almlad Patent, Hillman first argues that the Almlad Patent was before the patent examiner during the patent examination process and that the presumption of validity of an issued patent includes a presumption that the examiner fully considered the prior art.<sup>15</sup> Second, Hillman points out that Aurora's argument that the Almlad

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<sup>14</sup> U.S. Patent No. 5,807,042 entitled *Method and Apparatus for Automatically Making Keys* (the '042 Patent).

<sup>15</sup> "The 'presumption of validity of an issued patent under 35 U.S.C. § 282 carries with it a presumption that the Examiner did his duty and knew what claims he was allowing.'" *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) (quoting *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1054 (Fed. Cir. 1989)).

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Patent anticipates the '747 Patent is based on *inherent* anticipation, which requires that the prior art disclosures must *necessarily* include the limitation at issue, which the Almlad Patent does not do. ECF 251, pp. 30 of 39 (citing *Therasense, Inc. v. Becton, Dickinson and Co.*, 593 F.3d 1325, 1332-33 (Fed. Cir. 2010)).

In addition, Hillman's expert disputes Aurora's interpretation of the teachings of the Almlad Patent which serve as the basis for Aurora's anticipation argument. The parties' dispute the scope and content of the Almlad Patent with respect to the reference to housing (it is Hillman's position that the Almlad Patent does not recite or show a housing), and key identification technique (matching versus elimination).

In support of this difference in interpretation of the teachings of the Almlad Patent, Hillman advances the declaration of its expert, Dr. Grindon. Dr. Grindon disagrees<sup>16</sup> with Dr. Dieullis' interpretation of the teachings, scope and content of the Almlad Patent, as well as the meaning of the relevant terms of the Almlad Patent, which serve as the basis for Aurora's anticipation argument.

Further, Hillman points that Aurora does not contend and Dr. Dieullis's declaration and the Almlad Patent are silent with respect to the feature of "ranking" in the Almlad Patent. The absence of this feature of the '747 Patent from the Almlad Patent alone results in the failure of Almlad's anticipation argument.

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<sup>16</sup> Grindon Dec. ¶¶ 12-41

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*c. The Court's Ruling*

In order to conclude on summary judgment that the '747 Patent is invalid under § 102 because it was anticipated, the Court must first find that there are no material factors with respect to anticipation. This the Court cannot do.

As evident from the Court's discussion, *supra*, regarding the parties' respective positions as to the validity of the '747 Patent, their experts dispute the teachings, scope and the meaning of the various relevant terms in the Almlad Patent. These fact disputes go to the heart of Aurora's anticipation argument, and must be resolved by a fact finder before it can be determined whether the '747 Patent is invalid under § 102, which precludes summary judgment.

2. 35 U.S.C. § 103

*a. Aurora's position*

Aurora reasons that given that claims 44, 48, 49 and 60 of the '747 Patent are anticipated by the Almlad Patent under § 102, those claims are also obvious in light of the Almlad Patent.<sup>17</sup> In light of the Court's ruling with respect to anticipation of the '747 Patent, this argument is not sufficient to warrant a determination of obviousness at this time.

Aurora also argues that claim 48 is obvious based on the combination of the Almlad Patent and a publication issued a decade before the '747 Patent entitled *Fundamentals of Machine Vision Lighting* (the Novini Reference). In support of this position, Aurora advances the declaration of its expert Val DiEuliis for the it would be obvious to one of ordinary skill in the art to use an LED array for backlighting. DiEuliis Dec, ¶ 55.

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<sup>17</sup> ECF 242-2, p. 30 of 37 (citing *Johns Hopkins Univ. v. Cellpro, Inc.*, 152 F.3d 1342, 1347 n. 21 (Fed Cir. 1998) (anticipation is the epitome of obviousness)).

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Lastly, Aurora contends that claims 44, 49 and 69 are obvious based on the combination of two Japanese patents, JP109 and JP108, neither of which were considered by the examiner during the '747 Patent examination process. According to Aurora's expert, Dr. DiEuliis, the a person of ordinary skill in the art would combine these references to create a housing, properly place the key for camera imaging, derive all the elements contained in the '747 Patent key identification system from the combination of the JP108 and JP109 references.

DiEuliis, Dec. ¶¶ 61-96.

*b. Hillman's opposition*

Hillman generally advances the same expert testimony in opposition to Aurora's obviousness contention that it advanced in opposition to Aurora's position with respect to anticipation by the Almlad Patent. In addition, Hillman presents the expert testimony of Dr. Grindon to rebut the contention of Aurora's expert Dr. Dieullis that certain modifications to the Almlad Patent were obvious, and thereby rendering the asserted claims in the '747 Patent obvious. These modifications include the combination of certain optical and mechanical components, the placement of a sliding drawer on a rotatable pedestal, and the use of a wide-angle camera lens, all of which Dr. Grindon declares are not obvious modifications to the Almlad Patent and would result in undesirable or inoperable results. *See* Grindon Decl. ECF 251-10. The Hillman and Aurora experts also dispute the teachings and effect of the Japanese patents with respect to obviousness.

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*c. The Court's ruling*

The same fact disputes that defeat Aurora's argument for summary judgment based on anticipation by the Almlad Patent also defeat Aurora's argument for summary judgment based on obviousness. The parties' are virtually in total disagreement regarding the teachings, scope and content of the prior art which Aurora contends renders the '747 Patent obvious. These genuine disputes as to material facts preclude summary judgment in favor of Aurora with respect to the obviousness of the '747 Patent.

3. 35 U.S.C. § 112

*a. Aurora's position*

In this portion of its summary judgment motion, Aurora points out that two embodiments of the '747 Patent, figures 25A and 25B, show that the key identification process terminates if either the tip of the key or the head of the key are not contained in the imaged profile of the key. Aurora argues that these figures demonstrate that what the patent teaches in the specification is much narrower than the '747 Patent's broad claim that key identification can take place if "at least a portion of the profile of the key disposed on the support."<sup>18</sup> In support of this position, Aurora advances the opinion of its expert, Dr. Dieuliis, that the written description discloses less than the '747 Patent claims. As a consequence, Aurora concludes that the asserted claims fail to comply with 35 U.S.C. § 112 par. 1.<sup>19</sup>

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<sup>18</sup> The '747 Patent, Claim 44.

<sup>19</sup> Aurora states that the Court "apparently recognized that the invention would not work as requested by Hillman" in its claim construction opinion, but determined it did not need to construe the claims to make the invention operable. ECF 242-2, n. 8 (citing ECF 180, p. 11).  
(continued...)

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*b. Hillman's opposition*

In opposition, Hillman points out that the specification in the '747 Patent uses the exact language as the claims - i.e. - "a portion of the profile of the key" may be used for key identification, therefore satisfying the requirements of § 112. Hillman further advances the declaration of its expert Dr. Grindon, who declares that the "portion "required may be information about the head shape of the key, or information about the length of the key, and disputes the opinion of Aurora's expert that the written description of the '747 Patent is too narrow to support the claims that only a portion of the key is required for key identification. Grindon Dec. ¶ 101.

*c. The Court's Ruling*

Paragraph 1 of § 112 provides that the specification must contain a written description of the invention. The test under the written description requirement is whether the disclosure of the application reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date. In order to overcome the presumption of the validity of patents, Aurora must show that the claims lack a written description by clear and convincing evidence. *Hynix Semiconductor, Inc. v. Rambus, Inc.*, 645

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<sup>19</sup>(...continued)

Aurora misreads the Court's claim construction opinion. The Court's claim construction opinion makes no determination as to whether the claims at issue are or are not operable. Hy-Ko argued in support of its proposed claim construction for "portion of the profile of the key" that the control system failed if the imaged key did not include the overall head shape and length. The Court's statement that its role in construing claims was not to make claims operable was a response to Hy-Ko's claim construction argument, and not a recognition that the claim was inoperable.



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F.3d 1336, 1351 (Fed. Cir. 2011). “[W]hether a claim is supported by an adequate written description is a factual inquiry, and has been for some time.” *Id.* (citations omitted).

Once again, the parties’ experts express different opinions with respect to the adequacy of the written description of the claims of the ‘747 Patent regarding the portion of the profile of the key required. This fact dispute must be resolved by a fact finder, thus precluding summary judgment on this issue.

#### IV. CONCLUSION

For the reasons contained herein, the Aurora’s motion for summary judgment that the ‘894 and ‘747 Patents are invalid as a matter of law is DENIED.

Further for the reasons contained herein, Hillman’s motion to strike the report of plaintiffs’ expert, Robert Sturges, on the invalidity of the ‘894 Patent on the grounds that it is legally deficient (ECF 194), is DENIED.

Lastly, the Court did not find that oral argument would helpful to rendering its decision on Aurora’s summary judgment motion. Therefore, Aurora’s motion for oral argument (ECF 246) is denied.

IT IS SO ORDERED.

September 24, 2012  
Date

s/ David D. Dowd, Jr.  
David D. Dowd, Jr.  
U.S. District Judge