

United States District Court,  
S.D. New York.

**Ken S. LOVELETT,**  
Plaintiff.

v.

**PEAVEY ELECTRONICS CORPORATION, Sam Ash Music Corporation, and Alto Music of  
Orange County, Inc,**  
Defendants.

No. 95 CIV. 9657 (MBM)

**Oct. 16, 1996.**

John G. Costa, Russo & Burke, New York City, for Plaintiff.

Peter J. Kurshan, Herzfeld & Rubin, P.C., New York City, for Defendant.

Donald N. Huff, Watson Cole Stevens Davis, P.L.L.C., (Walter D. Ames, of Counsel), Washington, DC, for Defendant.

## **OPINION AND ORDER**

**MUKASEY, District Judge.**

Ken S. Lovelett sues Peavey Electronics Corporation ("Peavey") for infringement of a patent based on the design of a musical drum. Jurisdiction is based on 28 U.S.C. s. 1338 (1994). Defendant moves for a summary judgment of noninfringement and for attorney's fees and costs pursuant to Fed. Rule Civ. P. 11(c) and 28 U.S.C. s. 1927 (1994). For the reasons explained below, defendant's motion as to noninfringement is granted and its request for attorney's fees and costs is denied.

### **I.**

The undisputed facts in this case are as follows: Plaintiff designed a musical drum and on February 19, 1991 obtained a patent, U.S. Patent No. 4,993,304 ("the '304 patent"). (Lovelett Aff. para. 1, Ex. A) The patent specification states that the invention relates to "the novel multi-annular construction of a musical drum instrument." (Lovelett Aff., Ex. A, col. 1, lines 6-7) The patent's specification provides a useful general description of plaintiff's drum:

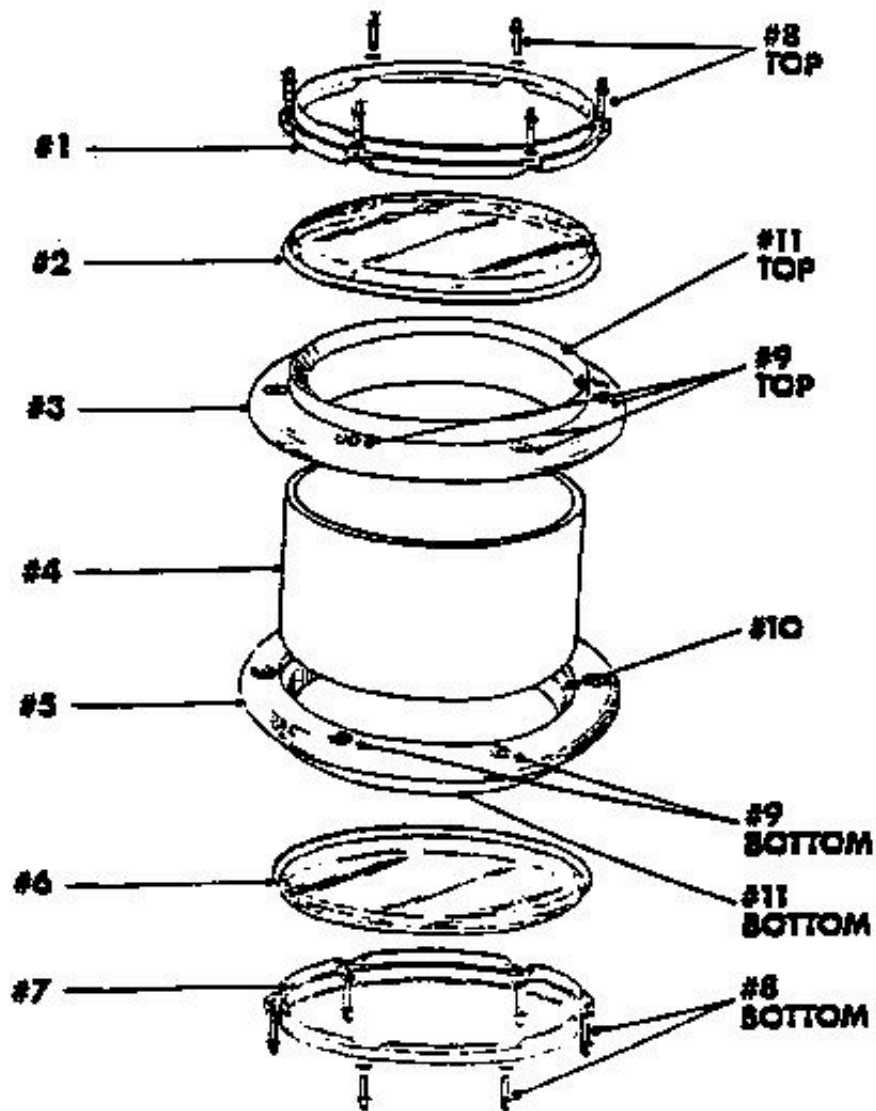
A plurality of non-jointed multi-annular rings are stacked to form a generally cylindrical drum shell. Drum heads are fastened to the shell at sounding rings which are rings of greater outer radius than the other rings. The rings contacting the drum head are shaped so as to enable a wide range for tuning the drum.

( Id., col. 1, lines 7-13) Thus, plaintiff's drum is made by stacking rings of wood, the "stacking rings," each with the same circumference, and one or more "sounding rings" with a greater external circumference, to which the drum head is attached. "The stacking rings and sounding ring(s), together, form the shell." (Lovelett Aff. para. 6) Both the stacking and sounding rings are cut from plywood and are non-jointed -- *i.e.*, in one continuous piece. ( Id. para. 6, 12, Ex. A, col. 4, lines 1-7) The '304 patent cites as prior art a conventional drum shell constructed from layers of plywood curved to form a rounded shell and "connected by glue, cement or the like." ( Id., Ex. A., col. 1, lines 37-38, Fig. 1) According to plaintiff, the problem with the prior art drum shell was that the glue or cement joint created a lack of uniformity in the shell's circumference and, consequently, resulted "in the annular course having varying vibration characteristics along the circumference." ( Id., col. 1, lines 40-41) Plaintiff designed his drum to avoid joints along the circumference of the shell. ( Id. para. 9)

Plaintiff claims that two drums made and sold by Peavey -- its tom-tom and bass drums -- infringe the '304 patent. (Def. 3(g) para. 11-12; Pl. 3(g) para. 6) Peavey's tom-tom and bass drums have a similar design; the only difference is that a bass drum is larger than a tom-tom. (Volpp Aff. para. 3) The structure of Peavey's alleged infringing drum is as follows:

The Peavey drum construction comprises a pair of similar rims #1 and #7, a pair of similar drum heads #2 and #6, a pair of similar bridges #3 and #5, and drum shell #4. Tension rods #8 are threaded into tension lugs #9 mounted in the bridge for pulling the rims #1 and #7 toward the bridges #3 and #5 respectively to place tension on the drumheads #2 and 6. The opposite ends of the drum shell #4 are received within recesses #10 in each of the bridges #3 and #5 and are permanently glued thereto.

(Def, 3(g) para. 29) The numbers in the above description correspond to those in the diagram of the Peavey drum, depicted below.



(Volpp Aff., Ex. B). Steven W. Volpp, the Drum Product Manager at Peavey, designed and, on October 11, 1994, obtained a patent for the allegedly infringing drum, U.S. Patent No. 5,353,674, which he assigned to Peavey. ( Id., Ex. A)

Peavey purchases its drum shell, #4 above, from Keller Products, Inc. (Def. 3(g) para. 30) The shell is made from three rectangular sheets of plywood stacked in a stepped or staggered fashion to provide thickness and then bent into a cylindrical form and glued together at the abutting ends. Each of these joints runs the length of the shell. ( Id. para. 31) Peavey's drum shell is the same as the shell cited in plaintiff's patent as prior art. ( Id. para. 34)

Plaintiff does not claim that defendant's shell infringes his patent. (Pl. Mem. at 10) Rather, plaintiff claims that the "Peavey Radial Bridge," #3 and #5 above, infringes the '304 patent. ( Id. at 3) Peavey's patent specification states that "[t]he present invention has a precisely machined bridge along with a near perfect shape" and continues:

[t]he bridge according to the present invention also serves as the tension and mounting point for all tuning and mounting hardware. The tuning and mounting hardware are not mounted on the drum shell, which allows more free resonance. The bridge is annular .... The conventional rim presses the drum head onto the bridge ....

(Volpp Aff., Ex. A, col. 4, lines 14-16, 24-28, 34-35) Plaintiff analogizes Peavey's bridge to his sounding ring. Plaintiff claims that Peavey's drum is the same as the drum described in the '304 patent because: "[b]oth drums use a flange to attach the drum head to the body of the drum." (Lovelett Aff. para. 7) According to plaintiff, the "flange" is Peavey's "radial bridge" and plaintiff's "sounding ring." ( Id.) Peavey's bridges are manufactured by Wisconsin Veneer and Plywood, Inc. (Volpp Aff. para. 6) A computer controlled router cuts the bridge in one continuous piece from a sheet of plywood. ( Id.)

Plaintiff filed a complaint on November 14, 1995, alleging infringement of his '304 patent. Plaintiff originally named as additional defendants Sam Ash Music Corporation and Alto Music of Orange County, Inc. Both of those defendants were dismissed pursuant to a Stipulation and Order entered January 31, 1996.

## II.

Summary judgment is appropriate if "there is no genuine issue as to any material fact" and "the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). To defeat a motion for summary judgment, the nonmovant must set forth specific facts that establish a genuine issue for trial, or demonstrate that the moving party is not entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c), (e).

"The law is well established that the determination of whether a claim [in a patent] has been infringed requires a two-step analysis. First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." *Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*, 15 F.3d 1573, 1576 (Fed. Cir. 1993). The construction of a patent and the interpretation of the claims set forth in the patent are matters of law to be decided by the court. *Markman v. Westview Instr. Inc.*, 116 S.Ct. 1384, 1396 (1996). "Infringement, whether literal or under the doctrine of equivalents is a question of fact." *Hilton Davis Chem. Co. v. Warner-Jenkinson Co., Inc.*, 62 F.3d 1512, 1520 (Fed. Cir. 1995). FN1 In addition, the patentee has the burden of proving infringement by a preponderance of the evidence. *Carroll Touch*, 15 F.3d at 1578. It follows that a summary judgment of noninfringement of a patent is appropriate if, after the court has construed the patent claims in issue, and based on the undisputed facts in the case, no reasonable jury could return a verdict for the nonmoving party.

## III.

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using, or selling the protected invention." *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). Plaintiff's '304 patent includes 20 claims. (Lovelett Aff., Ex. A) Three of those claims are independent: claims 1, 9, and 15. FN2 Claim 1 reads:

1. A multi-annular music drum comprising: a plurality of annular shell rings, each ring being non-jointed along its circumference, said plurality of shell rings axially aligned and permanently connected to form a generally cylindrical drum shell.

Claim 1 contains no other elements. Both claim 9 and claim 15 include the above element. Claim 9 includes

a further element:

a sounding ring of said plurality of shell rings having a greater outer radius than the other shell rings, said sounding ring comprising means for receiving a drum head fastener.

Claim 15 contains the first element and, after the phrase "generally cylindrical drum shell," continues "said plurality of shell rings comprising one or more sounding rings having a greater outer radius than the other shell rings." Claim 15 includes also two other elements not at issue here. ( *Id.*) Each independent claim in the '304 patent thus includes the same element: a plurality of non-jointed annular shell rings, connected to form a generally cylindrical shell. Because it is "axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to be infringed," *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989), if the Peavey drum does not infringe any of claims 1, 9 and 15 -- in that it does not contain a plurality of non-jointed annular shell rings connected to form a cylindrical shell -- defendant has not infringed the '304 patent. *See also* 35 U.S.C. s. 112 (1994).

The "All Elements Rule," consistently adhered to by the Federal Circuit, provides that where an element of a claim is missing in an accused product, there can be no infringement. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935 (Fed. Cir. 1987) (en banc), *cert. denied*, 485 U.S. 961 (1988); *see also* *Dolly, Inc. v. Spalding & Evenflo Cos., Inc.*, 16 F.3d 394, 397 (Fed. Cir. 1994) ("To show infringement, the plaintiff must establish that the accused device includes every limitation of the claim or an equivalent of each limitation."); *Carroll Touch*, 15 F.3d at 1576 ("A claim covers an accused device if the device embodies every limitation of the claim, either literally or by an equivalent."); *Corning Glass Works*, 868 F.2d at 1259 (noting that the "All Elements Rule" is the law of the Federal Circuit); *Amstar Corp. v. Envirotech Corp.*, 730 F.2d 1476, 1484 (Fed. Cir.), *cert. denied*, 469 U.S. 924 (1984) (noting the "long established legal principle that non-infringement is shown when an element or step in the claims is missing from the accused product"). The "All Elements Rule" applies both to literal infringement and infringement under the doctrine of equivalents. In *Dolly, Inc.* the Court noted that although the doctrine of equivalents "does not require a one-to-one correspondence between components of the accused device and the claimed invention" the accused device must "nevertheless contain every limitation or its equivalent." 16 F.3d at 398; *see also* *Carroll Touch*, 15 F.3d at 1578 ("[D]etermining whether there is infringement under the doctrine of equivalents 'does not mean one can ignore claim limitations.'" ( *quoting* *Pennwalt*, 833 F.2d at 935)). Thus, if an element of claims 1, 9 and 15 is not present in the Peavey drum, literally or by an equivalent, defendant is entitled to a summary judgment of noninfringement.

#### **A. Construction of the '304 Patent *Limitation***

As noted, in the '304 patent, claims 1, 9 and 15 each require a "plurality of annular shell rings" each ring being "non-jointed along its circumference " and "connected to form a generally cylindrical drum shell."

In construing the elements in plaintiff's independent claims, the words must be given "their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently." *Carroll Touch*, 15 F.3d at 1577. Reference to a dictionary to determine the ordinary and accustomed meaning of a word is appropriate. *Miles Labs, Inc. v. Shandon, Inc.*, 997 F.2d 870, 876 (Fed. Cir. 1993), *cert. denied*, 510 U.S. 1100 (1994). Webster's Dictionary defines plurality as "the state of being plural," or "the state of being numerous," or "a large number or quantity," or a "multitude." *Webster's Third New International Dictionary* 1745 (1986). Webster's defines "connected" as "joined" or "linked together." *Id.* at 480.

Nothing in the '304 patent's specification points to a definition of "plurality" different from Webster's. Indeed, the specification always refers in the plural to the rings which comprise the drum shell. For example, in defining the sounding ring, the specification states that "one or more of *such rings* function as sounding rings which have a greater outer radius than *the other shell rings*." (Lovelett Aff., Ex. A, col. 3, lines 21-23) (emphasis added). Therefore, each of plaintiff's independent claims -- 1, 9 and 15 -- requires a "multitude of" or "numerous" annular shell rings. The '304 patent does, however, define "connected." "Pins are positioned axially into adjacent rings to precisely position the rings relative to one another," and "pins ... are embedded into adjacent rings to radially align and maintain the relative ring positions." (Lovelett Aff., Ex. A, col. 3, lines 17-19; col. 4, lines 19-22) Accordingly, "connected" in the '304 patent means linked together with the use of pins embedded in the rings. Finally, the term "drum shell," as used in the '304 patent, includes both the stacking and the sounding rings. ( Id. col. 3, Line 62 - col. 4, Line 6)

### **B. Comparison of the Peavey Drum to the '304 Patent**

Each independent claim of the '304 patent includes a plurality of non-jointed, annular shell rings, connected to form a cylindrical shell. Plaintiff argues, in essence, that the Peavey radial bridge, #3 and #5 in the above diagram, is a drum shell as defined in the '304 patent, in that it could include both stacking and sounding rings. Plaintiff argues that the radial bridge, which is cut from a 2" thick sheet of plywood, could have been "constructed from a number of rings cut out of thinner boards, for example four 1/2" thick sheets of plywood or two 1" thick sheets of plywood," (Pl. Mem. at 8), and could thus be considered a "plurality" of non-jointed annular shell rings. FN3

Plaintiff argues also that defendant's use of a prior art drum shell -- #4 in the above depiction of the Peavey drum -- does not necessitate a finding of noninfringement because the '304 patent uses the term "comprising," a term whose effect in patent law is such that an accused product may contain elements additional to those set forth in the patent and still be found to infringe. *See* *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1271 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1030 (1987) Thus, plaintiff argues that even though the Peavey drum includes the prior art drum shell, the two radial bridges, if found to constitute a plurality of rings, infringe the '304 patent.

Plaintiff's first argument -- that Peavey's radial bridge, in and of itself, *could* constitute a "plurality" of rings if it were cut out of thinner sections of plywood -- is hypothetical and does not correspond to the actual construction of the Peavey bridge. In determining patent infringement, the claim, properly construed, must be compared with the accused product, not with a hypothetical design. Here, Peavey's radial bridge is constructed to include a recess, #10 in the above diagram, into which the prior art drum shell is permanently inserted. The radial bridge could be made out of thinner layers of plywood -- thus comprising a plurality of non-jointed stacking and sounding rings -- and infringe the '304 patent, if the entire Peavey drum were redesigned without the prior art drum shell. However, the purpose of the Peavey drum design was to provide a "thin drum shell to enhance shell resonance." (Volpp Aff. para. 4) That thin drum shell itself is prior art. Moreover, Peavey's own patent claims require that the prior art drum shell be attached to the radial bridge. (Volpp Aff., Ex A, col. 10, lines 64-66; col. 12, line 44; col. 13, lines 17-18; col. 14, lines 54-55). As designed, the Peavey radial bridge does not constitute a "plurality" of annular rings. Rather, the bridge is one ring, designed to be attached to the drum head and to a prior art drum shell. FN4

Plaintiff's second argument -- that the existence of the prior art drum shell does not necessitate a finding of noninfringement -- misses the point. To prove infringement, plaintiff must still demonstrate that each

element of its claim is found in the accused product. Here, even if I ignore the addition of the prior art drum shell, as plaintiff asks, and even if I find the bridge constitutes a plurality of rings, the Peavey drum still does not satisfy the elements set forth in the patent's independent claims -- *i.e.*, the requirement that the "plurality of annular shell rings" be "*connected to form a generally cylindrical drum shell.*" (Lovelett Aff., Ex. A, col. 3, lines 13, 15-16; 44, 46-47; col. 4, lines 20, 23-24) (emphasis added) First, Peavey's radial bridges are specifically manufactured with a recess, to glue the prior art drum shell permanently to the bridge. (Volpp Aff. para. 7-8) Peavey's radial bridges are not, and as designed cannot be, "connected" to each other, as defined in the '304 patent -- joined together with pins embedded in each ring -- because they include the recess along the bottom and top of the bridge. Second, the Peavey bridges do not themselves form "a generally cylindrical drum shell"; they are designed to be connected to a prior art drum shell.

Although, "comprising" is a term of art in patent law, which "does not exclude additional unrecited elements or steps," *Moleculon Research Corp.*, 793 F.2d at 1271, an additional structure in an accused product may not be disregarded where that structure is inconsistent with the patent's claim. *Becton Dickinson and Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 797 (Fed. Cir. 1990). Here, I cannot ignore Peavey's prior art drum shell because it is inconsistent with plaintiff's patent claim of a plurality of annular shell rings "connected to form a generally cylindrical drum shell."

The Peavey drum is not constructed of a plurality of non-jointed annular rings, connected to form a generally cylindrical shell. Because this common element found in each of the three independent claims in the '304 patent is missing from the Peavey drum, the Peavey drum does not literally infringe the '304 patent.

The Peavey drum also does not infringe the '304 patent under the doctrine of equivalents, as interpreted by existing precedent. Plaintiff spends all of two sentences arguing infringement under the doctrine of equivalents: "The differences between the Radial Bridge and the Lovelett drum are insignificant. They perform substantially the same function in substantially the same way to achieve substantially the same result." (Pl. Mem. at 13) Plaintiff's argument fails.

First, it is inconceivable that a rational fact finder could find the replacement of plaintiff's shell rings with a prior art drum shell to be an insubstantial difference as required by the doctrine. *See Hilton Davis*, 62 F.3d at 1521-22 ("[A] finding of infringement under the doctrine of equivalents requires proof of insubstantial differences between the claimed and accused products or processes."). Second, the doctrine requires that an equivalent be found for every element of the claim "somewhere in [the] accused device ...." *Corning Glass*, 868 F.2d at 1259. For example, in *Dolly, Inc.*, the Federal Circuit refused to find infringement under the doctrine of equivalents based on the "All Elements Rule." In that case, the patent holder's highchair included a claim comprising a seat panel, a seat back, two side panels, and a stable rigid frame. 16 F.3d at 396. The accused product included only a seat, a back and two sides. *Id.* Although the sides together formed a rigid frame, the Court found no infringement under the doctrine of equivalents because the accused product did not include a separate frame. The Court stated that "[t]his court cannot 'convert a multi-limitation claim to one of fewer limitations to support a finding of equivalency'" and "[a]n 'equivalent' of a claim cannot substantially alter the manner of performing the claimed function." *Id.* at 399, 400 (citing *Pennwalt*). Here, no rational fact finder could find in the Peavey drum the equivalent of a plurality of non-jointed rings connected to form a cylindrical shell. Even if one could, "where an accused device performs substantially the same function to achieve substantially the same result but in a substantially different manner, there is no infringement under the doctrine of equivalents." *Id.* at 400; *see also Pennwalt Corp.*, 833 F.2d at 935. Although both plaintiff's drum and the Peavey drum are intended to produce a higher quality of musical sound, they do so in substantially different ways. Accordingly, the Peavey drum does not infringe the '304

#### IV.

Finally, defendant moves for sanctions pursuant to Fed. R. Civ. P. 11(c) and/or 28 U.S.C. s. 1927. Rule 11(c) allows the imposition of sanctions if plaintiff's legal contentions were not "warranted by existing law or by a nonfrivolous argument for the extension, modification, or reversal of existing law or the establishment of new law" or if "the allegations and other factual contentions" lacked evidentiary support. Fed. R. Civ. P. 11(b). Costs and reasonable attorney's fees can also be imposed pursuant to 28 U.S.C. s. 1927 against an attorney who "multiplies the proceedings in any case unreasonably and vexatiously." Plaintiff's legal claim required an interpretation of his patent claims. His factual assertions were, in my view, something of a stretch. However, patent holders have the right to protect against infringement, and plaintiff's attempt neither wholly lacked evidentiary support, nor multiplied the proceeding vexatiously, such that the imposition of sanctions is warranted.

#### 3

For the reasons stated above, defendant's motion for a summary judgment of noninfringement is granted. Defendant's motion for costs and attorney's fees pursuant to Fed. R. Civ. P. 11(c) and 28 U.S.C. s. 1927 is denied.

SO ORDERED.

FN1. The doctrine of equivalents, first articulated by the Supreme Court in *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605 (1950) applies where there is no literal infringement, but the differences between the patented and the accused product are insubstantial. *Hilton Davis*, 62 F.3d at 1521-22. Ordinarily, the test for determining whether differences are substantial is the "function-way-result" test, which asks whether the accused product performs the same function in substantially the same way and with substantially the same result. However, "[o]ther factors ... such as evidence of copying or designing around, may also inform the test" and whether the accused product is substantially different. *Id.* at 1522.

FN2. "A [patent] claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.... A claim in dependent form shall be construed to incorporate by reference all limitations of the claim to which it refers." 35 U.S.C. s. 112.

FN3. Defendant argues, at great length, that its radial bridges are jointed because they are formed from a piece of plywood comprising 16 cross-laminated layers, and the cross lamination necessarily creates joints. (Volpp Aff. para. 6-16; Def. Mem. at 13). However, the '304 patent defines "non-jointed" in contrast to the prior art of drum shell construction, which was "sections connected end to end to form a ring .... connected by glue cement or the like." (Lovelett Aff., Ex. A, col. 1, lines 34-37). In contrast, non-jointed rings are formed by "cutting a ring from a board of laminated plywood." ( *Id.* col. 4, lines 5-6). Peavey's radial bridges are cut, in one piece, from a plywood blank and require no glue or cement to form a ring (Volpp Aff. para. 7), and are, therefore, "non-jointed" as defined in the '304 patent.



FN4. Plaintiff argues also that Peavey's radial bridge "with a drum head attached is a drum in and of itself" (Pl. Mem. at 9), and that the addition of the prior art shell is not necessary to make a drum. Assuming that dubious suggestion to be true, a single radial bridge, even if comprising two or three annular rings, is not a "plurality" of annular rings; it does not comprise "several" or "many" or a "multitude" of rings.

FN5. I am mindful that the Supreme Court has granted *certiorari* to review *Hilton Davis*, and the proper scope of the doctrine of equivalents. 116 S.Ct. 1014 (1996). However, the result here -- that the Peavey drum does not infringe the '304 patent under the doctrine because the differences are substantial and because it fails the "All Elements Rule" in that the equivalent of every element in the '304 patent is not found in it -- would not be different even if the Supreme Court narrows the doctrine. The result here might change only if the Court expands the doctrine considerably beyond its current scope. The question presented in the Petitioner's Brief to the Court for review is: "Whether patent infringement exists whenever the accused product or process is "equivalent" to the invention claimed in the patent, in that the differences are not "substantial" as determined by a jury, even though the accused product or process is outside the literal scope of the patent claim." Brief for Petitioner at \*2, *Hilton Davis*, 1996 WL 172235 (April 11, 1996).

S.D.N.Y., 1996.

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