

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

CROWN PACKAGING TECHNOLOGY, INC. and CROWN CORK & SEAL USA, INC.,	:	
	:	
	:	
Plaintiffs,	:	
	:	
v.	:	Civil Action No. 05-608-MPT
	:	
REXAM BEVERAGE CAN CO.,	:	
	:	
Defendant.	:	

**MEMORANDUM ORDER**

**INTRODUCTION**

This is a patent infringement case. On August 18, 2005 Crown Packaging Technology, Inc. and Crown Cork & Seal USA, Inc. (collectively "Crown") filed suit against Rexam Beverage Can Co. ("Rexam") and Rexam Beverage Can Americas, Inc. alleging infringement under 35 U.S.C. § 271 of Crown's U.S. Patent No. 6,848,875 ("the '875 patent").<sup>1</sup> On August 30, 2005, Crown filed its First Amended Complaint adding a count alleging infringement of its U.S. Patent No. 6,935,826 ("the '826 patent").<sup>2</sup> On October 18, 2005, Crown filed an Unopposed Motion for Leave to File Second Amended Complaint<sup>3</sup> which was granted on October 20, 2005<sup>4</sup> and that complaint was filed on the same date.<sup>5</sup>

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<sup>1</sup> D.I. 1 (Complaint for Patent Infringement).  
<sup>2</sup> D.I. 3 (First Amended Complaint for Patent Infringement).  
<sup>3</sup> D.I. 13.  
<sup>4</sup> D.I. 15.  
<sup>5</sup> D.I. 16. Rexam Beverage Can Americas, Inc. was terminated as a defendant on this same date. See D.I. 13, ¶ 4; D.I. 15. No additional patents were asserted by Crown in the Second Amended Complaint. See D.I. 16.

On November 3, 2005, Rexam filed its Answer to Second Amended Complaint for Patent Infringement and Counterclaims, denying infringement, raising certain affirmative defenses and alleging infringement of its U.S. Patent Nos. 4,774,839 (“the ‘839 patent”), 5,222,385 (“the ‘385 patent”), 5,697,242 (“the ‘242 patent”), 6,129,230 (“the ‘230 patent”), and 6,260,728 (“the ‘728 patent”).<sup>6</sup> On December 23, 2005, Crown filed its answer to Rexam’s counterclaims denying infringement and raising certain affirmative defenses.<sup>7</sup>

On September 11, 2006, the parties consented to the jurisdiction of the United States Magistrate Judge, pursuant to 28 U.S.C. 636(c) and Federal Rule of Civil Procedure 72, to conduct all proceedings and enter the order of judgment and the case was referred to the magistrate judge the following day.<sup>8</sup>

On May 17, 2007, the court issued its claim construction order defining certain terms of the asserted claims of the patents-in-suit.<sup>9</sup>

Currently before the court is Rexam’s motion, pursuant to Federal Rule of Civil Procedure 56(c), for partial summary judgment of infringement of U.S. Patent Nos. 4,774,839 and 5,697,242.<sup>10</sup> For the reasons discussed below, Rexam’s motion is granted in part and denied in part.

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<sup>6</sup> D.I. 17.

<sup>7</sup> D.I. 37.

<sup>8</sup> D.I. 111; D.I. 114.

<sup>9</sup> D.I. 334.

<sup>10</sup> D.I. 208. On July 24, 2007, the court granted in part and denied in part Crown’s Motion for Partial Summary Judgment Dismissing Rexam’s Counterclaim I and Limiting Damages on Counterclaims II-III Based on Laches and Failure to Comply with 35 U.S.C. § 287(a). D.I. 197 (Crown’s Motion for Partial Summary Judgment); D.I. 347 (Order). In light of granting summary judgment in favor of Crown with regard to the ‘839 patent (the subject of Rexam’s Counterclaim I) Rexam’s motion for summary judgment of infringement of that patent is denied as moot. Consequently, the court will not discuss the parties’ arguments (briefed prior to the court’s July 24, 2007 order) with regard to the ‘839 patent.

## DISCUSSION

Rexam asserts that Crown has infringed certain method claims of the of the '242 patent by using those patented methods in its manufacturing process for beverage cans at its Fort Bend, Texas ("Fort Bend") facility. In the motion under consideration here, Rexam seeks summary judgment that Crown infringes claims 11 and 12 of the '242 patent.<sup>11</sup> Rexam's '242 patent relates to a method of reforming the bottom of a can body, or can base. The method described therein strengthens the can bottom, thereby reducing the thickness of the metal used for a can body, with resultant metal savings.

Summary judgment is proper if the "pleadings, depositions, answers to interrogatories, and admissions on file, together with affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law."<sup>12</sup>

The party seeking summary judgment bears the initial burden of establishing the lack of a genuinely disputed material fact by demonstrating that there is an "absence of evidence to support the nonmoving party's case."<sup>13</sup> Summary judgment is appropriate when there is no genuine issue of material fact or, when drawing all factual inferences in favor of the nonmoving party, no "reasonable jury could return a verdict for the nonmoving party."<sup>14</sup> The court is to give the nonmoving party the benefit of all justifiable inferences and must resolve disputed issues of fact in favor of the non-movant.<sup>15</sup> To

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<sup>11</sup> Rexam also alleges that Crown has infringed claim 17 of the '242 patent but has not moved for summary judgment with respect to that claim.

<sup>12</sup> Fed. R. Civ. P. 56(c).

<sup>13</sup> *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986).

<sup>14</sup> *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

<sup>15</sup> *Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451, 456 (1992).

determine whether a claim has been infringed, the court must conduct a two step analysis: claim construction and application of the construed claim to the accused product or process.<sup>16</sup> The patent owner has the burden of proving infringement by a preponderance of the evidence.<sup>17</sup> "It is well settled that each element of a claim is material and essential, and that in order for a court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device."<sup>18</sup>

To prove infringement, therefore, Rexam must demonstrate by a preponderance of the evidence that Crown's bottom reforming process practices each element of claims 11 and 12 of the '242 patent.

Claim 11 of the '242 patent recites:

A method of reforming a bottom of a drawn and ironed beverage container, said container having a longitudinal axis; a generally cylindrical side wall parallel with said longitudinal axis; a generally cylindrical side wall parallel with said longitudinal axis; the bottom having an outer annular wall, a convex U-shaped portion, a preformed bottom wall including a center domed portion, and an annular, substantially longitudinal wall joining said domed portion and said convex U-shaped portion, said method comprising:

providing said drawn and ironed beverage container;

providing a reforming roller; and

moving said reforming roller radially into engagement with said substantially longitudinal wall of said beverage container, said reforming roller rotating along said longitudinal wall and circumferentially about an arcuate path, wherein said reforming roller affects the angle of said

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<sup>16</sup> *Johns Hopkins Univ. v. CellPro, Inc.*, 152 F.3d 1533,1353 (Fed. Cir. 1998).

<sup>17</sup> *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 758 (Fed.Cir.1984) (citing *Hughes Aircraft Co. v. United States*, 717 F.2d 1351, 1361 (Fed.Cir.1983)).

<sup>18</sup> *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1568 (Fed. Cir. 1996) (citing *Lemelson v. United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985)).

substantially longitudinal wall.

Claim 12 depends from claim 11 and recites: "The method of claim 11 including the step of providing radial inward support for said container."

Rexam submits that the report of its infringement expert, Edmund Gillest, supported by the manual for the machine Crown uses; the technical drawings produced by Crown and Belvac (the manufacturer of the bottom reforming machine); and the testimony of Crown's witnesses establish that Crown infringes claims 11 and 12 of the '242 patent. Rexam also notes that Crown's expert witness, Anton A. Aschberger, did not provide an opinion in rebuttal to Gillest's infringement analysis of the '242 patent.<sup>19</sup>

Crown opposes Rexam's motion contending that Rexam has failed to establish a prima facie case showing that it is entitled to judgment as a matter of law. Because of this purported deficiency, Crown argues it is not required to come forward with evidence showing that there are genuine issues of material fact.

Crown contends that Rexam has not identified record evidence establishing that it is entitled to summary judgment on all of the elements of its infringement claims. Crown states that Rexam did nothing more than to generally cite to Crown documents, off-point deposition testimony and physical can samples with no specific correlation between that evidence and the claim elements.

### **'242 Patent, Claim 11**

The first limitation of claim 11 of the '242 patent recites:

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<sup>19</sup> Ashberger's January 5, 2007 rebuttal report to Gillest's expert report includes Aschberger's opinion that Crown does not infringe claim 17 of the '385 patent based on an element of that claim not contained in either claim 11 or claim 12 of the '242 patent. See D.I. 207 at A154-A158. Aschberger does not discuss the '242 patent in his rebuttal report. See *id.*

A method of reforming a bottom of a drawn and ironed beverage container, said container having a longitudinal axis; a generally cylindrical side wall parallel with said longitudinal axis; a generally cylindrical side wall parallel with said longitudinal axis; the bottom having an outer annular wall, a convex U-shaped portion, a preformed bottom wall including a center domed portion, and an annular, substantially longitudinal wall joining said domed portion and said convex U-shaped portion, said method comprising:

This limitation requires a drawn and ironed beverage container and describes certain aspects of that container. First, the container has a longitudinal axis and a generally cylindrical side wall parallel to the longitudinal axis. Next, the bottom of the container is described as having an outer annular wall, a convex U-shaped portion and a preformed bottom wall. The preformed bottom wall has a center domed portion and an annular, substantially longitudinal wall, joining the domed portion and the convex U-shaped portion.

Crown's technical drawings establish that each of the elements of this limitation are present in the Crown cans at issue here.<sup>20</sup> Each of the drawings on the referenced pages of Rexam's appendix to its opening brief includes a cross section illustration of a beverage container. Those illustrations depict a beverage container having a longitudinal axis and a generally cylindrical (circular) sidewall parallel to that axis. Also illustrated is the bottom of a beverage container with a having outer annular wall, a convex U-shaped portion and a preformed bottom wall. The bottom wall is shown having a center domed portion and an substantially longitudinal annular wall joining the domed portion and the convex U-shaped portion. Physical can samples also include

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<sup>20</sup> See D.I. 207 at A061, A062, and A064.

the elements of this limitation.<sup>21</sup>

The second limitation requires a “drawn and ironed beverage container.”

Gillest states that typical beverage cans, including Crown’s cans, are drawn and ironed beverage cans.<sup>22</sup> “Crown does not dispute that it provides drawn and ironed cans to its bottom reforming process.”<sup>23</sup>

The third limitation requires “providing a reforming roller.”

This element requires at least one reforming roller. Gillest states that “Crown uses a reforming roller to alter the shape of the inner longitudinal wall of the bottom of the can.”<sup>24</sup> At deposition, Crown’s witness Richard Golding initially agreed that the bottom reforming process at Crown’s Fort Bend facility employs a reforming roller, then stated that Crown refers to that piece of equipment as simply a “roller”:

Q. Okay. And does the reforming process that Crown uses at its Fort Bend facilities include a – what we call a reforming roller?

A. Yes.

MR. ZIEGLER: Objection. It calls for a legal conclusion, lacks foundation.

Q. Does Crown refer to that – the piece of equipment that actually reforms the bottom as a reforming roller?

A. It has a roller, yes.

Q. Do you call it a reforming roller?

A. I call it a roller.

Q. A roller, okay. Does the process that Crown uses at its Fort Bend

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<sup>21</sup> D.I. 207 at A139-A153.

<sup>22</sup> D.I. 207 at A129.

<sup>23</sup> D.I. 270 at 14 (Crown’s Memorandum in Opposition to Rexam’s Motion for Summary Judgment that Crown Infringes Rexam’s 839 Necking Patent and 242 Bottom Reforming Patent).

<sup>24</sup> D.I. 207 at A130.

facility for base reforming employ a single roller or more than one roller in the reforming process?

A. In each tooling head setup, there is one roller.<sup>25</sup>

A Belvac document confirms the use of a reforming roller. That document illustrates part of the bottom reforming equipment and identifies a part labeled "4902" as a "REFORMER ROLLER."<sup>26</sup> The court determines that the evidence submitted by Rexam establishes that Crown's bottom reforming process employs this limitation.

The fourth, and last, limitation of claim 11 recites:

moving said reforming roller radially into engagement with said substantially longitudinal wall of said beverage container, said reforming roller rotating along said longitudinal wall and circumferentially about an arcuate path, wherein said reforming roller affects the angle of said substantially longitudinal wall.

This limitation requires: the radial movement of the reforming roller into engagement with the substantially longitudinal wall of the beverage container; the reforming roller to rotate along the longitudinal wall and circumferentially about an arcuate path; and that the reforming roller affects the angle of the substantially longitudinal wall.

In its claim construction order, the court adopted the parties' proposed construction of "moving said reforming roller radially" as meaning "moving the reforming roller from a radially inward position to a radially outward position with respect to the longitudinal axis."<sup>27</sup>

With respect to the movement of the "reforming roller radially into engagement

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<sup>25</sup> D.I. 207 at A044 (Golding Dep. at 79).

<sup>26</sup> D.I. 207 at A099; *see also id.* at A095 (schematic of bottom reforming apparatus identifying part "4924" as "ROLLER REFORM.").

<sup>27</sup> D.I. 334 at 44.

with said substantially longitudinal wall of said beverage container,” Golding was asked to explain “how the reforming roller comes in contact with the reverse wall on the machines that your all are using in your Fort Bend facility” and testified that “the roller is moved by a cam motion on the machine and there is a linkage in there that moves the roller into contact.”<sup>28</sup> In response to a question concerning the starting location of the reforming roller, he stated that it “starts off center and then is moved further off center” and further testified as follows:

Q. Okay. So it starts off center and then it is moved further off center to come into contact with the reverse wall?

A. Yes.

\* \* \*

Q. And so when the roller moves from slightly off center to more off center to come into contact with the reverse wall, is that moving radially outward?

MR. ZIEGLER: Objection; calls for a legal conclusion, lack of foundation.

Q. From an engineering standpoint question?

MR. ZIEGLER: Not from the patent standpoint, is that correct?

MR. WILLIS: From his understanding engineering wise.

MR. ZIEGLER: Thank you.

A. Okay. You've confused me. From an eng- -- from my understanding as an engineer, that roller is moving – as I said, moving outwards. It's [sic] path outwards is defined by that H link and the cam profile and on the Belvac equipment that's radially.

Q. So it would be radially outward?

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<sup>28</sup> D.I. 207 at A045 (Golding Dep. at 82).

A. Yeah, moving away from center if that's defining outwards.<sup>29</sup>

Golding's testimony, therefore, demonstrates the Crown's bottom reforming process meets this element of the fourth limitation.

The court adopted the parties' proposed construction of "reforming roller rotating along said longitudinal wall and circumferentially about an arcuate path" as meaning "reforming roller revolving around its own axis and rolling along the longitudinal wall on a circular path adjacent to the wall."<sup>30</sup>

With regard to this element, Golding testified that:

As the can goes around the turret, there is a – as I talked about, there is the cam profile, there is a linkage that moves the roller to create the bead as the roller is also rotating around its own axis. . . . And as the can goes around, that roller is moved to form the bead in the can.<sup>31</sup>

Golding also testified as follows:

Q. And when the roller moves from slightly off center to further off center to contact the reverse wall, does the roller itself go around the reverse wall? You said the roller spins on its own axis as well. But does the roller move around the axis of the base of the can as well?

A. The – the center of the roller processes around the axis of the can so that the contact point also processes around the can.

Q. Okay. So during the reforming process there is always – the roller is always in contact with that reverse wall until the bead is complete?

A. Yes.<sup>32</sup>

Golding's testimony, therefore, demonstrates the Crown's bottom reforming process meets this element of the fourth limitation.

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<sup>29</sup> D.I. 207 at A045-A046 (Golding Dep. at 84-86).

<sup>30</sup> D.I. 334 at 44-45.

<sup>31</sup> D.I. 207 at

<sup>32</sup> D.I. 207 at A046 (Golding Dep. at 86-87).

The court adopted the parties' proposed construction of "affects the angle" to mean "changes the inclination or shape."<sup>33</sup> Thus, the reforming roller must change the inclination or shape of the substantially longitudinal wall. Golding's testimony also confirms that Crown's bottom reforming process meets this final element of the fourth limitation.

Q. And then after the can is reformed with the base reformer, regardless of whether it's a vertical profile, a negative profile or a hooked or beaded profile, that radially inward taper is – has changed, has it not?

A. Well, on the way we do it, there is no taper anymore.

Q. So it has changed. It has gone from a taper to no taper. Is that accurate?

A. Yeah, the profile is different. It's gone to a beaded profile.<sup>34</sup>

Because Rexam has presented a preponderance evidence demonstrating that at its Fort Bend facility Crown is practicing each element of claim 11 of the '242 patent, and Crown has raised no genuine issue of material fact as to any of those elements, the court determines Rexam is entitled to summary judgment that Crown has infringed that claim.

### **'242 Patent, Claim 12**

Claim 12 of the '242 patent depends from claim 11 and recites: "The method of claim 11 including the steps of providing radial inward support for said container."

The court adopted the parties' proposed construction of "radial inward support" as meaning "a device imparting a force directed against the outside of the container

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<sup>33</sup> D.I. 334 at 45.

<sup>34</sup> D.I. 207 at A048 (Golding Dep. at 181-82).

and radially inward toward the longitudinal axis.”<sup>35</sup> In its brief in opposition to Rexam’s motion, Crown’s only argument that it does not infringe claim 12 rests on its contention that it does not infringe claim 11 and, therefore, cannot infringe dependent claim 12.

Belvac documents illustrating part of the mechanism used by Crown for its bottom reforming show part of the bottom reforming equipment labeled “4901” and identified as a “DOME RECEPTACLE.”<sup>36</sup> The drawing includes a cross section of the bottom of a beverage container within the dome receptacle, which dome receptacle would impart a force directed against the outside of the container and radially inward toward the longitudinal axis as required by this element. Golding’s testimony is consistent with that determination:

Q. Okay. And the receptacle keeps the can from moving while the internal base reforming is occurring, right?

A. Moving radially.

\* \* \*

Q. Is [the receptacle] designed so that it – the receptacle and the can fit like a male/female piece?

A. They are designed to fit together.

Q. And does the receptacle prevent the can from moving radially by imposing pressure from the outside in?

A. The receptacle is a groove that locates the stand radius. So it is holding it on that stand radius on both the inside and the outside of the stand radius. And both of those features of it hold it from – on center line.<sup>37</sup>

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<sup>35</sup> D.I. 334 at 44.

<sup>36</sup> D.I. 207 at A095; A099.

<sup>37</sup> D.I. 207 at A044 (Golding Dep. at 78-79); *see also id.* at A131 (“Richard Golding testified that Crown’s current dome receptacle provides ‘outside support on the stand radius.’” (Gillest Expert Report at 27 (quoting “Golding Transcript, pg. 57, lines 10-13”))). The court notes that it does not find page 57 of

Because Rexam has presented a preponderance evidence demonstrating that at its Fort Bend facility Crown is practicing the sole element of claim 12 of the '242 patent, and Crown has raised no genuine issue of material fact as to any of those elements, the court determines Rexam is entitled to summary judgment that Crown has infringed that claim.

## **CONCLUSION**

At Wilmington, this 21st day of December, 2007:

For the reasons stated above:

IT IS ORDERED and ADJUDGED that Rexam's motion for partial summary judgment of infringement of U.S. Patent Nos. 4,774,839 and 5,697,242 (D.I. 208) is

**GRANTED in part and DENIED in part.**

1. Rexam's motion for summary judgment of infringement of claims 11 and 12 of the '242 patent is **GRANTED**.
2. Rexam's motion for summary judgment of infringement of the '839 patent is **DENIED as moot**.

  
UNITED STATES MAGISTRATE JUDGE

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the Golding deposition in the parties' submissions.