

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 77

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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DAVID BARTZ and MARTIN G. CARSWELL

Junior Party,<sup>1</sup>

v.

H. JACK MOORE, JR. and MARTIN ABALOS

Senior Party.<sup>2</sup>

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Interference No. 104,180

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Before URYNOWICZ, MARTIN and CRAWFORD, Administrative Patent Judges.

URYNOWICZ, Administrative Patent Judge.

FINAL DECISION

The invention at issue in this interference relates to a water heater. The particular subject matter in issue is illustrated by count 1 as follows:

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<sup>1</sup> Application No. 08/299,360, filed September 1, 1994, now U.S. Patent No. 5,494,003, issued February 27, 1996. Assignors to Alzeta Corp, Santa Clara, California.

<sup>2</sup> Application No. 08/590,355, filed January 11, 1996. Assignors to American Water Heater Co. Accorded benefit of U.S. Application Nos. 08/333,871, filed November 3, 1994, now U.S. Patent No. 5,511,516, issued April 30, 1996; and 08/113,618, filed August 27, 1993, now abandoned.

Count 1

In a water heater having an upright cylindrical water tank with a flue pipe extending therethrough, a cylindrical metal skirt extending downward from the cylindrical wall of said tank for the support thereof, said skirt having a closed bottom end, and a gas burner positioned within said skirt, the improvement comprising a radiant gas burner in the form of a circular perforated ceramic flat plate fitted in said skirt as a transverse partition spaced from the bottom of said tank to provide a combustion zone and spaced from said closed bottom end of said skirt to provide a plenum for fuel gas and air injected therein, said ceramic flat plate having a diameter substantially equal to the inside diameter of said skirt and having perforations over its entire face except for a narrow rim portion by which it is supported in said skirt, refractory-type insulation surrounding said perforations as lining of said skirt between said rim portion and the bottom end of said tank and exposed to said combustion zone, and a venturi tube extending through said skirt into said plenum for the injection of said fuel gas and air.

The claims of the parties which correspond to this count are:

Bartz et al. (Bartz) : Claims 1-3 and 5-8

Moore, Jr. et al. (Moore) : Claims 65-71

U.S. Patent No. 5,494,003 to Bartz issued February 27, 1996. On February 10, 1997, Moore substantially copied claims 1-3 and 5-8 from the patent into its involved application for the purpose of provoking an interference with the patent, and this interference was declared on April 14, 1998 with count 1. Count 1 corresponds exactly to Moore claim 68.

Both parties took testimony, filed briefs and appeared for oral hearing.

The Issues

At page 6 of its brief, Bartz lists the issues as follows:

1. Is the invention of the count patentable to the senior party in view of the senior party's derivation of the invention from the junior party?
2. Did the junior party conceive and reduce to practice the invention defined by the count prior to the senior party's conception date of August 27, 1993?
3. Alternatively, are the parties to this interference joint inventors?

At page 1 of its brief, the senior party Moore acknowledges the above items as issues, and asserts to the effect that there are no other issues.

Bartz's Case for Priority

The record of the junior party is to the following effect.

In 1989, the California legislature was considering passing strict emissions requirements relating to carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>) for residential water heaters. Alzeta Corporation (Alzeta), for whom the junior party co-inventors worked, was in the business of producing burners for residential water heaters and saw a business opportunity.

Alzeta initiated a project that was to lead to the development of a water heater to satisfy the emissions requirements. On January 13, 1989, it sent a letter identified as Bartz Exhibit J6 (BX-J6) to the South Coast Air Quality Management District of California (SCAQMD), proposing the development of a radiant burner and an inspirator for residential water heaters that would produce low amounts of CO and NO<sub>x</sub> gases. The letter stated Alzeta's intention to develop and test both flat plate and cylindrical burner designs for inspirited (natural draft) and powered (fan or blower) water heaters, and to build a prototype to evaluate conformance of the water heaters with ANSI standards.

Alzeta's letter generated interest at SCAQMD and Southern California Gas Company (SCG). They agreed to provide funding for Alzeta's research and development project and suggested that American Appliance Manufacturing Corporation (now American Water Heater Corporation) be added to the project because American Water Heater Corporation (American) was the dominant manufacturer of water heaters in southern California at the time. In response, Alzeta contacted American and requested that it enter the project. American joined the project,

and Mr. Henry Moore, senior party co-inventor, was the primary contact at American during the entire period of American's involvement in the project.

Alzeta prepared a Phase 1 Proposal and sent the same to SCAQMD, SCG and Mr. Moore. The company established the overall objective of this project as developing a combustion system of lowest possible cost that will reduce NO<sub>x</sub> emissions from residential water heaters to levels close to 10ng/JUH. A further objective of the project was for Alzeta and American to demonstrate a production prototype water heater.

Phase I of the project began on October 1, 1989 and continued until February 28, 1991. During this time, Alzeta worked with a plurality of shapes and sizes of ceramic burners in an effort to achieve the project goals. Phase 2 began in March of 1991 and ended in September of 1992, and Phase 3 began on March 1, 1993 and ended in August of the same year.

Near the end of Phase 1, Alzeta prepared a Phase 2 Proposal dated December 3, 1990, and submitted the proposal to those involved in the project. The proposal states that "Alzeta will focus on burner and inspirator performance while American Appliance will focus on tank and controls performance" (BX-J8). During Phase 2, Alzeta determined that a flat plate burner was a possible solution to the problem.

In September 1992, Alzeta prepared and forwarded a Phase 3 Proposal to Moore. The Phase 3 Proposal indicates that it would be Alzeta's responsibility to develop a flat plate low NO<sub>x</sub> burner (BX-J9). The proposal includes a table that sets forth performance specifications for the burner being developed by Alzeta. Moore endorsed the Phase 3 Proposal by way of a letter to SCAQMD dated December 7, 1992 (BX-J13). In this letter, Moore indicated that American's responsibilities and contributions in Phase 3 will include a supply of water heaters for field

testing and for lab testing at American and Alzeta, installation of field test units, DOE and ANSI testing of lab units, conducting tests in its own lab, and management support of the entire effort.

During Phase 3 and prior to March 1993, Alzeta developed a series of flat plate ceramic burners in an effort to achieve the performance objectives set forth in the Phase 3 Proposal. This burner design was called the "E" burner, and it met the performance specifications of the Phase 3 Proposal. The E burner was a circular ceramic flat plate burner of about 14 or 15 inches in diameter, which made it substantially equal to the inside diameter of a standard sized water heater skirt. The burner was designed to include perforations over its entire face except for a narrow rim portion. This was done to provide enough holes to maximize airflow and minimize pressure drop while still maintaining structural stability.

Prior to May 1, 1993, Alzeta was developing a low emissions burner for use in a water heater having an upright cylindrical water tank with a flue pipe extending therethrough, a cylindrical metal skirt extending downward from the cylindrical wall of the tank for the support thereof, the skirt having a closed bottom end, and a gas burner positioned within the skirt. Development focused on a radiant gas burner in the form of a circular perforated ceramic flat plate (E burner). The burner had a diameter of 14 or 15 inches, which was substantially equal to the 16 inch inside diameter of the skirt. The E burner had perforations over its entire face, except for a narrow rim portion, and it was to be used in a water heater with a venturi tube extending through the skirt and into the plenum below the burner for the injection of fuel gas and air. The co-inventor, Martin Carswell, had also incorporated refractory-type insulation around the ceramic flat plate burners which he tested.

A meeting was scheduled for May 1, 1993 in which representatives from Alzeta, Richard Kendall and Richard Pam, and representatives from American, Henry Moore and Michael Watt,

met to discuss the progress made by the parties during Phase 3 of the project. Alzeta disclosed the E burner to American at the May 1, 1993 meeting or shortly before the meeting. It was disclosed to American that the burner had a diameter substantially equal to the inside diameter of the skirt of the water heater, that it had perforations over its entire face except for a narrow rim portion and that a venturi tube was to extend through the skirt for the injection of fuel gas and air. American was unaware of the reasons or theory behind the use of a ceramic burner in combination with a lining of insulation to reduce NO<sub>x</sub>. In the meeting, American disclosed to Alzeta a water heater design in which a metal screen burner was used in a 50-gallon water heater. The bottom of the American water heater was used as a plenum. However, American was having problems with the metal screen burner overheating the water heater skirt wall, and expressed a desire to keep the edge temperature of the burner below 350°F so that inexpensive insulation could be used around the outside of the skirt portion of the water heater.

#### The Position of Bartz

Bartz argues that the testimony and corroborating documents establish that it conceived the invention of the count and that the senior party derived the critical elements from disclosures made by Alzeta at the meeting of May 1, 1993. It is urged that if the senior party contributed any elements, those elements were obvious in view of the elements communicated to the senior party by Bartz, and do not entitle the senior party to claim inventorship. The junior party submits that it is the inventor of a radiant gas burner in the form of a circular perforated ceramic flat plate, the ceramic flat plate having a diameter substantially equal to the inside diameter of a water heater skirt and having perforations over its entire face except for a narrow rim portion.

Bartz contends that the count can be divided into seven elements, as shown in BX-J2. The count, as divided by Bartz in the above exhibit, reads as follows:

In a water heater having an upright cylindrical water tank with a flue pipe extending therethrough, a cylindrical metal skirt extending downward from the cylindrical wall of said tank for the support thereof, said skirt having a closed bottom end, and a gas burner positioned within said skirt, the improvement comprising

1. a radiant gas burner in the form of a circular perforated ceramic flat plate
2. fitted in said skirt as a transverse partition spaced from the bottom of said tank to provide a combustion zone and spaced from said closed bottom end of said skirt to provide a plenum for fuel gas and air injected therein,
3. said ceramic flat plate having a diameter substantially equal to the inside diameter of said skirt and
4. having perforations over its entire face except for a narrow rim portion
5. by which it is supported in said skirt,
6. refractory-type insulation surrounding said perforations as lining of said skirt between said rim portion and the bottom end of said tank and exposed to said combustion zone, and
7. a venturi tube extending through said skirt into said plenum for the injection of said fuel gas and air.

It is urged that the junior party developed elements 1, 3, 4 and 7 and disclosed them to the senior party at the May 1, 1993 meeting.<sup>3</sup> Elements 2 and 5 of the count describe using the burner to partition the skirt into the combustion chamber and the plenum and, according to the junior party at page 19, lines 14-17, this was an obvious construction given the large diameter of the E burner. It is urged that element 6 is also obvious, depending on the use for which the insulation is used.

The party Bartz further argues that because the senior party derived elements 1, 3, 4 and 7 of the count from Bartz, and added only elements which were well known in the art and which would be obvious in view of Bartz's disclosures, the senior party is not entitled to patent the invention of the count. Bartz submits that for purposes of the senior party's application, the

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<sup>3</sup> As noted below, Bartz also developed or conceived element 6 of the count prior to the meeting of May 1, 1997.

combination of elements disclosed by Alzeta to the senior party at the May 1, 1993 meeting constitutes prior art under 35 U.S.C. § 102(f). The combination of those elements with the other prior art showing the elimination of the double wall when the plenum becomes substantially the diameter of the skirt and, perhaps, the refractory type insulation, renders the Moore claims obvious under 35 U.S.C. § 103. Subject matter derived from another not only is itself unpatentable to the party who derived it under § 102(f), but, when combined with other prior art, may make a resulting obvious invention unpatentable to that party under a combination of §§ 102(f) and 103. Purportedly, the party Moore has failed to present any evidence rebutting testimony of the party Bartz that any elements added by Moore are obvious in view of the critical elements contributed by Bartz and, thus, Moore is foreclosed from patenting its claims corresponding to the count.

#### OPINION

##### Bartz's Case for Priority

To establish conception, it must be shown by corroborated evidence that the party was in possession of every feature of the count and that every limitation of the count was known to the inventors at that time. Hitzeman v. Rutter, 243 F.3d 1345, 1354, 58 USPQ2d 1161, 1167 (Fed. Cir. 2001). Coleman v. Dines, 754 F.2d 353, 359, 224 USPQ 857, 862 (Fed. Cir. 1985). Activity alleged to supply proof of conception of an invention defined in a given count must include all of the limitations of the count since each express limitation is considered material and cannot be disregarded. Schur v. Muller, 372 F.2d 546, 551, 152 USPQ 605, 609 (CCPA 1967). Whereas, it is not established that Bartz was in possession of a water heater comprising elements 1, 3, 4, 6 and 7 of the count in combination with elements 2 and 5 at the time of the May 1, 1993 meeting, we are of the opinion that Bartz was not in possession of the subject matter of the count

at that time. The testimony of David Bartz at pages 22 and 23 of Bartz's record (BR-22, 23), paragraphs 9 and 10, that of Martin Carswell at BR-32, 33 , paragraphs 9 and 10, that of corroborating witness, Kendall, at BR-2, 3, paragraphs 9 and 10, and that of corroborating witness, Pam, at BR-11, 12, paragraphs 10-12, establish that count elements 1, 3, 4, 6 and 7 were known to the junior party. However, the junior party does not contend, and we do not find, that it was in possession of features 2 and 5 of the water heater defined by the count.<sup>4</sup> All seven elements of the count may well have been discussed at the meeting and known to those attending the meeting, but there is no evidence establishing that the junior party conceived of a water heater unit at that time comprising all seven elements. It is not established that elements 1, 3, 4 and 7 were discussed with respect to a complete water heater as defined in the count; elements 2 and 5 were discussed with respect to a water heater built by American having a metal screen burner, not a ceramic burner.<sup>5</sup>

BX-11 does not establish conception by the junior party no later than May 14, 1993. This exhibit is identified as a memorandum by Richard Pam of the May 1, 1993 meeting. Although it relates to elements 1-6 of the count, it is silent as to element 7. Furthermore, it does not describe a single water heater embodiment comprising all of the elements of the count.

#### Derivation by Moore

To establish derivation, there must be a complete conception of the invention in order to disclose it to another. Davis v. Reddy, 620 F.2d 885, 889, 205 USPQ 1065, 1069 (CCPA 1980). Here, the party Bartz did not establish its conception at the time of the May 1, 1993 meeting and, accordingly, it cannot establish communication of the invention to the party Moore at that time.

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<sup>4</sup> At page 9, lines 14-21, the junior party argues to the effect that elements 2 and 5 would have been obvious to add to a water heater having elements 1, 3, 4 and 7.

<sup>5</sup> It is not clear from the evidence that refractory-type insulation comprising element 6 was discussed at the meeting with any degree of specificity.

Bartz's Standing

Bartz does not allege any other date of communication of the invention to Moore prior to Moore's date of August 27, 1993. Nor does the evidence show that any testing of the invention by the senior party subsequent to May 1, 1993 inures to the benefit of the party Bartz. Bartz had no conception of the invention as of May 1, 1993, and at page 18 of its brief, the junior party admits that it was the senior party who, when presented with the junior party's E burner at that time, ordered its immediate delivery. Thus, any work performed by the senior party in producing and testing a water heater with an E burner subsequent to May 1, 1993 was due to its own initiative, not at the direction of the junior party. Lastly, Bartz does not contend that it was first to conceive the subject matter of the count and reasonably diligent from just prior to Moore's entry into the field to a subsequent reduction to practice, actual or constructive, and cannot prevail on that basis.

Based on this standing of Bartz, the party Moore is entitled to prevail on the issues of priority and derivation.

Motions of the Parties

In view of the above findings, the motion of Bartz filed September 5, 2000 to suppress the senior party's evidence (Paper No. 59) and the motion of Moore filed November 17, 2000 to disregard Bartz's reply to Moore's opposition to Bartz's motion to suppress evidence (Paper No. 69) are dismissed as moot.

Patentability of Moore's Involved Claims

Under 35 U.S.C. §§ 102(f)/103

The party Bartz asserts that because the senior party derived critical elements 1, 3, 4 and 7 of the count from the junior party at the meeting on May 1, 1993 and added only elements

which were well known in the art and which would have been obvious in view of the junior party's disclosures, the senior party is not entitled to patent the invention of the count.

This issue is dismissed as belatedly raised. A party shall not be entitled to raise for consideration at final hearing any matter which properly could have been raised by a motion under 37 CFR § 1.633 unless the matter was properly raised in a motion that was timely filed by the party under § 1.633 and the motion was denied or deferred to final hearing. 37 CFR § 1.655(b). At the beginning of the preliminary motions period, the party Bartz was obviously aware of the alleged communication it made of count elements 1, 3, 4 and 7, and is charged with knowledge of the evidence upon which it contends the other elements of the count were known and, along with the communicated count elements, would have rendered the subject matter of the invention unpatentable to the senior party. Nevertheless, Bartz filed no motion for judgment under § 1.633(a) on this ground.<sup>6</sup> Nor has Bartz shown good cause why the issue was not properly raised by a timely filed motion. 37 CFR § 1.655(b).<sup>7</sup>

#### Joint Inventorship of the Parties

Lastly, the party Bartz argues that if it is not the sole inventor, the junior and senior parties are joint inventors.

This argument is dismissed as untimely. Although Bartz does not state what relief it seeks with respect to this argument, it apparently seeks a correction of inventorship in its

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<sup>6</sup> Bartz did file a timely motion for judgment under § 1.633(a) on a different ground (Paper No. 10). The motion was denied (Paper No. 34) and Bartz is not arguing the different ground for unpatentability at final hearing.

<sup>7</sup> Even if this issue were entitled to consideration at this time, it would have been denied on its merits. The prior art evidence upon which Bartz relies, testimony by Richard Martin and Douglas DeWerth and documents referred to therein, does not disclose the subject matter of element 2 of the count involving the specific combustion zone and plenum structure. Still further, even if this structure were taught in the prior art, no motivation is established why one of ordinary skill in the art would have combined that teaching with elements 1, 3, 4 and 7 of the count.

involved patent by adding Moore and Abalos or in Moore's involved application by adding inventors Bartz and Carswell. At page 25, lines 3-5, of its brief, Bartz contends that:

Nothing in the facts would indicate that there was a complete conception of the invention of the Count prior to the meeting on May 1, 1993, and it is clear that the parties left the meeting with a complete conception of the invention.

The party Bartz was aware of the facts surrounding the meeting since the time of the meeting.

However, it filed no timely motion under 37 CFR § 1.634 to correct inventorship.

Judgment

Judgment as to the subject matter of the count in issue is awarded to H. Jack Moore, Jr. and Martin Abalos, the senior party. On the present record, the party Moore et al. is entitled to a patent with claims 65-71 corresponding to the count. The party Bartz et al. is not entitled to its patent with claims 1-3 and 5-8.

STANLEY M. URYNOWICZ, JR.	)	
Administrative Patent Judge	)	
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JOHN C. MARTIN	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
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MURRIEL E. CRAWFORD	)	
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Interference No. 104,180

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