

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LOCO CRAZY GOOD COOKERS, INC.,
Petitioner,

v.

NORTH ATLANTIC IMPORTS, LLC,
Patent Owner,

Case IPR2024-00642
U.S. Patent No. 10,660,473

DECLARATION OF GLEN STEVICK, Ph.D., P.E.

EX2002
North Atlantic Imports, LLC
IPR2024-00642

I, Dr. Glen Stevick, declare as follows:

I. BACKGROUND

1. I am Glen Stevick, over 21 years of age, and competent to make this Declaration. This Declaration is based on facts and matters within my knowledge and on information provided to me by others. If called to testify, I could and would competently testify to the matters set forth herein.

2. I am retained as a technical expert witness in the above-captioned litigation by North Atlantic Imports, LLC (“Blackstone” or “Patent Owner”) to provide my independent opinions on certain issues requested by Counsel for the Patent Owner relating to the response to the Petition, including construction of certain terms in the claims of U.S. Patent No. 10,660,473 (the “’473 Patent”), alleged prior art, and non-obviousness.

3. I have reviewed and am familiar with the ’473 Patent, the ’473 patent prosecution history, and other documents listed in the “Materials Considered” section below.

4. My compensation is based on the time I spent working on my opinions related to this litigation. My compensation is not based on the substance of my opinions or on the outcome of this litigation. I have been informed that the ’473 Patent is owned by Blackstone. I have no financial interest in Blackstone, LoCo, or the outcome of this matter.

II. QUALIFICATIONS

5. In summary, I have more than 40 years of experience in engineering design and failure analysis of high temperature heaters, cooking devices, piping, vessels, and industrial equipment. Examples relevant to the subject case include the design, redesign, and retrofitting of fluidized catalytic cracking plants to increase the operating temperature of the regenerators from 1,200 degrees Fahrenheit to 1,400 degrees Fahrenheit.

6. My Curriculum Vitae and testimony list are included with this report. I obtained a Bachelor of Science in Mechanical Engineering from Michigan Technological University in 1980 and a Master of Science in Mechanical Engineering from the University of California, Berkeley in 1981. In 1989, I returned to the University of California, Berkeley and started Berkeley Engineering and Research, Inc. I completed my Ph.D. in Mechanical engineering from the University of California, Berkeley in 1993, concentrating in material behavior and design with minors in structural analysis and dynamics and controls. My Ph.D. thesis topic was on the failure of welds at elevated temperatures. My thesis was republished as a Welding Research Council Bulletin and led to changes in the American Society of Mechanical Engineers Piping codes regarding the design of welds for high temperature service.

7. Berkeley Engineering and Research, Inc. provides mechanical, civil, and electrical engineering services ranging from design and risk assessment consultation to accident investigations and expert testimony. I am a registered professional Civil and Mechanical engineer, and licensed in the states of California, Florida, Mississippi, and Texas.

8. I have consulted for General Dynamics regarding Abraham tank air heating and conditioning systems and Traeger Grill regarding risk assessment. I have also investigated dozens of fire incident cases involving barbecue grills, ovens, and heaters and have participated in several patent cases involving barbecue grills including one before the International Trade Commission.

9. I have taught mechanical engineering design at U.C. Berkeley including serving as an instructor for the department's senior design court "Mechanical Engineering Design." I have also conducted lectures on mechanical engineering topics including heat transfer, dynamics, and mechanism and force analysis.

10. Currently, I am a Principal and the Director of Berkeley Engineering and Research, Inc., working in the areas of failure analysis, design and risk assessment of consumer products, and industrial equipment involving mechanical, gas fired, and mechanical-electrical equipment.

11. I have testified as an expert witness regarding engineering on a number of occasions in State and Federal courts in the United States, the territory of Puerto Rico, Canada, and England. I have performed work in an expert capacity with respect to U.S. Patents for cooking structures and grills and I have served as a technical expert in more than a dozen other patent proceedings in the previous five years.

12. Berkeley Engineering and Research, Inc. is being compensated for my time at my standard consulting rate of \$650.00 per hour. My compensation is not contingent upon the substance of this report, any statements or opinions made, or the outcome of this matter.

MATERIAL CONSIDERED

13. In developing my opinions, I reviewed documents mentioned herein including the following materials:

- The '473 Patent and its prosecution history;
- The Petition, Patent Owner's Preliminary Response, Petitioner Reply to Patent Owner Preliminary Response, Patent Owner Preliminary Sur-Reply to Petitioner's Preliminary Reply, Decision Granting Institution of Inter Partes Review, and their associated exhibits;
- Deposition transcript of Dr. Glenn Valle;

- The Joint Claim Construction Brief and associated exhibits in the corresponding litigation pending before the U.S. District Court for the District of Delaware, *North Atlantic Imports, LLC v. LoCo – Crazy Good Cookers, Inc.*, No. 23-999-GBW-SRF, at Dkt. 67; and
- Blackstone’s infringement contention claim chart.

III. LEGAL FRAMEWORK

14. I am a technical expert and do not offer any legal opinions. However, I have been informed about certain legal principles regarding patentability and related matters under United States patent law, which I have applied in performing my analysis and arriving at my technical opinions in this matter.

A. Patentability

15. I am informed that for an invention claimed in a patent to be valid and patentable, it must be, among other things, new and not obvious in light of what was known and came before it. That which was known or came before the invention claimed is generally referred to as “prior art.”

16. I am informed that there are two ways in which prior art may render a patent claim unpatentable. First, the prior art can be shown to “anticipate” the claim. Second, the prior art can show that the claim was obvious to a person of ordinary skill in the art of the invention (“POSITA”) at the time the invention was made.

17. I have been informed and understand that a POSITA is a hypothetical person who is presumed to be aware of all pertinent prior art, thinks along conventional wisdom in the art, and is a person of ordinary creativity.

18. **Anticipation:** I am informed that a claim is anticipated if all of the elements, features or “limitations” of the claim are found expressly or inherently in a single prior art document or device. In general, prior art documents consist of publications and patents dated before the invention or more than one year before the filing of the patent application, as well as prior art devices that were on sale or in public use in this country before the invention or more than one year before the filing of the patent application.

19. **Obviousness:** I am informed that whether a claimed invention is obvious is a question of law, with underlying factual inquiries that are determined from the perspective of a POSITA at the time of the claimed invention.

20. I am informed that a claimed invention is obvious if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a POSITA.

21. I am informed that obviousness involves consideration of the following underlying factual inquiries:

- determining the scope and content of the prior art;

- ascertaining the differences between the claimed invention and the prior art;
- resolving the level of ordinary skill in the art; and
- evaluating objective evidence or “secondary considerations” of non-obviousness, if present, such as commercial success, long-felt but unresolved needs, failure of others, industry praise, and unexpected results.

22. I am informed that a reference must be analogous art to the claimed invention in order to be properly considered for use in an obviousness inquiry. I am informed that a reference is analogous art to the claimed invention if:

- the reference is from the same field of endeavor as the claimed invention (even if it addresses a different problem); or
- the reference is reasonably pertinent to the problem faced by the inventor (even if it is not in the same field of endeavor as the claimed invention).

23. I am informed that whether a reference is reasonably pertinent turns on how the problem faced by the inventor is reflected, either explicitly or implicitly, in the specification.

24. I am informed that the following are exemplary rationales that may support a conclusion of obviousness:

- Combining prior art elements according to known methods to yield predictable results;
- Simple substitution of one known element for another to obtain predictable results;
- Use of known techniques to improve a similar method or product in the same way;
- Applying a known technique to a known method or product ready for improvement to yield predictable results;
- Obvious to try – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art; and
- Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

25. In addition to the above, I am informed that a POSITA may resort to logic, judgment and common sense available to him or her at the time of the

invention to find a claim feature obvious, even if the prior art relied on does not explicitly state or teach that feature. I am informed that when common sense is relied on to find a feature obvious, the reasoning for that conclusion must be articulated with sufficient clarity.

26. Regarding “objective evidence” or “secondary considerations,” if present, I am informed that for such evidence to be relevant to the obviousness of a claim, there must be a causal relationship (called a “nexus”) between the claim and the evidence. I am also informed that such objective evidence may include: commercial success of products covered by the patent claims; long-felt need for the invention; failed attempts by others to solve the problem addressed by the invention; copying of the invention by others in the field; unexpected results achieved by the invention; praise of the invention; the taking of licenses under the patent by others; expressions of surprise by experts and those skilled in the art at the making or use of the invention; and that the patentee proceeded contrary to the accepted wisdom of the prior art.

27. I am informed that a POSITA is also a person of ordinary creativity. I am further informed that the obviousness analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, but, instead, can take into account “ordinary innovation” that does no more than yield

predictable results, which are inferences and creative steps that a POSITA would be understood to employ.

28. I am informed that sometimes it will be necessary to look to interrelated teachings of multiple patents and publications; the effects of demands known to the relevant field or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art. I am informed that all these issues may be considered to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

29. I understand that in an inter partes review, the petitioner shall have the burden of proving a proposition of unpatentability, including a proposition of obviousness, by a preponderance of the evidence.

B. Claim Construction

30. I understand that the words of a claim are generally given their plain and ordinary meaning. I understand that the plain and ordinary meaning of a term is the meaning that the term would have had to a person having ordinary skill in the relevant art at the time or closely before the effective filing date of the invention.

31. I understand that the interpretation of a claim term may deviate from the plain and ordinary meaning when a patentee sets out a definition and acts as his

own lexicographer or when the patentee disavows the full scope of a claim term either in the specification or during prosecution.

32. I understand that the claims are the most important tool in determining the meaning of the claims. I understand that other helpful tools include the specification, figures, other patents in the same patent family, and the prosecution history. I understand the aforementioned tools to constitute the intrinsic evidence, and the intrinsic evidence is the most important evidence in construing a claim.

IV. LEVEL OF ORDINARY SKILL IN THE ART

33. The '473 Patents defines its field of invention as follows:

The present invention relates generally to gas heated outdoor cooking stations and, more specifically, the present invention relates to a griddle cooking station with controlled region heating and controlled convection heat flow.

(Ex. 1001 at col. 1, lns., 15-18.)

34. In particular, the claims of the '437 patent are directed to, among other things, the use of integrally formed ribs on the underside of a griddle to define multiple heating regions.

35. I am familiar with the knowledge and capabilities of one of ordinary skill in the art of outdoor cooking stations and griddles. A person with ordinary skill in the art of outdoor cooking stations recognizes and understands the nuances of thermal loading and heat resistance dynamics inherent in developing cooking appliances. Therefore, it is my opinion that the relevant level of ordinary skill in

the art includes at least 2 years of design, development, or analysis experience with griddles or outdoor cooking stations.

36. I have more than 40 years of experience in engineering design and failure analysis of high temperature heaters, cooking devices, piping, vessels, and industrial equipment. I understand the nuances of thermal loading and heat resistance as evidenced by my thesis on the failure of welds at elevated temperatures. Thus, I am a person having at least ordinary skill in the art.

V. ASSERTED '473 PATENT AND ITS PROSECUTION HISTORY

A. Description of the '473 Patent

37. I have reviewed the '473 Patent, which discloses a system, device, and method for controlling convective heating of a griddle. '473 Patent, 1:1-4. The '473 Patent describes a system, device, and method that is stronger and better integrated than the state of the art prior. The added strength comes from structurally integrated ribs. '473 Patent, 8:12-16. These ribs prevent griddle warping, provide temperature control of distinct regions of the griddle surface, and control conductive heat around the periphery of the griddle to enhance safety. '473 Patent, 7:49-53.

38. The claims of the '473 Patent are directed to cooking systems with at least the following:

- a frame extending with a front side, a rear side, a left side, and a right side each extending between a lower portion and an upper portion.

'473 Patent, 10:20-22.

- a griddle sized to be suspended by the frame to be positioned on the upper portion of the frame . . . the griddle including a front rib and multiple lateral ribs, the front rib extending along the front end of the underside surface, and the multiple lateral ribs extending along the underside surface, the multiple lateral ribs being spaced from each other so as to define multiple heating regions such that the heating region is defined between adjacently extending lateral ribs extending along the underside surface from the front rib to the rear end of the underside surface. '473 Patent, 10:25-34.
- wherein the front rib and the multiple lateral ribs are integrally formed with the underside surface of the griddle. '473 Patent, 10:45-47.
- wherein the multiple lateral ribs directly extend from the underside surface of the griddle such that each lateral rib is spaced and separate from an adjacent lateral rib. '473 Patent, 10:47-50.

39. The griddle ribs (i.e. the front rib, lateral ribs, and entire ribbing structure) “may also serve as stabilizers in substantially preventing the griddle from warping or partially warping.” '473 Patent, 7:45-53.

B. Description of Portions of the '473 Patent Prosecution History

40. In its initial rejection of the claims in the application for the '473 Patent under examination, the U.S. Patent and Trademark Office asserted that U.S. Patent No. 4,715,356 (“Reynolds”) anticipated many of the claims. (Exhibit 1004, at 92–99, 10/10/2019 Non-Final Rejection.) Specifically, the examiner asserted that “baffles” in Reynolds satisfied the claim limitations regarding “ribs.” *Id.* at 3-6.

41. In response to the non-final office action, the applicant amended the claims to require ribs “integrally formed with the underside surface of a griddle”:

Amendments to the Claims:

Please amend claims 1, 10, and 17, as set forth below.

Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A cooking system, comprising:
a frame extending with a front side, a rear side, a left side, and a right side each extending between a lower portion and an upper portion;
multiple burners coupled to and extending between the front side and the rear side of the frame; and
a griddle sized to be suspended by the frame to be positioned on the upper portion of the frame, the griddle having a cooking surface and an underside surface, the underside surface extending to define a rectangular shape with a front end, a rear end, a left end, and a right end, the griddle including a front rib and multiple lateral ribs, the front rib extending along the front end of the underside surface, and the multiple lateral ribs extending along the underside surface from the front rib to the rear end of the underside surface, the multiple lateral ribs being spaced from each other so as to define multiple heating regions such that each heating region is defined between adjacently extending lateral ribs, each of the heating regions includes one of the multiple burners positioned below one of the multiple heating regions, each of the lateral ribs extend downward from the underside surface a height so as to funnel convection heat from any one of the multiple burners toward the rear end of the underside surface of the griddle and from the rear side of the frame;
wherein the front rib and the multiple lateral ribs are integrally formed with the underside surface of the griddle; and
wherein the multiple lateral ribs directly extend from the underside surface of the griddle such that each lateral rib is spaced and separate from an adjacent lateral rib.

(Exhibit 1004 at 130–134, 1/10/2020 Amendment.)

42. The applicant traversed the rejections, specifically noting that Reynolds did not describe the claimed ribs. Rather, Reynolds relied upon described a griddle “resting on or suspended above the radiant panels/flanges.”

(Exhibit 1004 at 126–127.) Additionally, the applicant noted that the radiant panels were “for the purpose of radiating heat toward the griddle” and unlike the integrally formed ribs of the claimed griddle in the application for the ’473 Patent. (*Id.*)

43. The claims were subsequently allowed as amended. The ’473 Patent issued on May 26, 2020.

VI. OPINIONS

44. My opinions set forth in this declaration are provided below.

A. The plain and ordinary meaning of the term “rib” is structural unlike “baffle.”

45. As one of at least ordinary skill in the art, I understand the plain and ordinary meaning of the term “rib” to be consistent with its meaning in everyday use, which is structural. “Rib” does not carry a unique or counter-intuitive technical definition and should be construed as having the same meaning it has in everyday use.

46. In the mechanical engineering context and the context of the ’473 Patent, a rib provides structure and helps maintain a desired shape. Its primary purpose is to support or strengthen a structure, usually by running through the structure and acting as an anchor to the structure. For example, the word rib is often used in connection with rib-reinforced shell structures, wherein ribs are used to reinforce shells in areas of high stress.

47. The structural meaning of rib in the engineering context is similar to the lay meaning as well. The New Oxford American Dictionary (2003), submitted as Exhibit 2003, defines “rib” as “a long raised piece of stronger or thicker material across a surface or through a structure, and typically serving to support or strengthen it” while the Collins English Dictionary (2014), submitted as Exhibit 2005, defines “rib” as “a part or element similar in function or appearance to a rib, esp. a structural or supporting member or a raised strip or ridge.” In the mechanical engineering context, the structural support nature is the same, and Goodwill’s Dictionary of Mechanical Engineering, submitted as Exhibit 2004, defines “rib” as “a flange or fillet carried around the edges of or across a casting or piece of plated work, in order to strengthen and support an otherwise weak web.” Online dictionaries for engineering provide yet more similar definitions regarding the structural nature of a “rib,” for example, EngNet defines it as “an elongated projection on a shape, forging or casting to provide stiffening,” and the Metal Fabricating Glossary defines it as “a long V-shaped or radiused indentations used to strengthen large sheet metal panels,” submitted as Exhibits 2006 and 2007. These dictionaries emphasize the strength and rigidity of a rib and its purpose of supporting another structure.

48. Additionally, Shigley’s Mechanical Engineering Design is a well-respected mechanical engineering text used to teach mechanical engineering

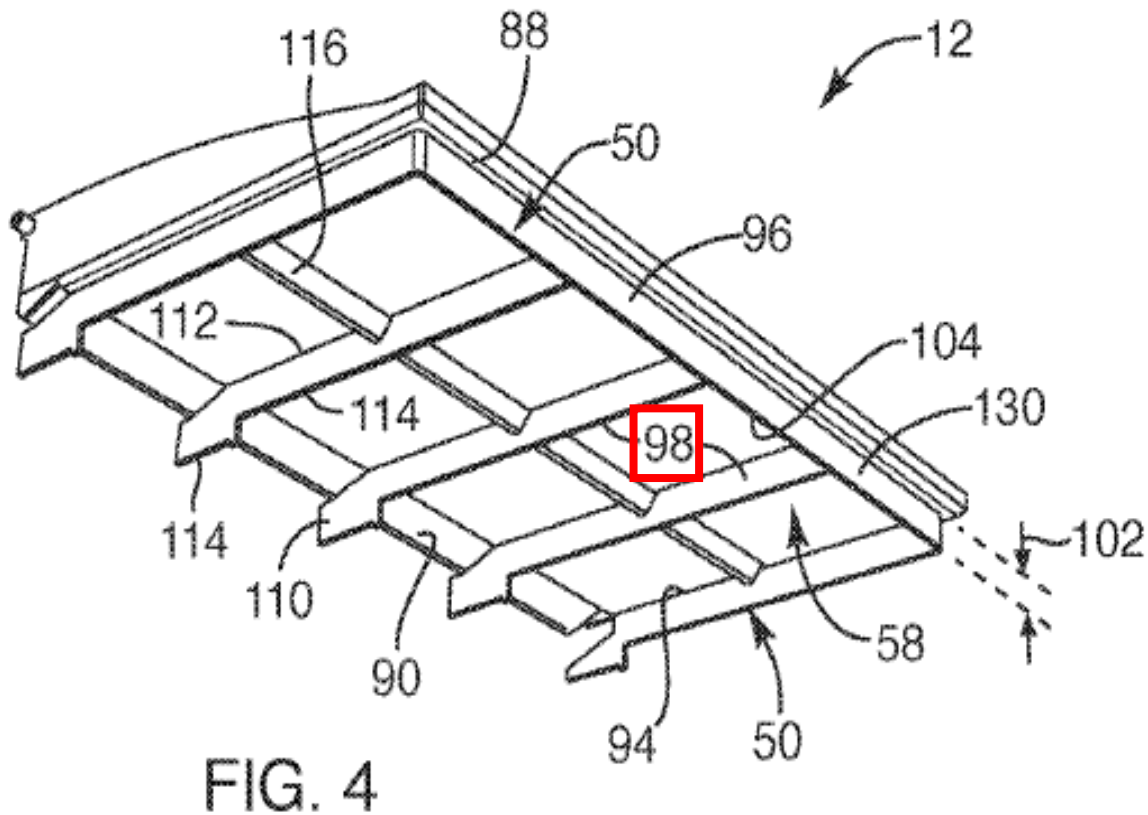
students. Shigley also uses the term “rib” consistent with its ordinary meaning as a structural support. For example, in connection with Figure 3-25 on page 122, which was submitted as Exhibit 1018 and is page 42 of the pdf exhibit, Shigley shows a cross section of an elliptical tube in connection with stress equations and notes that the “equations presume the buckling of the tube is prevented by ribs, stiffeners, bulkheads, and so on, and that the stresses are below the proportional limit.”

49. The '473 Patent uses “rib” consistent with its plain and ordinary meaning. For example, both the “front rib” and “multiple lateral ribs” are described as components of a “ribbing structure.” '473 Patent at column 7, lines 8-10. The '473 Patent discloses that the “ribs” and “ribbing structure” as a whole “may serve as stabilizers in substantially preventing the griddle from warping or partially warping.” '473 Patent at column 9, lines 48-53. This use of “rib” draws on the structural meaning of “rib” because the ribs in the patent stabilize the griddle and prevent it from warping due to high heat. Thus, there is a structural purpose for these “ribs.”

50. It is my opinion that the qualifier “may” from the foregoing passage in the '473 Patent indicates that that the multiple lateral ribs described would generally reinforce the griddle generally in one direction, insofar as they run in one direction. This is in contrast to ribs in a grid pattern that could provide

reinforcement in multiple directions. Notwithstanding that the claimed lateral ribs may not reinforce a griddle in all directions, the use of “rib” in the ’473 Patent is still consistent with its ordinary meaning as providing structural support because there is no indication that the inventor intended to use the term counter to its ordinary meaning (e.g., for a thin non-supportive elements such as a mere “baffle” under the griddle surface).

51. An example figure including the ribs 98 is included below.



(Ex. 1001, ’473 Patent, at FIG. 4.)

52. Further, the prosecution history of the '473 Patent indicates that the applicant amended the claims to clarify that the “ribs” are “integrally formed with the underside surface of a griddle,” consistent with their reinforcement function.

B. None of the prior art relied on in the Grounds discloses integrally formed ribs on the underside of a griddle.

Williams

53. The Petitioner relies on U.S. Patent No. 6,389,960 (“Williams”) in each of its prior art combinations, but a person having ordinary skill in the art would **not** understand Williams’ “sidewalls,” “flow-restricting wall,” “front dam,” or “rear dam” to be structural like the ribs in the '473 Patent.

54. Williams identifies the walls and dams as being baffles for the purpose of restraining air-flow. (Ex. 1005 at col. 3, ln. 57 col 4, ln. 33).

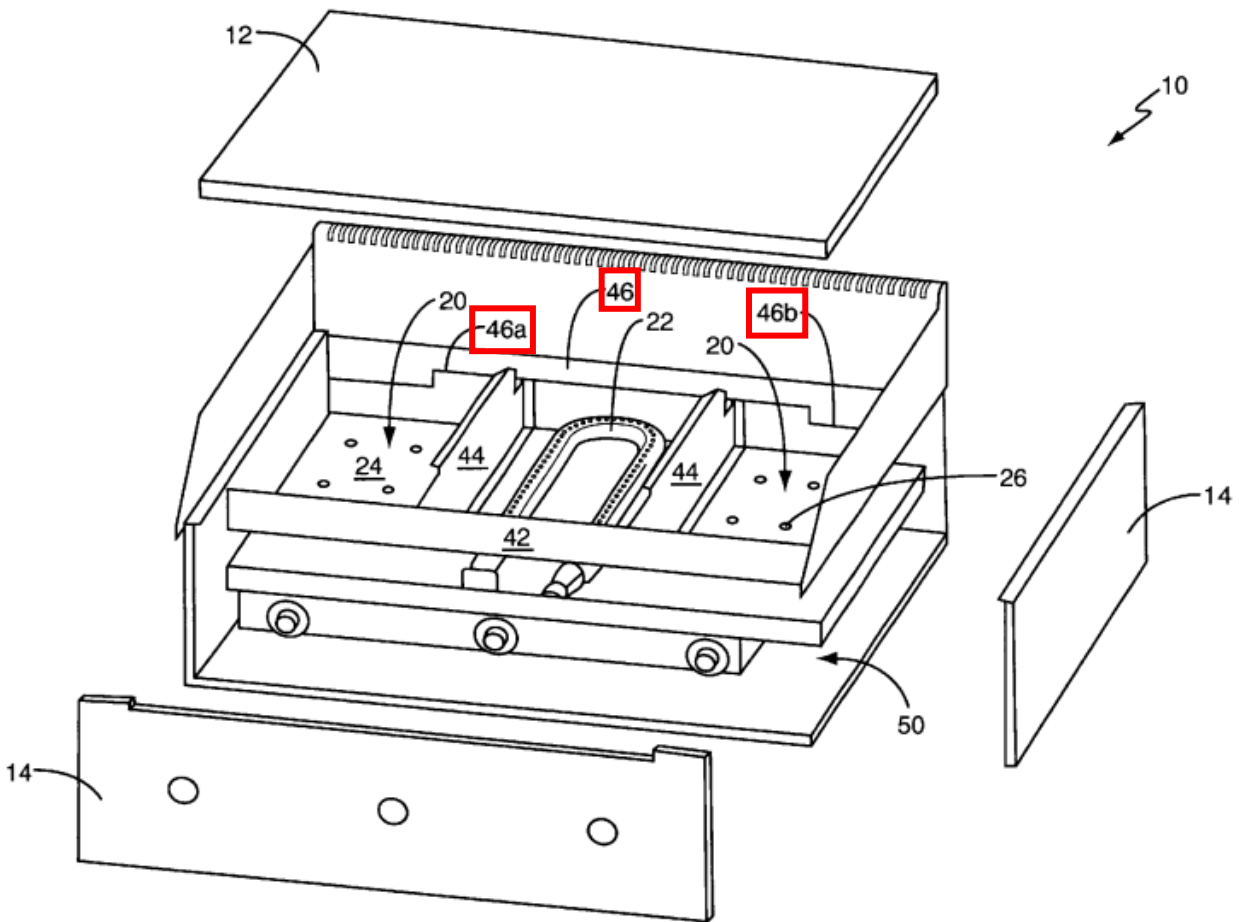


FIG. 2

55. Williams specifically identifies the purpose of the walls and dams as “a heat bank to provide a more uniformly heated cooking surface.” (Ex. 1005 at col. 1, lns. 7–9.) Nowhere does Williams mention that the walls or dams are used in a structural manner, or to support or strengthen the griddle. It is not surprising then that the walls and dams are not referred to as “ribs.”

56. Thus, it is my opinion that a person of ordinary skill in the art would understand Williams’ walls and dams to be baffles with an air-flow-restriction function and to be constructed of relatively thin material.

57. One of ordinary skill in the art would not understand the walls and dams to be reinforcing, or structural like the claimed “ribs” in the claims of the ’473 Patent. In this context baffles are meant to control airflow, and only minimal material is necessary for baffles to perform this function. Accordingly, baffles are generally thin sheets of metal, which reduces their costs in manufacturing, they are generally not relied on at all for structural support. When reduction of material costs is a consideration, baffles are generally reduced in size and thickness as much as possible, while maintaining the basic function of blocking or directing airflow.

58. A person having ordinary skill in the art would not be motivated to modify the airflow control walls, dams, or baffles to make them thick enough to provide meaningful structural reinforcement to the griddle. Doing so would be a waste of resources and manufacturing expenses because baffles do not need to be thick or strong to provide their airflow restriction function.

59. I have reviewed Dr. Valle’s alleged reasons for a person of ordinary skill in the art to modify the airflow control walls or dams to integrally form them with a griddle plate.

60. First, Dr. Valle asserts that a person of skill in the art would integrally form the side walls, dams, or baffles to better thermally couple them to the griddle. Valle Declaration at ¶ 87. Dr. Valle does not provide a reason to want to increase thermal coupling between those elements, and in fact many times such coupling

would run counter to the very purpose of the walls, dams, or baffles. Williams' airflow control walls and dams are meant to isolate different chambers or zones of a griddle corresponding to different burners. The griddle is heated by the heated air below it. There is no particular reason to want to transfer heat from the cooking surface of the griddle to the baffles below it, or for the baffles themselves to transfer heat at their attachment point to the griddle. Indeed, the very thin nature of baffles (including their typical formation from sheet metal or the like) and resulting small thermal mass of the baffles makes heat transferring heat through baffles inefficient. The goal of Williams is uniform heating of the griddle, which is best accomplished by uniformly heated air beneath the griddle and thin baffles to restrict the airflow while minimally contacting the griddle surface so that the contact of the griddle with the heated air is maximized.

61. Second, Dr. Valle asserts that a person of skill in the art would understand that integrally forming the side walls, dams, or baffles with the griddle would “greatly strengthen” the griddle. Valle Declaration at ¶ 88. Dr. Valle recognizes that the side walls, dams, or baffles of Williams are relatively thin. Valle Declaration at ¶ 92. Attaching thin baffles, such as the side walls or dams of Williams, would do very little to strengthen the griddle. In fact, any deformation of the griddle would likely fracture the thin side walls, dams, or baffles if they were integrally formed with the griddle because the thin material would have little

resistance against such deformation stresses. Ribs, on the other hand, are much more substantial and are not relatively thin as described by Dr. Valle and the prior art references.

62. Third, Dr. Valle asserts that a person of skill in the art would integrally form the side walls, dams, or baffles to eliminate any gap between the griddle and the walls, dams, or baffles. Valle Declaration at ¶ 91. But there is no meaningful gap between the baffles and the griddle plate in Williams, and one of ordinary skill can rest a griddle plate atop baffles with no meaningful gap therebetween. Figure 2 of Williams appears to show gaps in the sidewalls themselves between the regions, and insignificant gaps between the griddle plate and baffles, even if present, would have little effect on the overall airflow restriction function of the baffles in Williams. Integrally forming the baffles with the griddle, on the other hand, potentially introduces problems or failure points. Again, baffles are relatively thin compared to the griddle. They will heat though quicker than the thicker griddle plate creating a temperature disparity between the griddle and the baffles, which will cause thermal stress along the junction between the two. Often such disparately heated materials are not coupled in order to allow for free expansion. A simple example is thermal expansion joints in a sidewalk to prevent help prevent fractures as a heated sidewalk expands. Shigley's Mechanical Engineering Design also includes a caution against joinder of materials when thermal stresses are

involved. EX2008 at Example 9-7, page 495 (“The significance of the thermal stresses serves as a caution against joining dissimilar adherends when large temperature changes are involved.”). The dissimilarity in thickness and thermal capacity of the griddle plate in comparison with the relatively thin side walls, dams, or baffles would not so easily be dismissed by a person of ordinary skill in the art and cause them to integrally form such thin baffles with the griddle.

63. Fourth, Dr. Valle asserts that a person of skill in the art would integrally form the side walls, dams, or baffles to strengthen the baffles themselves. Valle Declaration at ¶ 92. While integrally forming the baffles with the griddle would do very little to strength the griddle, integrally forming the griddle with the baffles would cause undo stress on the baffles during thermal expansion by restricting the free expansion of the baffles during heating. This would actually increase the potential for stress fractures in the baffles.

64. Finally, Dr. Valle asserts that a person of skill in the art would integrally form the side walls, dams, or baffles to reduce assembly time and errors by the end user. Valle Declaration at ¶ 95. Disregarding the increase in assembly time and costs during manufacturing, even assuming decreased assembly time for an end user, integrally forming relatively thin baffles on the underside of a griddle would increase the potential for damage to the baffles. In particular, side walls, dams, and baffles are not structural, they are not designed to support the weight of

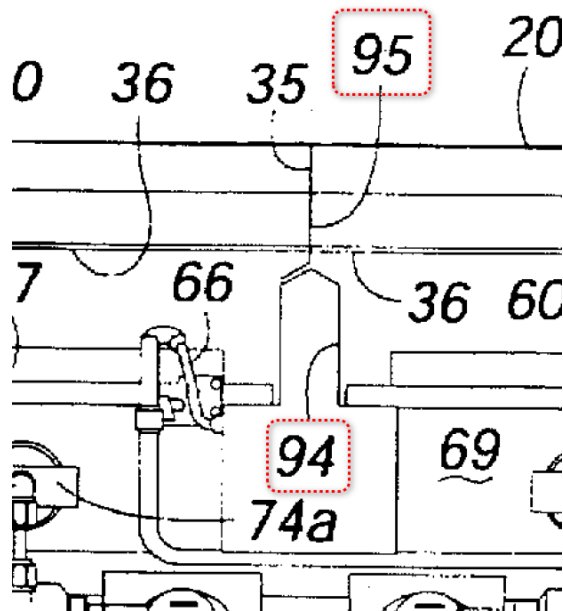
a griddle. Resting the griddle on the baffles alone would likely crush and deform the baffles. End users would need to exercise much more care to avoid damaging integrally formed baffles as opposed to baffles that are separately attached to a burner box and not in danger of being crushed by the weight of a griddle.

Additionally, one of skill would not be motivated to increase the size, thickness, and stability of the baffles due to the increase costs to doing so. Baffles are thin because they need not be thick to or substantial to achieve their airflow control purpose and using lightweight, less expensive material for such baffles is greatly preferred to reduce weight and cost.

Best

65. The Petitioner also relies on U.S. Patent No. 5,676,043 (“Best”) with respect to the “integrally formed rib” elements in the claims of the ’473 Patent; but a person having ordinary skill in the art would not understand Best’s “baffles” to constitute a structural support like the ribs in the ’473 Patent.

66. Best’s description of its baffles identifies them as being for the purpose of restraining insulating heat from one burner to the other (that is by controlling air-flow). (Ex. 1007 at col. 3, ln. 57 col 4, ln. 33).



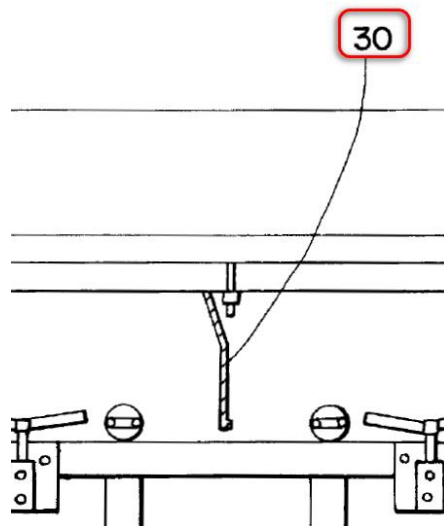
67. Nowhere does Best mention that the baffles are used as structure, or to support or strengthen the griddle. It is not surprising then that the baffles are not referred to as “ribs.”

68. Thus, it is my opinion that a person of ordinary skill in the art would understand Best’s baffles to be constructed of relatively thin material with an air-flow-restriction function. One of ordinary skill in the art would not understand the baffles to be reinforcing, or structural like the claimed “ribs” in the claims of the ’473 Patent. As set forth above, a person having ordinary skill in the art would not be motivated to modify the baffles to make them thick enough to provide meaningful structural reinforcement to the griddle. Doing so would be a waste of resources and manufacturing expenses because baffles do not need to be thick or strong to provide their air-flow-restriction function.

Farnsworth

69. The Petitioner also relies on U.S. Patent No. 5,890,482 (“Farnsworth”) with respect to the “integrally formed rib” elements in the claims of the ’473 Patent; but a person having ordinary skill in the art would not understand Farnsworth “baffles” to be structural supports like the ribs in the ’473 Patent.

70. Farnsworth gives limited description to its baffles stating that they are only positioned between each pair of burners. Despite the limited disclosure, the use of the word “baffle” identifies them as being for the purpose of restraining insulating heat from one burner to the other (that is by controlling air-flow). (Ex. 1008 at col. 3, lns. 17–19.)

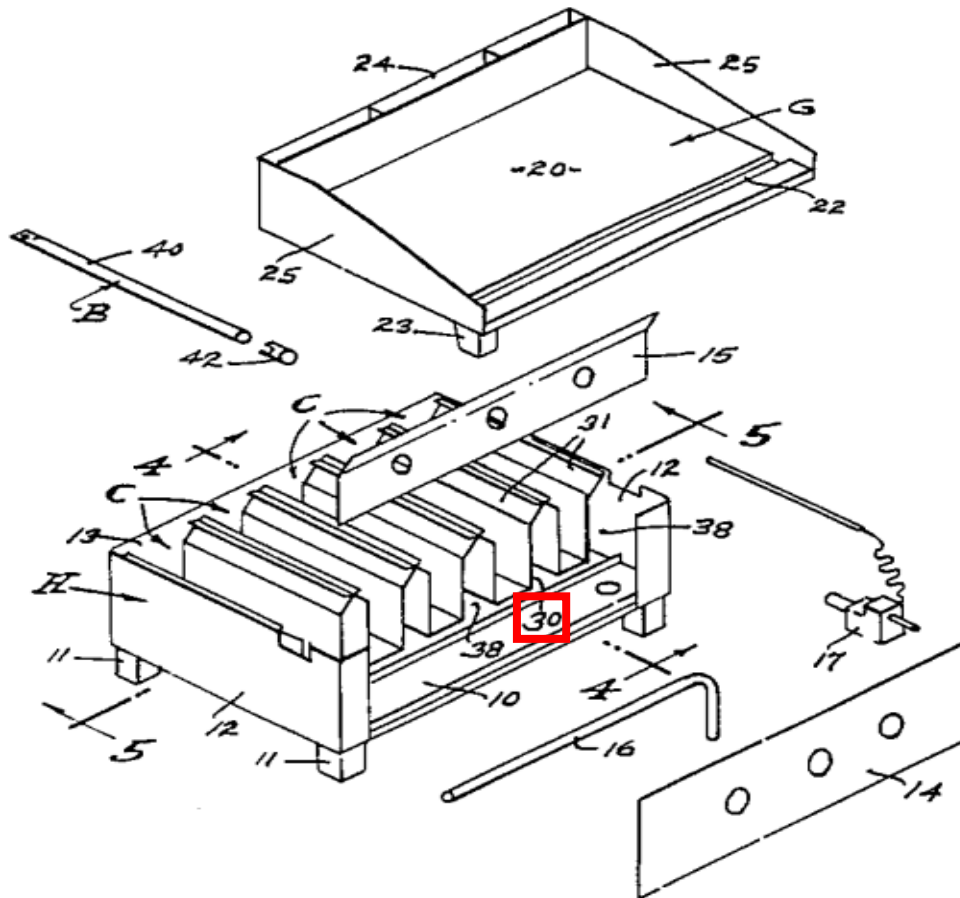


71. Nowhere does Farnsworth mention that the baffles are used as structure, or to support or strengthen the griddle. It is not surprising then that the baffles are not referred to as “ribs.”

72. Thus, it is my opinion that a person of ordinary skill in the art would understand Farnsworth’s baffles to be constructed of relatively thin material with an air-flow-restriction function. One of skill in the art would not understand the baffles to be reinforcing, or structural like the claimed “ribs” in the claims of the ’473 Patent. As set forth above, a person having ordinary skill in the art would not be motivated to modify the baffles to make them thick enough to provide meaningful structural reinforcement to the griddle. Doing so would be a waste of resources and manufacturing expenses because baffles do not need to be thick or strong to provide their air-flow-restriction function.

Reynolds

73. Similarly, in U.S. Patent No. 4,715,356 (“Reynolds”), which was the prior art used to initially reject the claims during initial production, the “baffle 30” and “integral radiant 31” are described as “thin sheet metal” that “deflect and depress when the griddle plate is applied.” (Ex. 1009 at col. 5, lns. 8–24, Fig 1.)



74. It is therefore unsurprising that Reynolds does not use the word “ribs” or describe the baffles as structural elements of the griddle plate. Ribs, being structural, would not deflect or depress when the griddle plate is applied. Thus, it is my opinion that a person having ordinary skill in the art would understand the baffles in Reynolds are not ribs and do not perform the same function as ribs.

75. I am not aware of any of the prior art used in connection with the Petition as describing baffles, or thin air-flow control walls, as structural, supportive components in contrast to the plain and ordinary meaning of “ribs.”

76. For the reasons stated above, it is my opinion that a person of skill in the art would not be motivated to integrally form the baffles of the prior art to the underside of a griddle.

77. One of the innovative aspects of the '473 Patent is the use of ribs that provide both structural support and direct airflow. It would not be obvious for a person having ordinary skill in the art to transform the baffles, in a grill with pricing pressure from competitors, disclosed by the prior art into the structural ribs of the '473 Patent.

78. Baffles are thin and weak. Their purpose is to prevent airflow such that they are intentionally made to be thin and with minimal material in order to save on material used, thereby reducing manufacturing and shipping costs.

79. If baffles were attached to or alternatively integrally formed with the griddle plate, the connection would provide de minimis strengthening to the griddle.

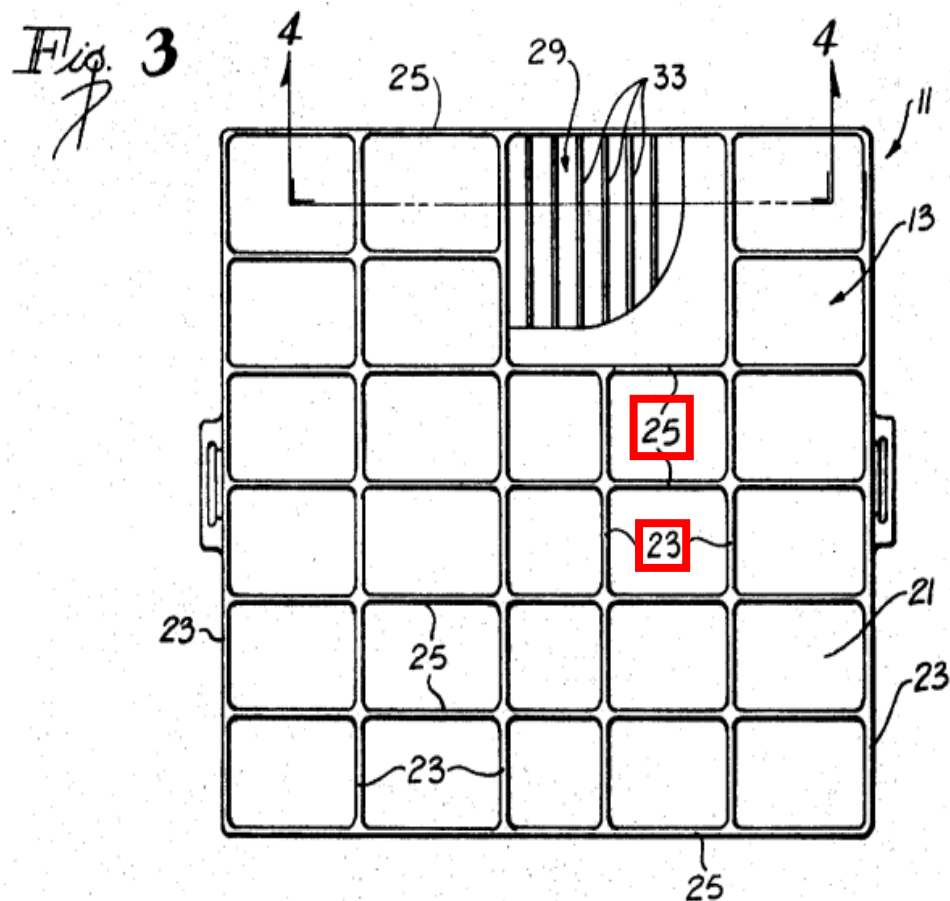
80. Pricing pressure from competitors and the risk of buckling would motivate designers away from integral baffles in a griddle.

81. Additionally, a baffle's flexibility helps it adapt to dynamic, high temperature environments, especially when there is air or gas flow. Integrating a baffle to a more rigid surface may cause buckling or tearing to the baffle, or to the weld caused by thermal loading issues and stresses. Thus, it is my opinion that it

would not be obvious to a person having ordinary skill in the art to convert a baffle into a structurally integrated, supportive rib.

C. In contrast to “baffles the only prior art referenced by the Petition—but not in the Grounds—uses “rib” as structural but not to control airflow like a “baffle.”

82. U.S. Patent No. 3,747,509 (“Hinkle”) describes the use of “ribs” to strengthen a griddle plate against warping. Further, Hinkle describes the “ribs 23 and 25” are in a grid pattern to strengthen the griddle against bending in both directions. (Ex. 1013 at col. 3, lns. 8–18.)



83. Hinkle's ribs are consistent with the traditional uses of ribs to strengthen a shell or plate, in which a relatively shallow ribbing structure reinforces the shell. The use of Hinkle's ribs in a grid pattern also prevents them from creating air-flow channels in contrast to the purpose of baffles.

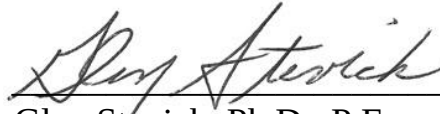
84. Instead, the ribs in Hinkle are structural as evidenced by the patent specification stating that the "ribs impart strength to the griddle to prevent warping." Hinkle, 1:46-47. However, the ribs in Hinkle are *merely* structural, without the secondary purpose of directing air flow to create airflow-channels variable heat chambers.

85. Accordingly, the uses of "baffle" in the prior art references in the petition are all in accordance with its plain and ordinary meaning as air-flow-restrictive and non-structural. In contrast, the uses of "rib" are structural and not described as a device to create airflow channels. "Rib" and "baffles" are not interchangeable under their plain and ordinary meanings.

86. The inventive elongated ribs disclosed by the '473 Patent are innovative because they provide the dual solution of adding support and strengthening the griddle while also channeling heat and air flow, unlike either Hinkle or Williams or any other prior art references alone or in combination.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

Executed on Tuesday, January 21, 2025 in Berkeley, California.

A handwritten signature in cursive script, reading "Glen Stevick", written in black ink. The signature is positioned above a horizontal line.

Glen Stevick, Ph.D., P.E.