

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HARTMANN U.S., INC.

Petitioner

v.

MAURICE J.P. TABONE

Patent Owner

IPR2024-01037
U.S. Patent 10,287,070

**DECLARATION OF THOMAS DUNN, BA MFS
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITION
FOR *INTER PARTES* REVIEW**

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I, Thomas Dunn, do hereby declare as follows:

I. INTRODUCTION

1. I have been retained by counsel for Hartmann U.S., Inc. (“Hartmann”) as an independent expert witness for the above-captioned Petition for Inter Partes Review (“IPR”) of U.S. Patent No. 10,287,070 (“the ’070 Patent”).

2. I am being compensated at my usual and customary rate for the time I spend in connection with this matter. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this proceeding. My compensation is not affected by the outcome of this matter.

3. I have been asked to provide my opinions regarding whether the subject matter of claims 1-3, 5, 8, 9, 11, and 16-25 (the “Challenged Claims”) of the ’070 Patent would have been obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention (*i.e.*, as of the earliest priority date the ’070 Patent attempts to claim), in light of the prior art. It is my opinion that the Challenged Claim would have been obvious to a POSITA after reviewing the prior art discussed below.

4. In preparing this Declaration, I have reviewed:

- Ex.1001, the ’070 Patent;
- Ex.1002, the file history of the ’070 Patent;
- the prior art references discussed below:

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- Ex.1009, U.S. Patent Application Publication No.
2005/0238764 (Beese);
- Ex.1010, UK Patent Application (GB) 2 415 186 (King);
- Ex.1011, U.S. Patent No. 1,254,276 (Reifsnyder);
- Ex.1012, U.S. Patent No. 3,854,581 (Jones);
- Ex.1013, U.S. Patent No. 3,951,292 (Amberg);
- Ex.1014, EP 1 558 504 (Tietschert);
- Ex.1020, FR-A-2441549 (Boursier);
- Ex.1021, U.S. Patent No. 4,280,648 (English equivalent
of Ex.1020);
- Ex.1022, U.S. Patent Application Publication No.
2006/0060493 (Marshall);
- Ex.1023, U.S. Patent No. 2,634,039 (Schwertfeger);
- Ex.1026, “flange.” *Merriam-Webster*, Merriam-
Webster’s Collegiate Dictionary (10th ed. 1993);
- Ex.1027, “generally.” *Merriam-Webster*, Merriam-
Webster’s Collegiate Dictionary (10th ed. 1993);
- Ex.1028, “continuous.” *Merriam-Webster*, Merriam-
Webster’s Collegiate Dictionary (10th ed. 1993);

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- Ex.1029, U.S. Patent No. 3,285,491;
- Ex.1030, U.S. Patent No. 3,298,594;
- the following additional documents:
 - Ex.1005, Prosecution History of U.S. 12/449,556
 - Ex.1006, WO 2008/098288
 - Ex.1007, AU 2007900654
 - Ex.1008, AU 2007902246; and
- any other document cited below.

5. I understand that the '070 Patent was issued on May 14, 2019, from U.S. Patent Application No. 15/656,623 (“the '623 Application,” Ex.1002), filed July 21, 2017. The '070 Patent is a continuation of U.S. Patent Application No. 12/449,556 (Ex.1005), which was filed on August 12, 2009 and later abandoned. The '070 Patent also claims priority to PCT Application No. PCT/AU2008/000173 (Ex.1006), filed February 12, 2008, which in turn claims priority to (i) Australian Application No. 2007902246, filed April 30, 2007 (Ex.1007), and (ii) Australian Application No. 2007900654, filed February 12, 2007 (Ex.1008). The face of the '070 Patent lists Maurice Joseph Paul Tabone as the inventor. I have been informed by counsel that, according to assignment records, Maurice Joseph Paul Tabone is the current assignee of the '070 Patent.

6. As the prior art I rely upon in forming my opinions predate the earliest date to which the '070 Patent attempts to claim priority by more than one year, I have considered the viewpoint of a POSITA, as of February 12, 2007, which I understand to be the earliest date to which the '070 Patent attempts to claim priority.

7. In forming my opinions expressed in this Declaration, I have considered the following materials:

- a) the documents listed above,
- b) any additional documents and references cited in the analysis below,
- c) the relevant legal standards, including the standard for obviousness, and
- d) my knowledge and experience based upon my work in the field of packaging as described below.

8. Unless otherwise noted, all emphasis in any quoted material has been added. Claim terms are italicized.

II. BACKGROUND AND QUALIFICATIONS

9. My qualifications and professional experience are described in my *Curriculum Vitae*, a copy of which can be found in Exhibit 1004. The following is a brief summary of my relevant qualifications and professional experience.

10. Since January 2011, I have served as the Managing Director of Flexpacknology LLC. My responsibilities at Flexpacknology include: consulting with users and producers of flexible packaging regarding product, process and platform development, intellectual property management and food safety compliance; expert witness about product liability, flexible packaging for shelf stable acidic canned foods and pouch failure modes, tariff classification, and patent infringement; package development for MAP food product with Internet distribution channel; trouble shooter for package failure from inadequate chemical resistance; market analyst of global variation of flexible packaging applications; and advisor on Good Manufacturing Practices for safe food packaging manufacturing.

11. I was inducted into National Packaging Hall of Fame in 2012 and was selected as Fellow in the Society of Plastics Engineers in 2016. In 2002, I received the Zweig Prize for Technical Contributions (Flexible Packaging Division-Technical Association of the Pulp and Paper Industry).

12. I received a M.F.S. degree in 1973 from the Yale School of Forestry and Environmental Studies. In 1971, I received a B.A. in combined science from Yale College.

13. I have over 45 years of experience in the packaging field including a 30-year career at Printpack, Inc. focused on product and process development. During my career at Printpack, Inc., I contributed to multiple +\$10 million product

platforms including: 1) extrusion laminated metallized OPP snack food packaging; 2) fully-coextruded forming/nonforming web for frozen boil-in-bag meals; 3) nitrogen flushed vertical form fill seal snack food packaging; 4) modified atmosphere packaging for fresh-cut produce; 5) High Moisture Barrier easy-open HDPE blown coex for dried food box liners; and 6) High barrier pre-made Stand-up Pouches.

14. I have served on several Advisory Committees including for the UN International Atomic Energy Commission and the USDA National Institute of Food and Agriculture, as well as served in leadership roles for several industry organizations including the Flexible Packaging Association, the Product Development Management Association, the Society of Plastics Engineers, ASTM, TAPPI, and RadTech North America.

15. I have served as an expert witness and technical consultant in litigation and IPR matters concerning packaging and packaging materials.

III. UNDERSTANDING OF PATENT LAW

16. I am not an attorney. For the purposes of this declaration, I have been informed about certain aspects of the law that are relevant to my opinions. My understanding of the law was provided to me by Petitioner's attorneys.

17. I understand that prior art to the '070 Patent includes patents and printed publications in the relevant art that predate the priority date of the '070 Patent. For

purposes of this Declaration, I have applied the date of February 12, 2007, the earliest date to which the '070 Patent attempts to claim priority.

18. I have been asked to provide my opinions regarding whether the Challenged Claims would have been obvious to a POSITA at the time of the alleged invention in light of the prior art.

19. I understand that a claim is unpatentable if it would have been obvious. Obviousness of a claim requires that the claim would have been obvious from the perspective of a POSITA at the time the alleged invention was made. I understand that a claim could have been obvious from a single prior art reference or from a combination of two or more prior art references.

20. I understand that an obviousness analysis requires an understanding of the scope and content of the prior art, any differences between the alleged invention and the prior art, and the level of ordinary skill in evaluating the pertinent art.

21. I further understand that a claim would have been obvious if it unites old elements with no change to their respective functions, or alters prior art by mere substitution of one element for another known in the field and that combination yields predictable results. Also, I understand that obviousness does not require physical combination/bodily incorporation, but rather consideration of what the combined teachings would have suggested to persons of ordinary skill in the art at the time of the alleged invention. I understand that the combination of familiar

elements according to known methods is likely to be obvious when it does no more than yield predictable results.

22. As mentioned above, I understand that a claim would have been obvious if it unites old elements with no change to their respective functions, or alters prior art by mere substitution of one element for another known in the field and that combination yields predictable results. While it may be helpful to identify a reason for this combination, I understand that there is no rigid requirement of finding an express teaching, suggestion, or motivation to combine within the references. When a product is available, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a POSITA can implement a predictable variation, obviousness likely bars its patentability. For the same reason, if a technique has been used to improve one device and a POSITA would recognize that it would improve similar devices in the same way, using the technique would have been obvious. I understand that a claim would have been obvious if common sense directs one to combine multiple prior art references or add missing features to reproduce the alleged invention recited in the claims.

23. I further understand that certain factors may support or rebut the obviousness of a claim. I understand that such secondary considerations include, among other things, commercial success of the patented invention, skepticism of those having ordinary skill in the art at the time of invention, unexpected results of

the invention, any long-felt but unsolved need in the art that was satisfied by the alleged invention, the failure of others to make the alleged invention, praise of the alleged invention by those having ordinary skill in the art, and copying of the alleged invention by others in the field. I understand that there must be a nexus—a connection—between any such secondary considerations and the alleged invention. I also understand that contemporaneous and independent invention by others is a secondary consideration tending to show obviousness.

24. I am not aware of any allegations by the named inventor of the '070 Patent that any secondary considerations tend to rebut the obviousness of the Challenged Claims of the '070 Patent.

25. I understand that in considering obviousness, it is important not to determine obviousness using the benefit of hindsight derived from the patent being considered.

IV. TECHNICAL BACKGROUND

26. Since the time man first went hunting and gathering there was a recognized need for containers to store foodstuffs and/or to preserve freshness. While pottery and glass were adopted as early as 3500-7000 BC, paper/cardboard products began to surface in the 1800s and by the early 1900s cardboard cereal boxes were being used by Kellogg's. Since then, companies worldwide have been offering packaging solutions and advancements, many of which have been recognized as

being innovative as the USPTO has granted over 17,000 patents related to containers or packaging for foods since 1900.

27. There are central tenants ubiquitous amongst food packaging approaches including providing a practical means to protect and deliver foodstuffs at a reasonable cost. Although recent focus has shifted to issues like sustainability, environmental impact reduction, and shelf-life extension, at its core the foundation remains providing packaging that has sufficient structure to accommodate the foodstuff and to protect the foodstuff from unwanted damage during shipping and storage.

28. By 2007, when the application to which the '070 Patent attempts to claim priority were filed, the concept of food packaging having a base and a lid hingedly connected to permit the container to move from an open to a closed state was not novel (*See, e.g.*, Ex.1001, 1:30-33). Further, application of adhesive labels to packaging was also not a novel concept in 2007 (*See, e.g.*, U.S. Pat. No. 1,254,276 (1918), Ex.1011). Not even the idea of using tamper-proof labels was novel in 2007 as this concept dates back centuries. Indeed, since the days of royal courts affixing a seal to a letter, there was a long-recognized need to ensure that the recipient can tell whether the item it receives has been opened and the contents, thus, soiled. This concept has continued through many iterations over the years including pressure-

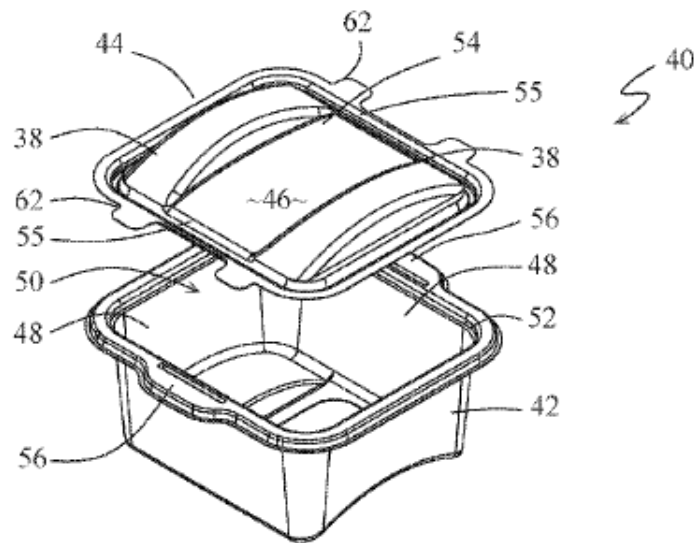
sensitive adhesive labels (*See, e.g.*, U.S. Pat. No. 3,854,581 (1974), Ex.1012) and hot-shrunk labels (*See, e.g.*, U.S. Pat. No. 3,951,292 (1976), Ex.1013).

29. All of the features and functionality described in this section were well known before 2007, and a POSITA would have been familiar with them.

V. THE '070 PATENT

30. The '070 Patent is titled “Container base and lid with planar area for flat application of adhesive membrane.” Ex.1001, cover at (54).

31. The '070 Patent explains that it “relates to containers intended to hold fresh food or produce.” Ex.1001, 1:18-21. In particular, the '070 Patent is “concerned with containers in a form which can facilitate application of labels, such as tamper evident labels.” Ex.1001, 1:21-23. Fig. 5 (appearing on the face of the '070 Patent) is illustrative of the '070 Patent’s purported invention:



Ex.1001 at Fig. 5

32. To this end, the '070 Patent “provides a container having a base and a lid moveable with respect to the base between an open position and a closed position, the lid having a first planar area and the base having a second planar area, wherein, in the closed position, the first and second planar areas include a substantially flat area suitable for receipt of an adhesive membrane, the substantially flat area including an edge of the first planar area and at least part of the second planar area.” Ex.1001, 2:8-16.

33. The inventor of the '070 Patent did not find anything important or even novel about the structure of the container *per se* (“[i]t will be appreciated from the various embodiments described above that the container of the invention can be produced in a wide number of forms,” Ex.1001, 7:32-36, “container of the invention

can be adapted to any currently known container design,” Ex.1001, 7:57-59). Rather, the inventor of the ’070 Patent considered the important contribution of his invention to be the arrangement of the required first and second planar areas when the container is in a closed position such that these planar areas provide a “substantially flat area suitable for receipt of an adhesive membrane.” Ex.1001, 2:8-16. The ’070 Patent purports that this required feature allows “flat, self-adhesive label application providing tamper evidence,” Ex.1001, 7:59-62 and “tamper evidence capabilities while maintaining minimal obstruction of vision through the container lid.” Ex.1001, 7:63-65.

34. Notably, as I will demonstrate in this Declaration, neither tamper-evident labels nor the arrangement of two adjacent flat surfaces at a container enclosure permitting application of a tamper-evidence label were novel at the time the ’070 Patent was filed. Further, as I will demonstrate in this Declaration, there is nothing novel about the claims of the ’070 Patent as all of the elements were taught in the prior art and it would have been obvious to combine the relevant teachings of the asserted prior art references as claimed.

VI. PROSECUTION HISTORY OF THE ’070 PATENT

35. Application No. 15/656,623 (Ex.1002), which issued as the ’070 Patent, was filed on July 21, 2017. During prosecution, not a single office action was issued,

and no prior art rejections were presented. Accordingly, the claims were not amended from filing to issuance.

36. In the Notice of Allowance, the Examiner stated:

The present claims define over the art cited against the claims of the parent application. Particularly the limitations where the lid is required to extend further away from the base than it does into the base, the comparison of the total container volume to the maximum base volume, and the description of the surface configuration and immediately adjacent flange and lid surfaces with respect to the extension of the flat membrane layer, which is neither taught nor suggested by herein cited US. Patent Nos. 4,570,818 (Borst et al.) or 5,018,622 (Hartley) which both fail to disclose the coplanar flanges sufficiently as claimed nor the flat membrane overlaying surface configuration and extending in a flat plane.

Ex.1002, 32 at ¶3.

37. This indication of allowability by the Examiner is specious at least because it relies upon “required” features that do not appear in the claims of the ’070 Patent. For example, the Examiner allowed the ’070 Patent on the basis that “the lid is required to extend further away from the base than it does into the base” but none of the claims of the ’070 Patent include such a requirement. The Examiner also

allowed the '070 Patent because the cited prior art references “fail to disclose the coplanar flanges sufficiently as claimed.” However, no claim of the '070 Patent requires “coplanar flanges.”

38. Despite pending for over eight (8) years (from August 12, 2009 to December 28, 2017), no claims of a similar scope were presented in parent Application No. 12/449,556 (Ex.1005).

VII. LEVEL OF ORDINARY SKILL IN THE PERTINENT ART

39. I understand that the level of ordinary skill may be reflected by the prior art of record, and that a POSITA to which the claimed subject matter pertains would have the capability of understanding the scientific and engineering principles applicable to the pertinent art. I understand that one of ordinary skill in the art has ordinary creativity, and is not a robot.

40. I understand there are multiple factors relevant to determining the level of ordinary skill in the pertinent art, including (1) the levels of education and experience of persons working in the field at the time of the invention; (2) the sophistication of the technology; (3) the types of problems encountered in the field; and (4) the prior art solutions to those problems. There are likely a wide range of educational backgrounds in the technology fields pertinent to the '070 Patent.

41. I am very familiar with the knowledge and capabilities that a person of ordinary skill in the art of '070 Patent would have possessed at the time this

application was filed. I am also aware of the state of the art at the time the application resulting in the '070 Patent was filed. Based on the technologies disclosed in the '070 Patent, it is my opinion that a POSITA would include someone who had a bachelor's degree in packaging products, materials, process and platforms or equivalent, and two years of professional experience relating to packaging products, materials, process and platforms. Additional work experience can substitute for specific educational background, and vice versa.

42. For purposes of this Declaration, in general, and unless otherwise noted, my statements and opinions, such as those regarding my own experience and what a POSITA would have understood or known generally (and specifically related to the references I consulted herein), reflect the knowledge that existed in the relevant field as of the earliest priority date that the '070 Patent attempts to claim (*i.e.*, February 12, 2007). I would have been a person with at least ordinary skill in the art at that time.

VIII. CLAIM CONSTRUCTION

43. It is my understanding that in order to properly evaluate the '070 Patent, the terms of the claims must first be interpreted. It is my understanding that for the purposes of this matter, the claims are to be construed under the so-called *Phillips* standard, under which claim terms are given their ordinary and customary meaning as would have been understood by a POSITA in light of the specification and

prosecution history, unless the inventor has set forth a special meaning for a term. I have also been informed that claim terms only need to be construed to the extent necessary to resolve the obviousness inquiry.

44. I understand that in an IPR proceeding that any so-called “means plus function” limitation requires construction. In this matter, there is only one such term: *means for mechanically attaching the lid to the base*. See *infra* [18.1]. I understand that the basic maxim for interpreting a means for “means plus function” limitation is that such a limitation corresponds to the structure, material or act described in the specification as performing the entire claimed function and equivalents to the disclosed structure, material or act. To this end, the specification of the ’070 Patent states that the lid “may be hinged or otherwise attached to the base in any suitable manner.” Ex.1001, 2:43-44. Fig. 1 depicts an embodiment of the claimed container that includes hinge 16 attaching the lid 14 to base 12. Ex.1001, 4:66-5:2, Fig.1. Accordingly, a “hinge” is a structure corresponding to the function of mechanically attaching the lid to the base.

45. In order to construe all other limitations of the Challenged Claims, I have reviewed the entirety of the ’070 Patent, as well as its prosecution history. It is my opinion that for purposes of applying the prior art presented herein to evaluate the patentability of the Challenged Claims that no other term requires express construction. Accordingly, I have analyzed the Challenged Claims consistent with

their ordinary and customary meaning as would have been understood by a POSITA. Where appropriate to understand a term or limitation in the claims, I have included a corresponding explanation of how the ordinary and customary meaning would have been understood by a POSITA.

IX. DETAILED INVALIDITY ANALYSIS

46. I have been asked to provide my opinion as to whether the Challenged Claim of the '070 Patent would have been obvious in view of the prior art. The discussion below provides a detailed analysis of how the prior art references I reviewed disclose, teach, or suggest the limitations of the Challenged Claims of the '070 Patent.

47. As part of my analysis, I have considered, and discuss in detail, the scope and content of the prior art and any potential differences between the claimed subject matter and the prior art. I conducted my analysis as of the earliest date to which the '070 Patent attempts to claim priority: February 12, 2007. I have also considered the level of ordinary skill in the pertinent art as of that date.

48. It is my opinion that the alleged invention recited in the Challenged Claims would have been obvious in view of the teachings of the asserted prior art and the knowledge of a POSITA.

49. I will now describe, in the grounds below, on an element-by-element basis how the prior art discloses or teaches all elements of the Challenged Claims.

Unless otherwise noted, all *italics* refers to claim language, and **bold** or ***bold italics*** is added for emphasis.

50. For reference, it is my opinion that the Challenged Claims are obvious for the following reasons:

Basis	Claims	Reference(s)
Obviousness	1-3, 5, 8, 9, 11, 16-21, 24, 25	Beese
Obviousness	22, 23	Beese in view of King

A. Claims 1-3, 5, 8, 9, 11, 16-21, 24, and 25 are obvious over Beese

51. It is my opinion that Beese would render obvious, to a POSITA, the subject matter of each and every element of claims 1-3, 5, 8, 9, 11, 16-21, 24, and 25 of the '070 Patent.

1. Summary of Beese

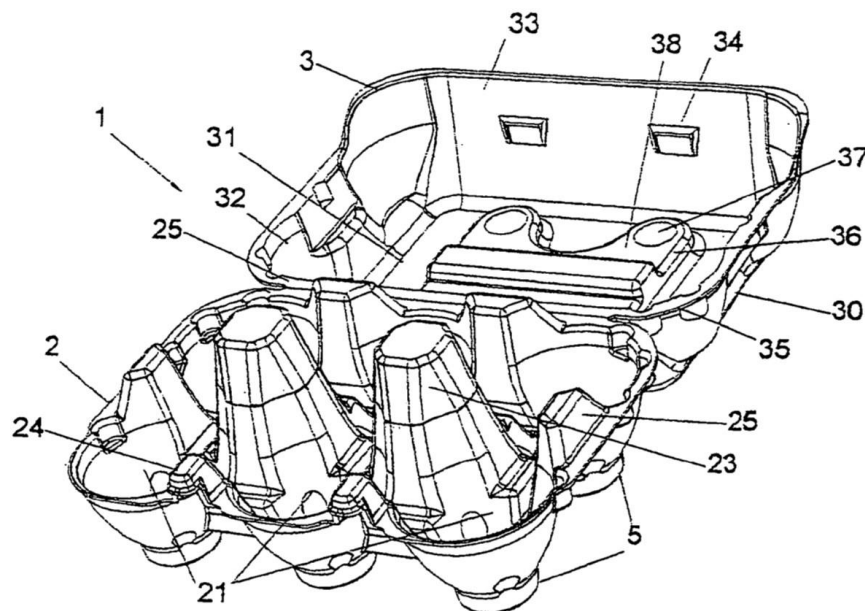
52. Beese published as U.S. 2005/0238764 on October 27, 2005, based on U.S. application No. 10/524,106 which was a National Stage (371) of PCT/EP03/09000 and, therefore, has a U.S. filing date of August 13, 2003. Ex.1009, face at (10), (43), (21), (22), and (86).

53. Beese's publication date (October 27, 2005) is more than one year prior to the earliest non-provisional filing date (February 12, 2008) of the '070 Patent, and

more than one year before the date to which the '070 Patent attempts to claim foreign priority (February 12, 2007).

54. Beese is titled “Food Packaging Having a Shaped Lid Part.” Ex.1009, (54).

55. Beese discloses a foodstuffs packaging unit that has “a bottom part which has at least one row of shaped depressions for accommodating separate articles... and a lid part which is arranged for swing action on the bottom part.” Ex. 1009, Abstract. Beese’s foodstuffs packaging unit bounds an interior compartment when the lid is closed over the bottom part. Ex. 1009, [0001]. Fig. 1, below, depicts Beese’s disclosed foodstuffs packaging unit:



Ex.1009 at Fig. 1

56. Beese covers containers made from any material, including paper pulp. Ex.1009, [0011]; *see also* Ex.1009, [0002] (citing FR-A-2441549 (Ex.1020) that claims a “molded paper pulp container” (Ex.1021, Title, Abstract) (U.S. equivalent of FR-A-2441549))).

57. Beese is analogous art to the '070 Patent at least because Beese relates to the same field of endeavor as the '070 Patent. The '070 Patent defines the field of its invention as being “containers” and, more specifically, to “containers intended to hold fresh food or produce.” Ex.1001, 1:18-20. Beese also relates to containers for holding foodstuffs, in particular eggs. Ex.1009, [0001]. Thus, both Beese and the '070 Patent relate to food containers.

58. During examination of '070 Patent, Tabone recognized egg cartons to be analogous art to his invention citing EP 1 558 504 (Ex.1014) in an Information Disclosure Statement filed on November 14, 2017. EP 1 558 504, like Beese, relates to packages “for receiving one or more frangible products, such as eggs.” Ex.1014, [0009]. Accordingly, Tabone openly acknowledges that egg cartons like those described in Beese are within the field of endeavor of the '070 patent and, thus, represent analogous art.

59. Beese is also analogous art to the '070 Patent because Beese is reasonably pertinent to a problem that the inventor faced. The problem that the '070 Patent seeks to solve is to alleviate concerns that the state of the art allegedly failed

to provide containers with adequate surfaces for label application. Ex.1001, 2:8-16.

Beese addresses this very same problem. Ex.1009, [0030].

60. Beese was not before the Examiner during prosecution of the '070 Patent.

2. Analysis

a) Claim 1

[1.0] A container comprising

61. To the extent that the preamble is limiting, Beese discloses it.

62. Beese discloses a food packaging container that has a bottom part 2 and a lid part 3. Ex.1009, [0025].

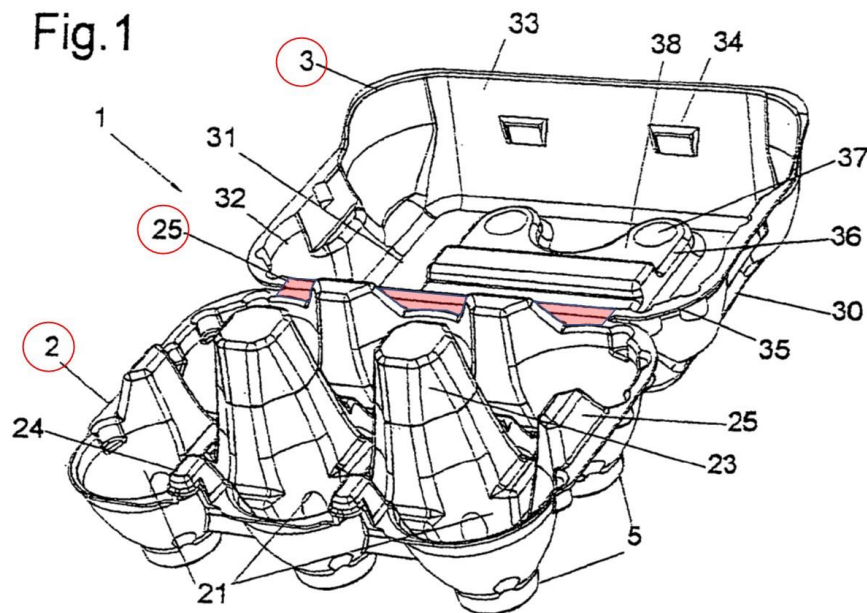
63. Thus, Beese discloses *a container*.

[1.1] an inside, a lid and a base moveable with respect to each other between, an open position and, a closed position, the closed position at least substantially enclosing the inside;

64. Beese discloses this limitation.

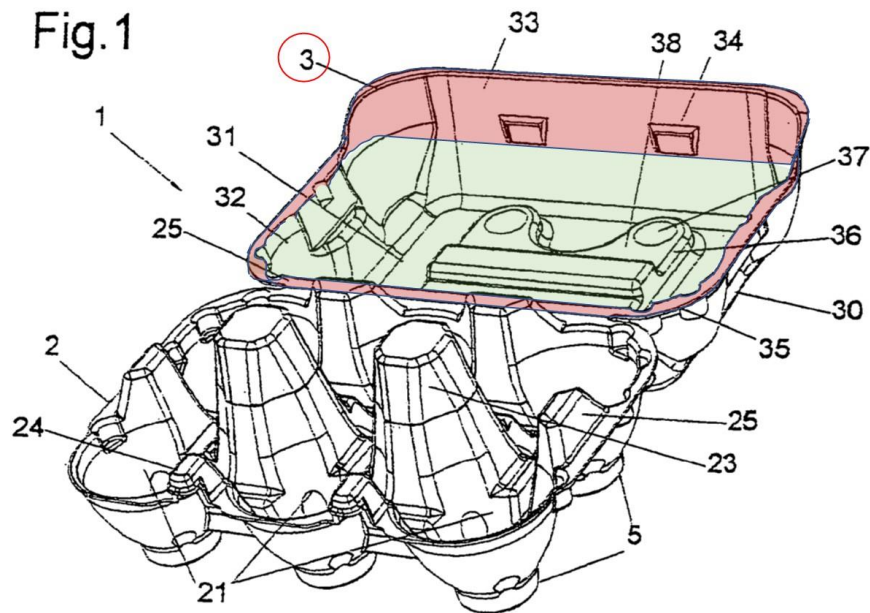
65. Beese discloses a foodstuffs packaging unit that has “a bottom part 2 and a lid part 3, which is fastened for swing action on the bottom part 2 via a flexible hinge 25... In the closed state, the lid part 3 rests on the bottom part 2 and covers over the latter completely. Pivoting the lid part 3 through approximately 180° about the axis of the flexible hinge 25 moves the lid part 3 into its open position.” Ex. 1009, [0025].

66. Annotated Fig. 1, below, shows the arrangement of the bottom part 2 (i.e., *a base*), the lid part 3 (i.e., *a lid*), and the flexible hinge 25 (red shaded region) that permits the lid and base to be *movable with respect to each other between an open position and a closed position*.



Ex.1009 at Fig. 1, annotated

67. Beese further discloses that when in the closed state “the lid part 3, together with the base part 2, bounds an interior in which the eggs are arranged in a protected manner.” Ex.1009, [0027]. The interior (i.e., *substantially enclosing the inside*) containing the eggs is, thus, the inside of the container when in a closed position and the interior volume is defined by the base part 2 and the lid part 3. Fig. 2, below, illustrates the closed foodstuffs container of Beese:



Ex.1009 at Fig. 1, annotated

73. Thus, Beese discloses *the lid comprising; a lid shape suitable for at least partially enclosing the inside of the container when the container is in the closed position.*

[1.3] [the lid comprising] at least one first surface portion;

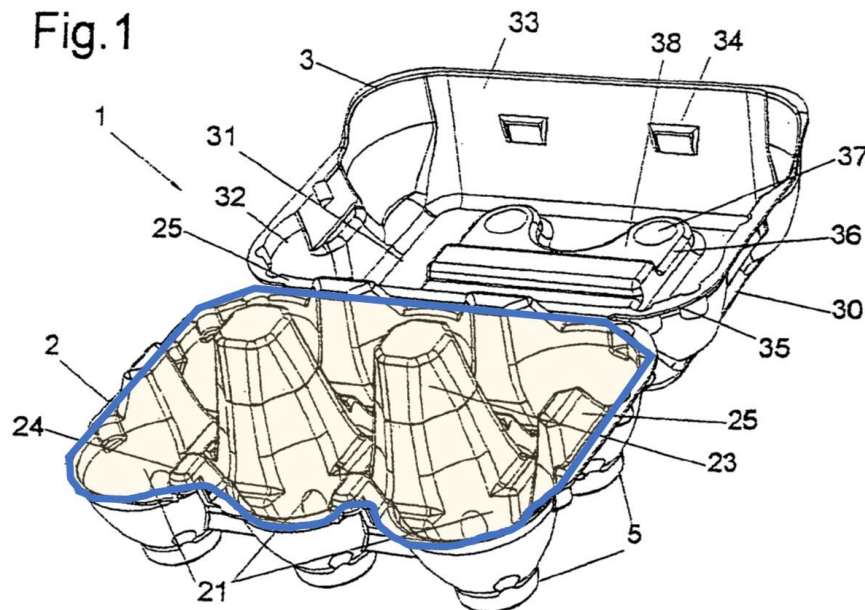
74. Beese discloses this limitation.

75. As shown in the annotated Fig. 2 below, Beese's front part 33 of lid part 3 is the *at least one first surface portion* of the *lid*. Ex.1009, [0027] ("The lid part 3 is of tray-like configuration and comprises...a front part 33."):

[1.4] the base comprising: an internal cavity having an opening suitable for receipt of contents into the internal cavity;

78. Beese discloses this limitation.

79. As shown in the following annotated figure, the base of the foodstuffs container of Beese has a rim (blue) defining a cavity (yellow) which is contained in the interior of the closed container of Beese and which would receive foodstuffs (“the lid part 3, together with the base part 2, bounds an interior in which the eggs are arranged in a protected manner.” Ex.1009, [0027].):



Ex.1009 at Fig. 1, annotated

80. Moreover, the internal base cavity is further divided into a plurality of shaped depressions 21 each for accommodating (*i.e.*, receiving) individual eggs and

which ensure that “eggs inserted therein do not come into contact with one another.”

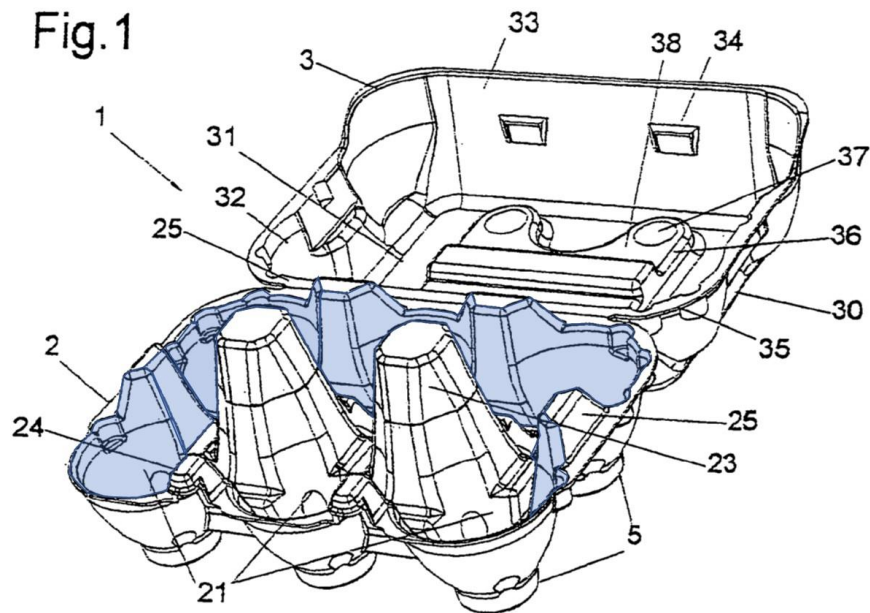
Ex.1009, [0026].

81. Thus, Beese discloses *the base comprising: an internal cavity having an opening suitable for receipt of contents into the internal cavity.*

[1.5] [the base comprising] at least one sidewall comprising an internal surface with respect to the internal cavity;

82. Beese discloses this limitation.

83. The base part 2 in Beese has shaped depressions 21 for accommodating eggs that would each possess *at least one sidewall* and each sidewall has an *internal surface with respect to the internal cavity*. Beese’s expressly teaches its shaped depressions 21, shown in Fig. 1, accommodate eggs. And that the “shaped depressions 21 are formed by a corresponding configuration of the wall of the base part 2 and by two supports 23 arranged in the centre.” Ex.1009, [0026]. Illustrative sidewalls on the internal surface of the internal cavity are highlighted in blue in the annotated figure below:



Ex.1009 at Fig. 1, annotated

84. In the illustration above the perspective only permits visualization of three internal sidewalls (*i.e.*, the sidewalls on the left, back, and right of the container), which are highlighted in blue. However, from the illustration in Fig. 1 it would have been appreciated by a POSITA that the sidewall continues to wrap around the “front” (*i.e.*, the side opposite the flexible hinge 25¹ connecting base part 2 and lid part 3) of the internal cavity including the region extending up on the

¹ Note: Fig. 1 of Beese has two different features identified with reference

character “25” although one is in error. Reference character “25” represents a flexible hinge between the lid part 3 and bottom part 2. Ex.1009, [0025].

internally facing face of retaining nose 24 (“two retaining noses 24 are arranged on a front side of the base part 2”; Ex.1009, ¶[0026]).

85. Thus, Beese discloses *[the base comprising] at least one sidewall comprising an internal surface with respect to the internal cavity.*

[1.6] wherein, when the container is in the open position and the lid is removed from the base, the base further comprises, a maximum potential internal base volume defined within inner extremities of the base and at least partially defined by one of, the internal surface of the at least one sidewall, the opening and the internal cavity;

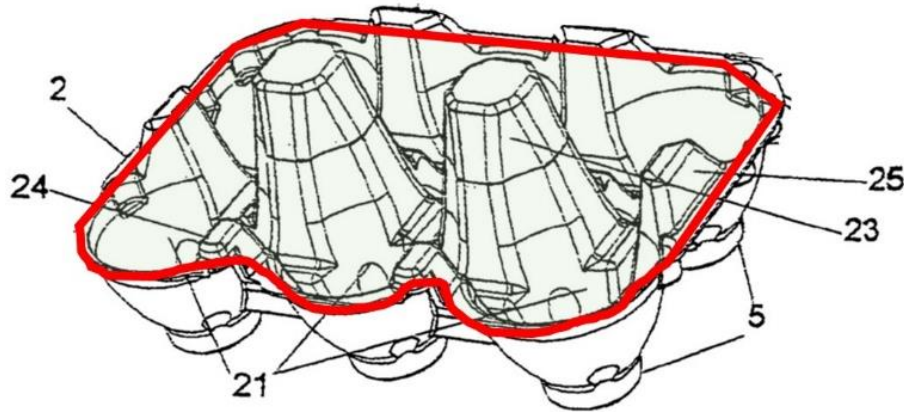
86. Beese discloses this limitation.

87. When Beese’s container is open (shown in Fig. 1), lid part 3 is removed from base part 2 because the front part 33 of lid part 3 is no longer resting on base part 2 (base). Ex.1009, Fig. 1.

88. The’070 Patent does not define the term “inner extremities.” However, the ordinary and customary meaning from the perspective of a POSITA would have been that this term defines the outer most boundary permitted by the base structure that faces and defines the interior volume of the container’s base.

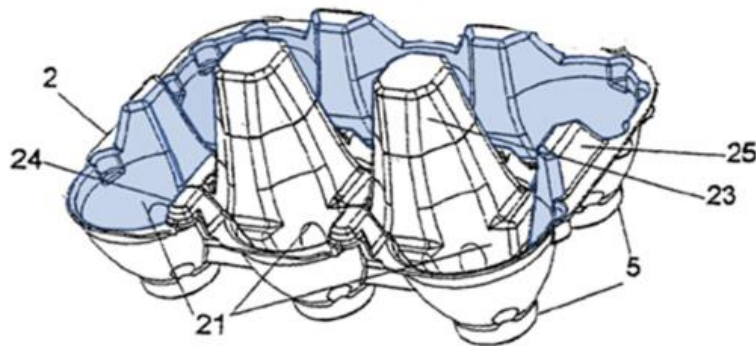
89. The lid in Beese does not insert a portion thereof into the base when the container is in a closed position (“lid part 3 rests on the bottom part 2 and covers over the latter completely.”). Ex.1009, [0025]. Thus, the “*maximum potential internal base volume*” measured for base part 2 is the volume defined by a ceiling being the plane (shaded green) of the outer perimeter of the base rim at the top of

base part 2 (red border) and occupies the space below this plane within the shaped depressions 21:

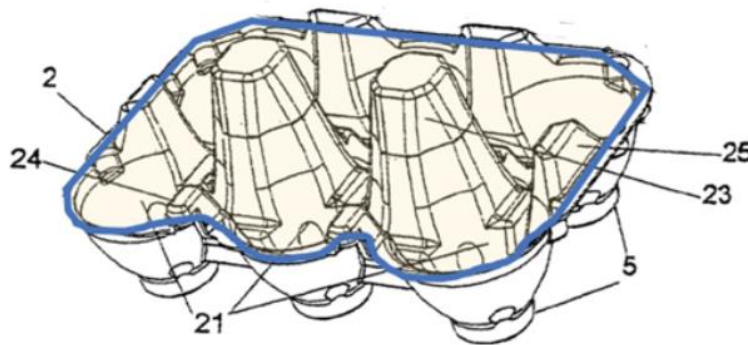


Ex.1009 at Fig. 1, annotated partial view

90. More specifically, the maximum potential internal base volume would be defined by: (1) ceiling of base part 2 which is the plane (green) defined by the rim of base part 2 (red) outlining its opening (see figure above), i.e., *the opening*; (2) internal sidewalls of base part 2 (blue), i.e., *internal surface of the at least one sidewall* (see figure below); and (3) space occupied below the ceiling plane around shaped depressions 21 (yellow; see figure below), i.e., *internal cavity*.



Ex.1009 at Fig. 1, annotated partial view



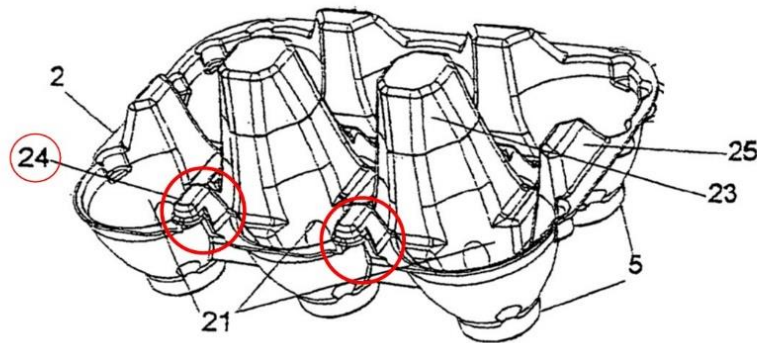
Ex.1009 at Fig. 1, annotated partial view

91. Thus, Beese discloses *when the container is in the open position and the lid is removed from the base, the base further comprises, a maximum potential internal base volume defined within inner extremities of the base and at least partially defined by one of, the internal surface of the at least one sidewall, the opening and the internal cavity.*

[1.7] at least one flange portion extended from the base, a flange portion comprising a second surface portion wherein the second surface portion comprises a continuation of the internal surface of the at least one sidewall;

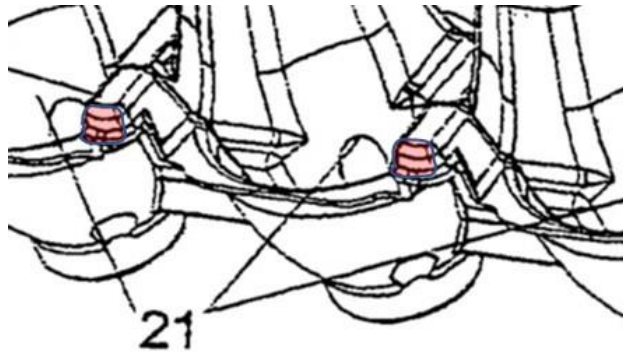
92. Beese discloses this limitation.

93. The '070 Patent does not provide a specific definition to the term “flange”. A flange is a term of art that would be understood by a POSITA as having its conventional meaning of “a rib or rim for strength, for guiding, or for attachment to another object.” Ex.1026, 442. As illustrated in the following figure, base part 2 has a retaining nose 24 (*i.e.*, a *flange*) on the front side of the base, which *extend[s]* from the base part 2 in a direction away from the internal cavity. Ex.1009, [0026]:



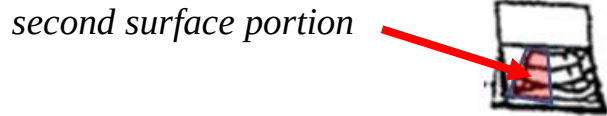
Ex.1009 at Fig. 1, annotated partial view

94. As shown in the annotated figure below, retaining nose 24 has a front, externally facing surface (highlighted in red below):



Ex.1009 at Fig. 1, annotated partial view

95. Any area of Beese's front, externally facing surface of retaining nose 24 that is immediate within opening 34 of lid part 3 when the container is closed would be a "*second surface portion*":



Ex.1009 at Fig. 2, annotated partial view

96. This limitation also imposes a requirement that to qualify as a "*second surface portion*" the surface must comprise a "*continuation of the internal surface of the at least one sidewall.*" It was explained to me by counsel that the term "comprising" in the context of claim interpretation is synonymous with "including," "containing," or "characterized by," and is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. Thus, the ordinary and customary meaning from the perspective of a POSITA would have been that to

qualify as a second surface portion the surface must track its origin back to an internal surface of the sidewall of base part 2, at least because a continuation connotes an extension of a structure.

97. This is consistent with how the '070 patent depicts a “second planar area.” In Fig. 1, of the '070 patent, “rim portion 26,” which contains the second planar area, extends from the base and is shown to track its origin back to the base. Ex.1001, Fig. 1, 5:10-11. The “enlarged portion[] 56,” which contain second planar surface, in Fig. 5 is substantively similar. Ex.1001, Fig. 5, 5:29-30.

98. At least because retaining nose 24 is depicted in Fig. 1 as being a part of the front sidewall of base part 2 and extending up and externally away from the bottom of the base part 2, a POSITA would have recognized that the structure of retaining nose 24 in Beese starts from an internal surface of a sidewall of base part 2 (*i.e.*, the region that separates two adjacent shaped depressions 21) and continues in an upwardly projecting manner over the top surface of retaining nose 24 resolving into the second surface portion on the externally facing projection constituting retaining nose 24. As such, the structure of retaining nose 24 is such that the second surface portion contains a *continuation of the internal surface of the at least one sidewall*.

99. Thus, Beese discloses *at least one flange portion extended from the base, a flange portion comprising a second surface portion wherein the second*

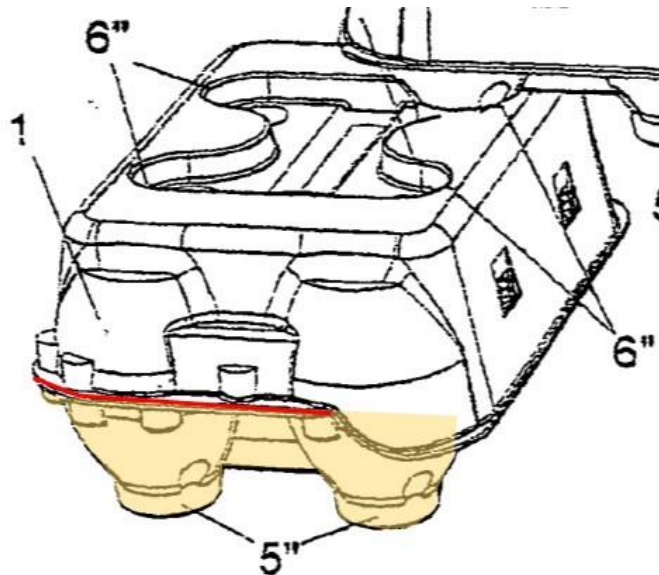
surface portion comprises a continuation of the internal surface of the at least one sidewall.

100. To the extent it is argued that Beese’s “retaining nose[] 24” (*at least one flange*) does not comprise a *second surface portion* that comprises a *continuation of the internal surface of the at least one sidewall*, a POSITA would have been motivated and found it obvious to modify Beese’s container so that the *second surface portion* (discussed above with respect to Figs. 1 and 2) of the “retaining nose[] 24” is a continuation of the internal surface of the at least one sidewall by, for example, manufacturing Beese’s container from a molded material, such as pulp or plastic. Before the priority date of the ’070 Patent, it was well known to form food containers (e.g., egg containers) from a molded material (e.g., pulp or plastic). For example, U.S. Patent No. 3,285,491 (Ex.1029), which issued in November 1966, explains that “[m]olded packaging cartons utilizing lug-locking principles [were] widely used [] particularly in the packaging of eggs.” Ex.1029, 1:13-15. In describing background art of known egg cartons having a bottom part and a hinged lid part, Beese cites FR-A-2441549 (Ex.1020) (Ex.1021, U.S. equivalent), which describes a “molded paper pulp container.” Ex.1009, [0002] (“Egg boxes which comprise a bottom part, for accommodating the eggs, and a protective lid part, which is arranged for swing action on the bottom part via an element which is usually configured as a flexible hinge, are known from prior public

use....Such an egg box is known, for example, from FR-A-2441549.”); Ex.1021, Title (“Molded Paper Pulp Container”), Abstract (“A molded paper pulp container comprising a pocketed section mutually hinged to a flat bottom cover section....”). Thus, manufacturing Beese’s container from a molded material would have been nothing more than the use of a known technique that would have improved the egg container in Beese in the same way—by simplifying and reducing the cost of manufacturing through a molding process.

101. Moreover, a POSITA would have understood that the egg container produced from this well-known molding process would have had a unitary construction. For example, U.S. 3,298,594 (Ex.1030), which issued in January 1967, shows that it was known for an egg carton made from a molded plastic material to have a unitary structure. Ex.1030, 1:63-2:6 (describing an “egg carton [] formed from a molded plastic material” having a “unitary structure”). As a result, when Beese’s container is manufactured from a molded material and has a unitary construction, a POSITA would have understood that the “retaining nose[] 24” would include a second surface portion that comprises a continuation of the internal surface of the at least one sidewall, at least because the *second surface portion and internal surface of the sidewall* are both part of the same “unitary construction,” such that the *second surface portion* would track its origin back to an *internal surface of the sidewall* of “base part 2.”

104. The outward overlap and projection of lid part 3 with respect to the internal cavity of the base part 2 (shaded yellow) is further evidenced by the profile view in Fig. 4 which shows that the outer edge of the lid part 3 rests on the rim of the base part 2 along the side of the closed container (interface highlighted in red) and that the front face extends beyond the front rim defining the opening of the base creating an overhanging region on the exterior of the internal cavity:



Ex.1009 at Fig. 4, annotated partial view

105. Thus, Beese discloses *wherein, when the container is in the closed position, the lid is disposed at least partially beyond the opening of the internal cavity of the base in a generally outward direction with respect to the internal cavity.*

[1.9] wherein the lid is suitable to contain at least some of any contents which may extend outwardly from the internal cavity and at least partially beyond the opening to an area outside of the maximum potential internal base volume and,

106. Beese discloses this limitation.

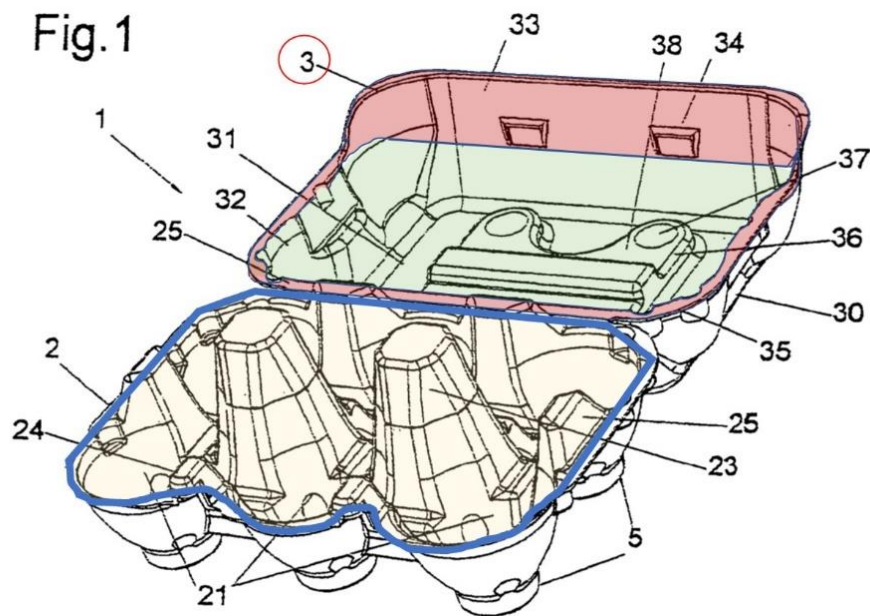
107. This limitation is not expressly defined in the '070 Patent. However, a POSITA would have understood this limitation to mean that the lid would need to have a structure such that it defines a space to confine contents, even a *de minimus* amount, that is situated above the plane of the opening defining the maximum potential internal base volume and projects outside the internal cavity to be held within the inside of the container when the container is in a closed position. A POSITA would also understand that this limitation does not require that the contents to be contained fill the entire volume of the internal cavity prior to projecting outside the internal cavity.

108. As an illustrative example, where the contents to be placed in the container are, for example, mashed potatoes at least some of the contents may break the plane of the opening defining the maximum potential internal base volume (*i.e., beyond the opening to an area outside of the maximum potential internal base volume*) and project outside the internal cavity (*i.e., extend outwardly from the internal cavity*) without filling the entire volume of the internal cavity first. In this situation, a flat lid that is along the plane with the opening of the internal cavity when in the closed position would be “*suitable to contain at least some of any contents*

which may extend outwardly from the internal cavity and at least partially beyond the opening to an area outside of the maximum potential internal base volume.”

109. As shown in the annotated figure below, lid part 3 in Beese has a volume (shaded green) above the maximum potential internal base volume (shaded yellow) into which the top side of food articles, *e.g.*, eggs, project. Further, lid part 3 has retaining depressions 36 that “makes it possible to prevent undesired movement of the eggs in the shaped depressions” evidencing that the lid contains contents that exceed the internal cavity of base part 2 (i.e., the eggs extend outside of the maximum potential internal volume (yellow) of base part 2). Ex.1009, [0009].

110. A POSITA would also have understood that eggs that projects into the volume (green) of lid part 3 extend outwardly from the internal cavity of base part 2 and at least partially beyond the opening of base part 2 (blue). To this end, Beese further discloses “The function of the retaining depression 36 is, rather, to limit undesired movement of the top side of the eggs. This makes it possible to avoid damage by way of eggs in adjacent shaped depressions 11 striking against one another as a result of abrupt and rough handling of the egg box.” Ex.1009, [0028].



Ex.1009 at Fig. 1, annotated

111. Accordingly, Beese's lid part 3 ensures that when the container is closed any partial volume of the contents that breaks the plane of the opening defining the maximum potential internal base volume and projects outside the internal cavity is held within the inside of the container when the container is in a closed position.

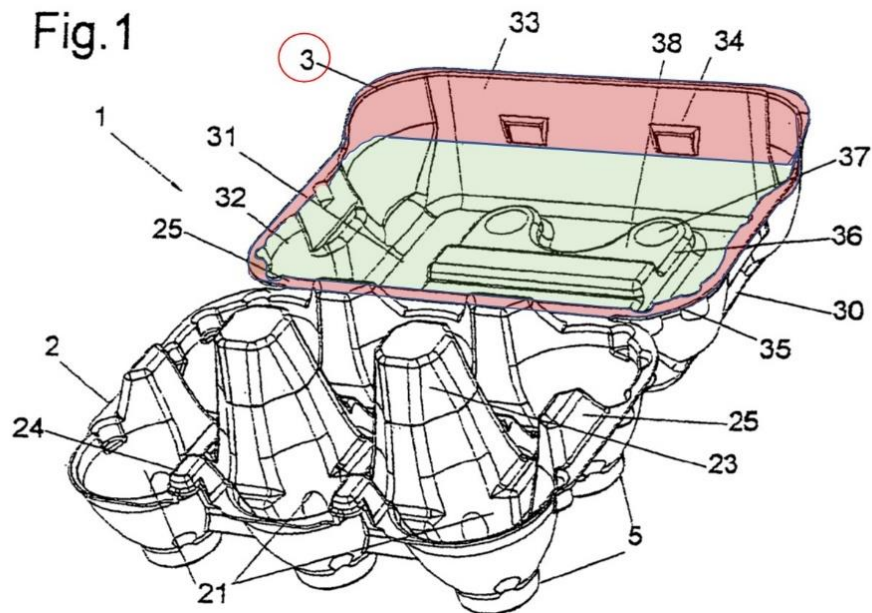
112. Thus, Beese discloses *wherein the lid is suitable to contain at least some of any contents which may extend outwardly from the internal cavity and at least partially beyond the opening to an area outside of the maximum potential internal base volume.*

[1.10] wherein, the container comprises a total internal volume, the total internal volume being at least partially defined within the inside of the container in the closed position by a substantially internal facing surface of the lid, the total internal volume being no less in volume than the maximum potential internal base volume alone;

113. Beese discloses this limitation.

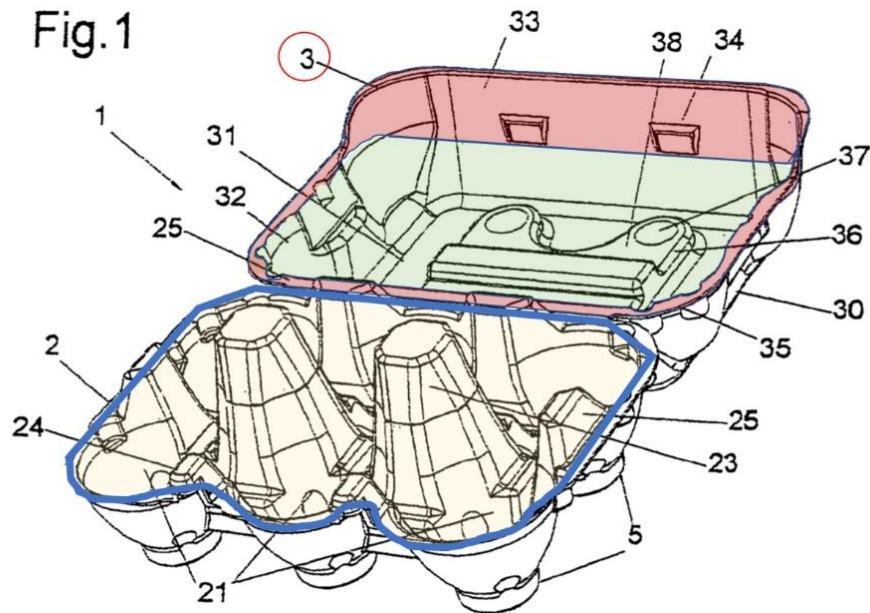
114. This limitation further defines the container's total internal volume when the container is in a closed position in relation to the maximum potential internal base volume defined in [1.6] above. The ordinary and customary meaning from the perspective of a POSITA would have been that, when the container is in the closed position, the lid does not result in a negative volume adjustment relative to the maximum potential internal base volume.

115. As explained above in, for example, [1.9], when the container of Beese is in a closed position, the lid part 3 rests on the bottom part 2 and covers over the latter completely. Ex.1009, [0025]. As such, the lid has regions (red) that are beyond the opening of the internal cavity (footprint highlighted in green), which include the rim portion that "rests on the bottom part 2":



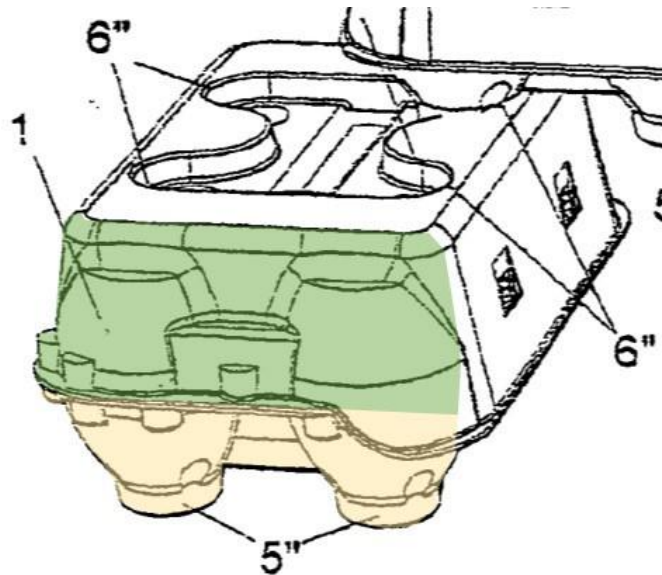
Ex.1009 at Fig. 1, annotated

116. POSITA would have understood that lid part 3 has a volume (shaded green) that is outside of, and in addition to, the maximum potential internal base volume (shaded yellow) of base part 2. This is illustrated in the annotate figure below:



Ex.1009 at Fig. 1, annotated

117. The following partial view of Beese's Fig. 4 shows the relative arrangement arising from the requirement that "[i]n the closed state, the lid part 3 rests on the bottom part 2 and covers over the latter completely." Ex.1009, [0025]. As illustrated by Beese's Fig. 4 (only profile view highlighted), the lid part 3 provides a positive volume adjustment (green) relative to the maximum potential internal base volume (yellow) of base part 2. As such, in a closed position, the total internal volume of Beese's container is no less than maximum potential internal volume of the base alone.



Ex.1009 at Fig. 4, annotated partial view

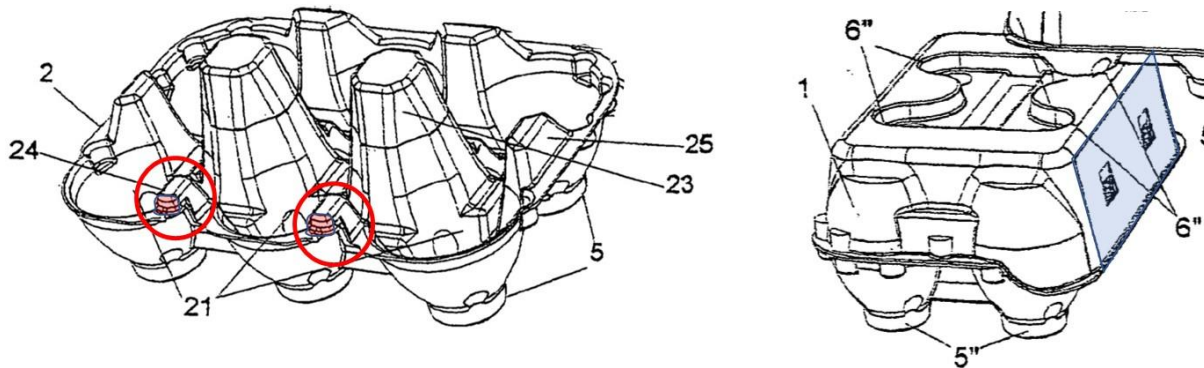
118. Thus, Beese discloses *the container comprises a total internal volume, the total internal volume being at least partially defined within the inside of the container in the closed position by a substantially internal facing surface of the lid, the total internal volume being no less in volume than the maximum potential internal base volume alone.*

[1.11] wherein each first surface portion and each second surface portion of the container in the closed position are disposed at least substantially external with respect to the total internal volume and

119. Beese discloses this limitation.

120. As noted in [1.3] and [1.7] above, the first surface portion(s) on lid part 3 is found on front part 33 (highlighted blue) and the second surface portion(s) on base part 2 is found on retaining nose 24 (highlighted red), which are both external

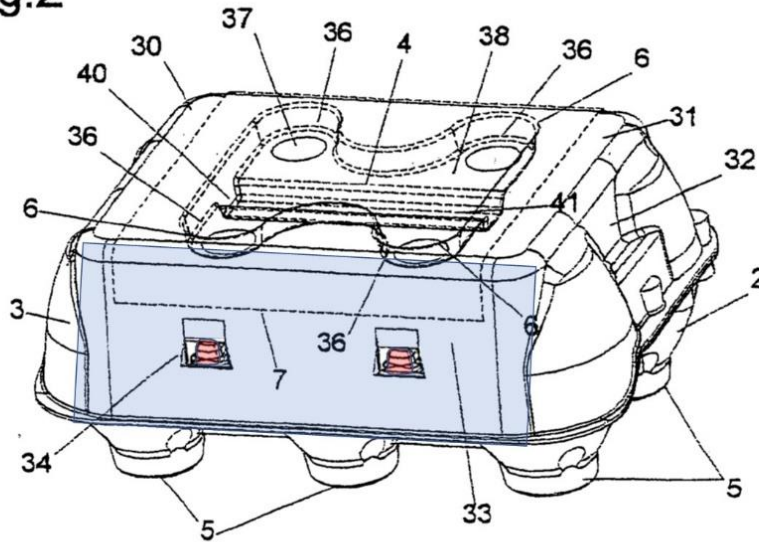
(i.e., are front, externally facing and not present within the closed container) of the internal cavity (see annotated Figs. 1, 2 and 4 below):



Ex.1009 at Fig. 1 and 4, annotated and partial views

121. Specifically, when Beese's container is in a closed position, a POSITA would have understood that both front part 33 and the front, externally facing surface of retaining nose 24 which is inserted into opening 34 are exterior facing, because neither is present within the closed container (see figure below). Therefore both front part 33 and the front, externally facing surface of retaining nose 24, including the first surface portion and the second surface portion respectively, are outside the internal volume of the container.

Fig.2



Ex.1009 at Fig. 2, annotated

122. Thus, Beese discloses *each first surface portion and each second surface portion of the container in the closed position are disposed at least substantially external with respect to the total internal volume.*

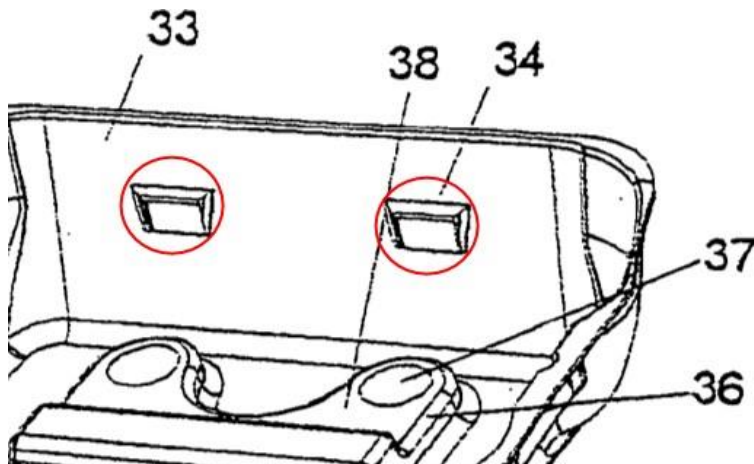
[1.12] wherein, in the closed position, the at least one first surface portion and at least one second surface portion are disposed at least substantially coplanar with respect to each other and

123. This limitation would have been obvious to a POSITA based on the disclosure of Beese.

124. In use, the front, externally facing surface of Beese's retaining noses 24 (*second surface portion*) are each respectively inserted into one of the openings 34 in front part 33 (*first surface portion*) when the container is closed. Ex.1009, [0027]

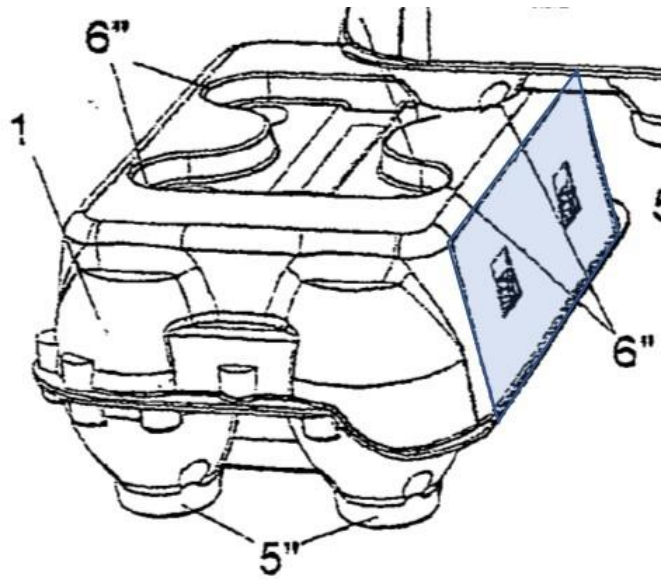
(“openings 34...are intended for interacting with the [retaining] noses 24 for the base part 2 in order to lock the lid part 3, in the closed state, to the base part 2.”).

125. Lid securing openings 34 in lid part 3’s front plane 33 provides a locking mechanism where retaining nose 24 is inserted into the opening 34. As illustrated in the annotated portion of Fig. 1, the opening 34 has an internally projecting ridge that interacts with the retaining nose 24 in order to lock the lid part 3 in the closed state to base part 2:



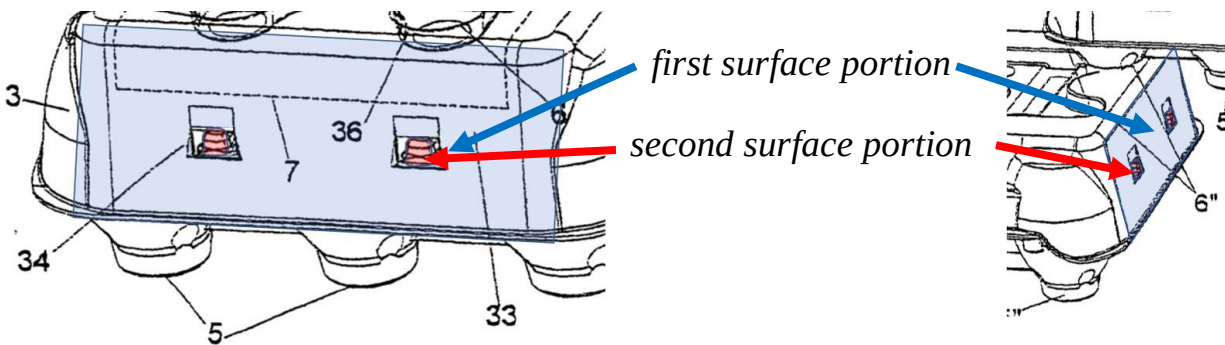
Ex.1009 at Fig. 1, annotated and partial view

126. As a result, and as illustrated in annotated Fig. 4 below, the above-described locking mechanism provides a flat surface (blue) on the external side of the container:



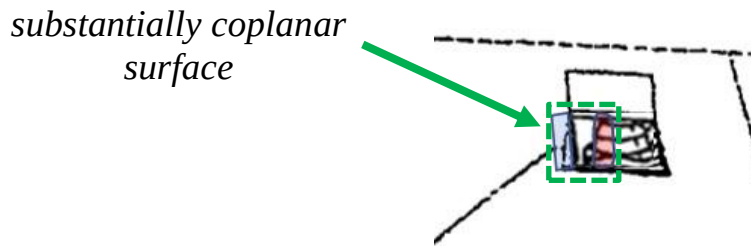
Ex.1009 at Fig. 4, annotated and partial view

127. When in the closed position, the front face of the retaining nose 24 on the base providing the second surface portion(s) (red) projects into the opening 34 of the front part 33 of the lid part 3:



Ex.1009, Figs. 2, 4 (annotated partial views)

128. In the resulting arrangement, the second surface portion(s) (red) and the first surface portion(s) (blue) are coplanar to one another:



Ex.1009 at Fig. 2, annotated and partial view

129. Thus, *in the closed position, the at least one first surface portion and at least one second surface portion are disposed at least substantially coplanar with respect to each other* would have been obvious to a POSITA based on the disclosure of Beese.

[1.13] wherein, together, comprise a surface configuration suitable to be overlayed by a membrane layer

130. This limitation would have been obvious to a POSITA based on the disclosure of Beese.

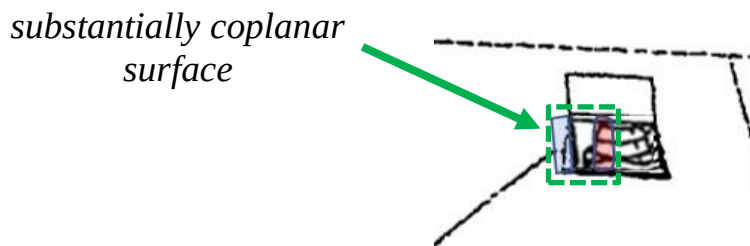
131. First, it is noted that claim 1 of the '070 Patent does not require the presence of a membrane layer; it merely requires the resulting surface to be “*suitable to be overlayed by a membrane layer*.” Nonetheless, to the extent that this limitation imposes some structural limitation, it would be obvious in view of Beese.

132. The '070 Patent states “in the closed position, the first and second planar areas include a substantially flat area suitable for receipt of an adhesive membrane, the substantially flat area including an edge of the first planar area and

at least part of the second planar area.” Ex.1001, 2:8-16. Thus, POSITA would have understood that a substantially coplanar area would be one that is “suitable to be overlayed by a membrane layer.”

133. As illustrated in [1.12] above, in a closed position, the front, externally facing surface of retaining nose 24 (*second surface portion*) projects into openings 34 in front face 33 (*first surface portion*) are *coplanar* to one another. Therefore, the first surface portion and the second surface portion, together, form a surface configuration and are suitable to be overlayed by a membrane layer.

134. For clarity, and as illustrated in [1.12], the surface configuration arising from where the second surface portion(s) (red) are “substantially coplanar” with the first surface portion(s) (blue) consists of:



Ex.1009 at Fig. 2, annotated and partial view

135. Moreover, Beese discloses the use of a sticker 7 (*i.e.*, a membrane layer) and illustrates the same in Figs. 2-3 (yellow):

Fig.2

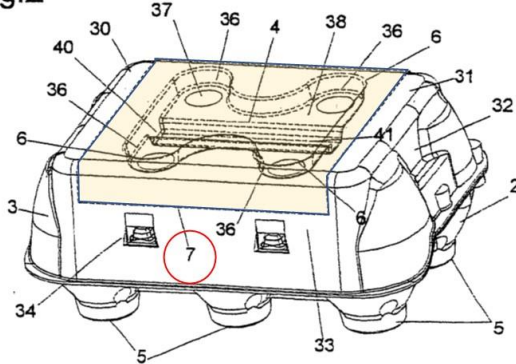
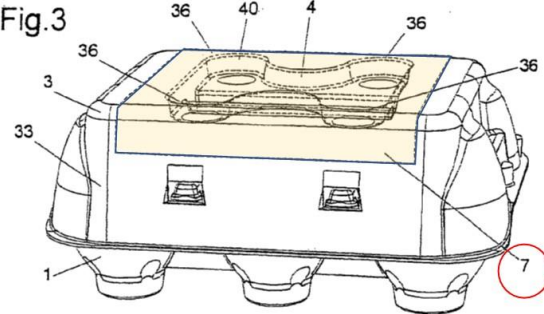


Fig.3



Ex.1009 at Fig. 2 and 3, annotated

136. Beese discloses:

“The sticker 7 has the further advantage that it also provides a printing surface which can be utilized for product information or advertising. The sticker 7 shown in FIG. 3 **may be of any desired size...** It is also possible for this sticker 7 to be of considerably larger configuration; **its front side may thus be extended as far as the bottom edge of the front part 33 of the lid part 3.**”

Ex. 1009, [0030]

137. This embodiment of Beese in which its sticker extends over the at least substantially coplanar first and second surface portions (i.e., the surface configuration) is illustrated as follows:

Fig.2

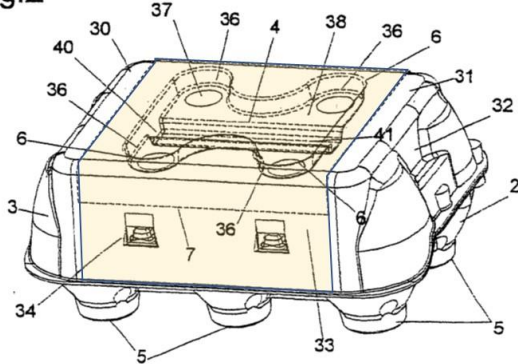
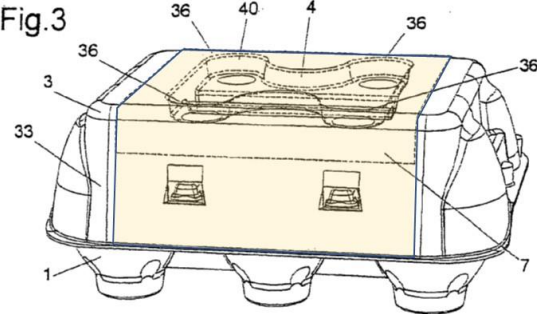


Fig.3



Ex.1009 at Fig. 2 and 3, annotated, modified based on [0030]

138. Therefore, not only does Beese provide a configuration wherein the first surface portion and the second surface portion are coplanar and are suitable to be overlayed by a membrane layer, Beese suggests an embodiment where the first surface portion and the second surface portion are coplanar and **are** overlayed by a membrane layer.

139. Thus, that the first surface portion and the second surface portion, *together, comprise a surface configuration suitable to be overlayed by a membrane layer* would have been obvious to a POSITA based on the disclosure of Beese.

[1.14] wherein, the membrane layer continues beyond the surface configuration in two substantially opposite directions to further overlay two immediately adjacent areas with respect to the surface configuration

140. Beese discloses this limitation.

141. Again, claim 1 of the '070 Patent does not require the presence of a membrane layer. Nonetheless, to the extent that this limitation imposes some structural limitation, this is disclosed by Beese.

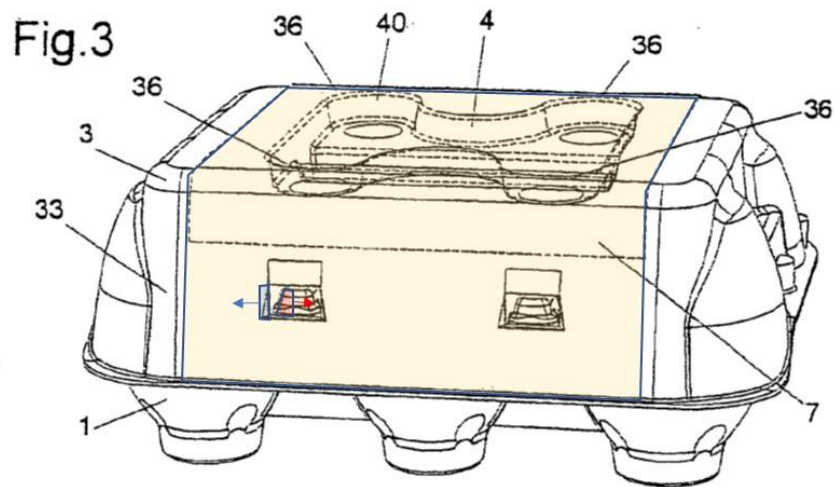
142. As discussed in [1.3], [1.7], and [1.12] above, Beese's front, externally facing surface of retaining nose 24 (*second surface portion*) is inserted into openings 34 in front part 33 (*first surface portion*) when the container is closed to form an *at least substantially coplanar* surface. This forms a *surface configuration* that is met with a portion of front part 33 (blue) and retaining nose 24 (red), respectively:



Ex.1009 at Fig. 2, annotated and partial view

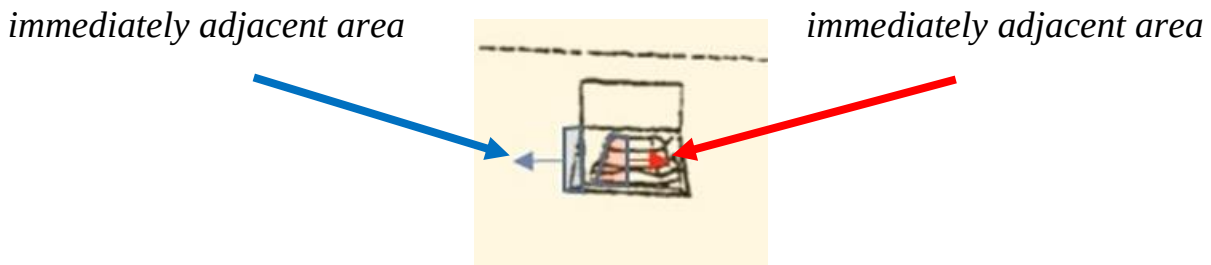
143. As noted in [1.13] above, [0030] of Beese describes an embodiment where the sticker 7 extends to the bottom of front part 33 and overlays the surface configuration. As the sticker 7 overlays the entirety of the possible surface configurations in this embodiment, a POSITA would have appreciated that the sticker 7 continues beyond the surface configuration in opposite directions and overlays the areas immediately adjacent to the surface configuration.

144. This surface configuration is illustrated in Fig. 3 of Beese, modified for the embodiment in [0030] in which the sticker 7 is extended to the bottom edge of the front part 33 of the lid part 3:



Ex.1009 at Fig. 3, annotated and modified based on [0030]

145. As illustrated above, and shown in the expanded view below, sticker 7 in Beese continues beyond the surface configuration in two substantially opposite directions to further overlay two immediately adjacent areas with respect to the surface configuration:



Ex.1009 at Fig. 3, annotated expanded view

146. Thus, Beese discloses *the membrane layer continues beyond the surface configuration in two substantially opposite directions to further overlay two immediately adjacent areas with respect to the surface configuration.*

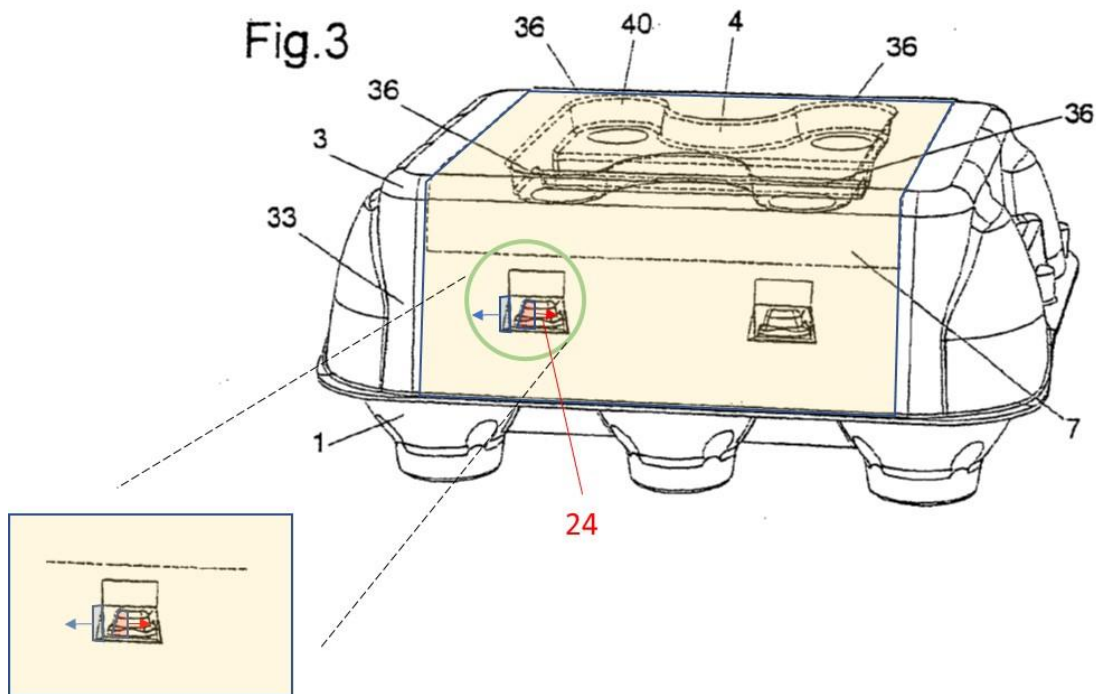
[1.15] wherein, one of the two immediately adjacent areas is disposed on the at least one flange and the other of the two immediately adjacent areas is disposed on the lid and

147. Beese discloses this limitation.

148. Again, claim 1 of the '070 Patent does not require the presence of a membrane layer. Nonetheless, to the extent that this limitation imposes some structural limitation, this is disclosed by Beese.

149. As illustrated in [1.14] above, sticker 7 in Beese continues beyond the surface configuration in two substantially opposite directions to further overlay two immediately adjacent areas with respect to the surface configuration. The location of these two immediately adjacent areas is shown in the annotated version of Fig. 3 below, which is modified to illustrate the embodiment in [0030] in which the sticker

7 is extended to the bottom edge of the front part 33 of the lid part 3. This illustration shows that the area immediately adjacent to the first surface area (blue arrow) is disposed on the lid and the area immediately adjacent to the second surface area (red arrow) is disposed on the flange (retaining nose 24).



Ex.1009 at Fig. 3, annotated and modified based on [0030]

150. Thus, Beese discloses *one of the two immediately adjacent areas is disposed on the at least one flange and the other of the two immediately adjacent areas is disposed on the lid.*

154. In each of these embodiments, while overlaying the surface configuration and the two immediately adjacent areas, the sticker 7 contours to the underlying shape of the container on at least the front part 33. This is at least because, as depicted in Figs. 2 and 3, above, the sticker 7 adheres to the outside of the container and Beese further explains that “sticker 7...hid[es] from the user’s view the item which has been inserted into the accommodating space 40.” Ex.1009, [0030]. If sticker 7 did not substantially contour to the outer shape of the container, it would not achieve the function of adhering to the container’s outside and/or hiding the inserted item from the user’s view. Accordingly, a POSITA would have understood that sticker 7 is substantially flat with respect to both front part 33 and the front, externally facing surface of retaining nose 24 that is substantially coplanar with front part 33 when the container is in a closed position.

155. Thus, Beese discloses *while overlaying the surface configuration and the two immediately adjacent areas, the membrane layer at least substantially contours to the underlying outer shape of the container and is substantially flat.*

b) Claim 2

[2.0] The container of claim 1

156. Beese renders obvious *the container of claim 1. See analysis of limitations [1.0]-[1.16].*

[2.1] wherein the lid is comprised of a material comprising two opposing sides with respect to each other, each opposing side comprising a generally continuous surface

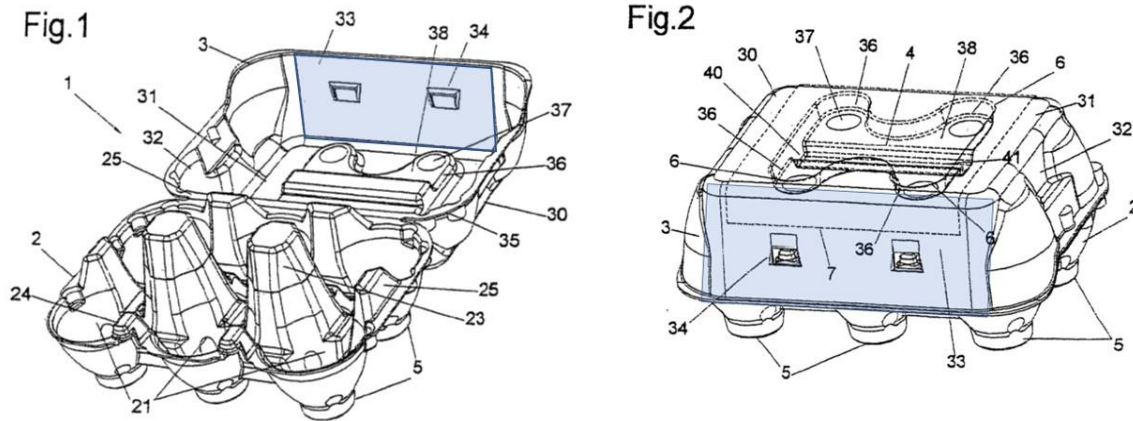
157. Beese discloses this limitation.

158. The '070 Patent does not use the terms nor provides a definition of “generally continuous surface.” However, “generally” and “continuous” have ordinary and customary meanings from which a POSITA would have understood the meaning of this limitation. Specifically, “generally” has an ordinary and customary meaning of “in a general manner... usually” or “for the most part” (Ex.1027, 485) and “continuous” has an ordinary and customary meaning of “marked by uninterrupted extension in space, time, or sequence” (Ex.1028, 251). Therefore, a POSITA would have understood a “generally continuous surface” as a surface that, for the most part, is unbroken or without interruption but that allows for some structural breaks including, for example, holes or ridges.

159. Beese covers containers made from any material, including paper pulp. Ex.1009, [0011]; *see also* Ex.1009, [0002] (citing FR-A-2441549 (Ex.1020) that claims a “molded paper pulp container” (Ex.1021, U.S. equivalent)).

160. Lid part 3 has a front part 33 with an inside and an outside (*a material comprising two opposing sides with respect to each other*). The surfaces of each of the opposing sides (highlighted in blue) are generally continuous (*i.e.*, the substantial

majority is without interruptions), having only two openings 34. See annotated Figs. 1-2 below:



Ex.1009 at Fig. 1 and 2, annotated

161. Thus, Beese discloses *the lid is comprised of a material comprising two opposing sides with respect to each other, each opposing side comprising a generally continuous surface.*

[2.2] wherein, the at least one first surface portion is disposed on the generally continuous surface of one of the two opposing sides and,

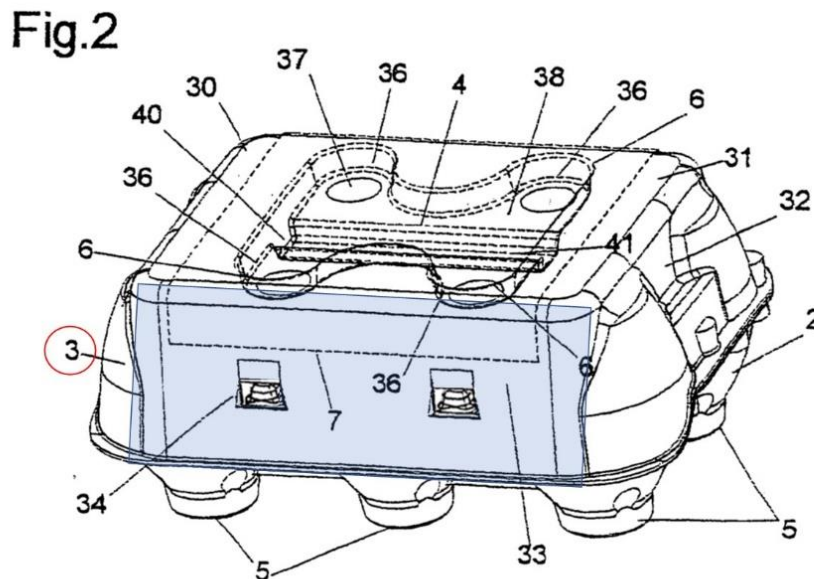
162. Beese discloses this limitation.

163. As discussed in [1.3], any area of Beese's front part 33 is a "first surface portion":



Ex.1009 at Fig. 2, annotated and partial view

164. This first surface portion is disposed on (or a part of) front part 33 (one of the two opposing sides of lid part 3), wherein front part 33 is a generally continuous surface and this generally continuous surface upon which the first surface portion is disposed is on the outside (i.e., exterior facing surface) of lid part 3:



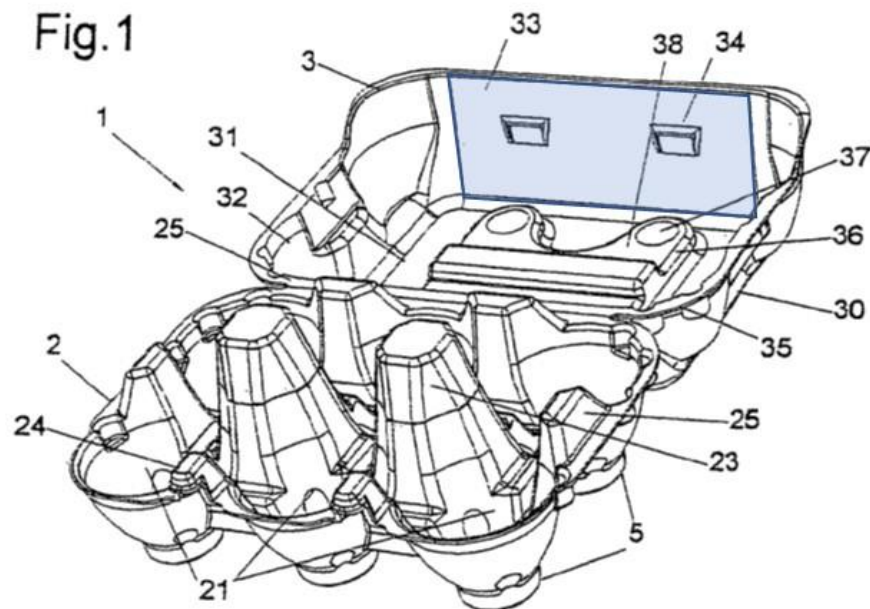
Ex.1009 at Fig. 2, annotated

165. Thus, Beese discloses *the at least one first surface portion is disposed on the generally continuous surface of one of the two opposing sides.*

[2.3] wherein, the substantially internal facing surface of the lid is disposed on the generally continuous surface of the other opposing side.

166. Beese discloses this limitation.

167. As discussed in [2.1], the opposing surface to the surface on which the first surface portion is disposed is the internally facing, generally continuous surface of the lid front part 33 (blue) as illustrated in the following annotated Fig. 1:



Ex.1009 at Fig. 1, annotated

168. Thus, Beese discloses *the substantially internal facing surface of the lid is disposed on the generally continuous surface of the other opposing side.*

c) Claim 3

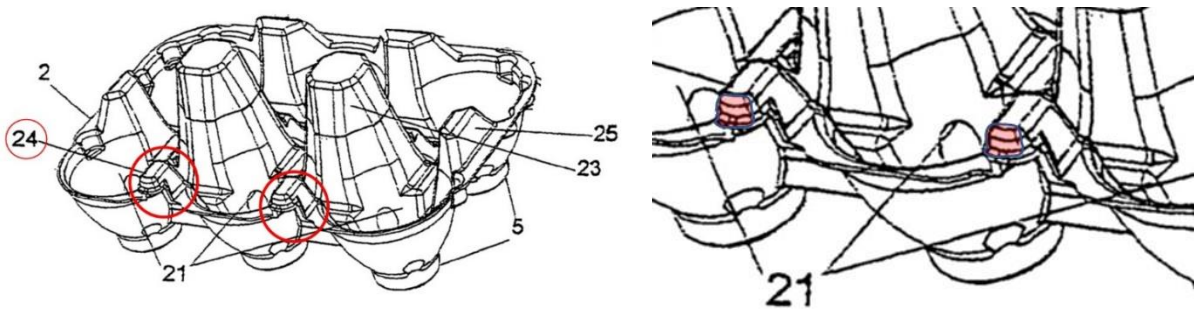
[3.0] The container of claim 2

169. Beese renders obvious *the container of claim 2*. See analysis of limitations [2.0]-[2.3].

[3.1] wherein, each second surface portion is substantially outside of the largest inner perimeter of the opening of the base.

170. Beese discloses this limitation.

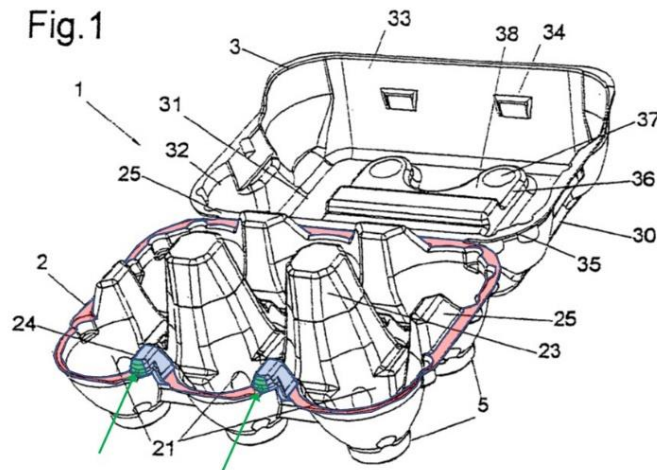
171. As discussed in [1.7] above, any area of the front, externally facing surface of Beese's retaining nose 24 is the *second surface portion*. The following annotated section of Fig. 1 below shows that the second surface portion(s) (red) located on retaining nose 24 are located on the external portion of base part 2:



Ex.1009, Fig. 1 (annotated partial view)

172. As discussed in [1.4], the inner perimeter of the opening of base part 2 is defined by the rim of the base (red). A POSITA would have understood the rim of the base to be the *largest inner perimeter* because the rim defines the *opening*. The retaining nose 24 (blue), including the front, externally exposed surface (green;

second surface portion), is thus located substantially outside of the inner perimeter of the opening of the base.



Ex.1009, Fig. 1 (annotated)

173. Thus, the Beese discloses *wherein, each second surface portion is substantially outside of the largest inner perimeter of the opening of the base.*

d) Claim 5

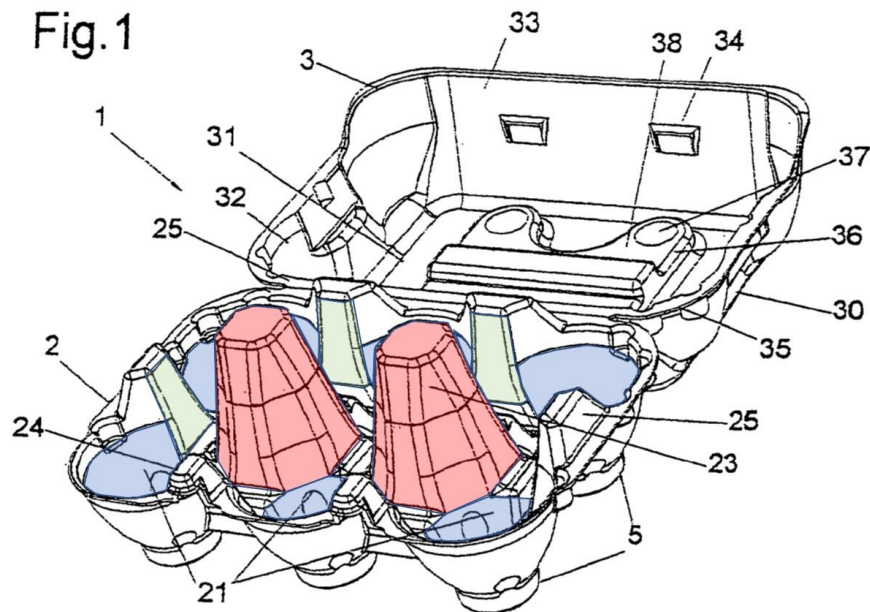
[5.0] The container of claim 2

174. Beese renders obvious *the container of claim 2. See analysis of limitations [2.0]-[2.3].*

[5.1] comprising at least one of, a rib, a depression and a recess.

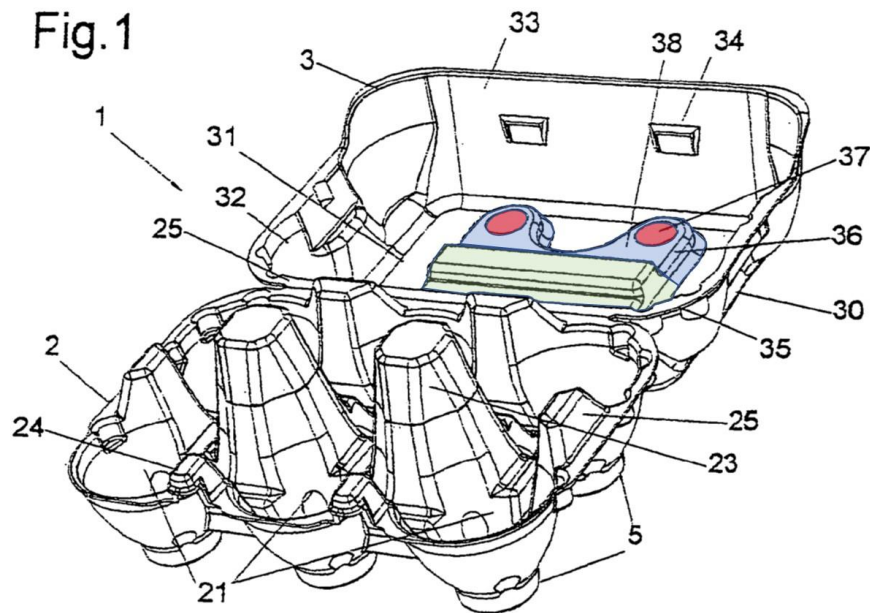
175. Beese discloses this limitation.

176. As illustrated in annotated Fig. 1, base part 2 of the container of Beese has shaped depressions 21 (blue) (See, Ex. 1009, [0026]), supports 23 (red), and spacer ribs (green) between shaped depressions 21, all of which hold eggs in place:



Ex.1009 at Fig. 1, annotated

177. In addition, the following annotated Fig. 1 shows that lid part 3 of Beese's container has retaining depressions 36 (blue) to help "limit undesired movement of the top side of the eggs. This makes it possible to avoid damage by way of eggs in adjacent shaped depressions 11 striking against one another as a result of abrupt and rough handling of the egg box." Ex. 1009, [0028]. Further, lid part 3 has convexly upward curved recesses 37 (red) and inward impression of trough 4 (green):



Ex.1009 at Fig. 1, annotated

178. Thus, Beese discloses *comprising at least one of, a rib, a depression and a recess.*

e) Claim 8

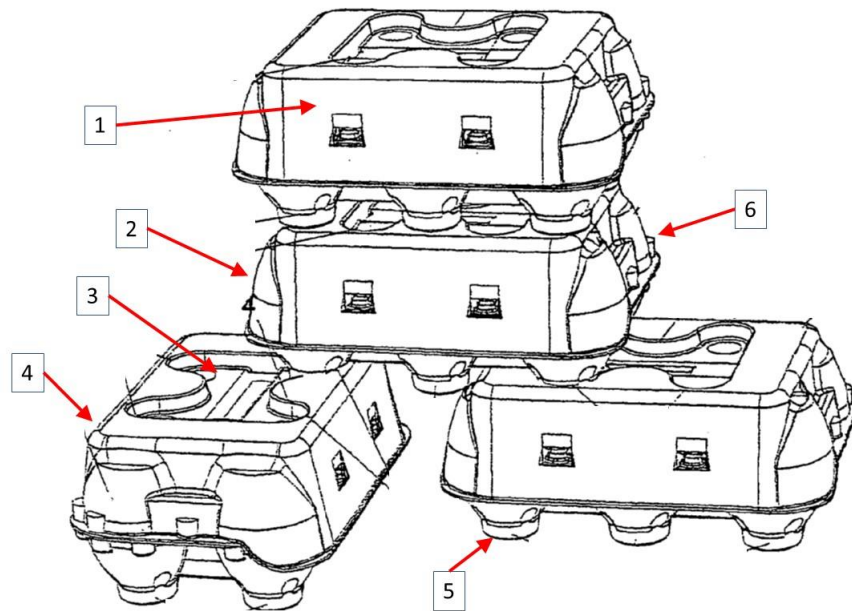
[8.0] The container of claim 2

179. Beese renders obvious *the container of claim 2. See analysis of limitations [2.0]-[2.3].*

[8.1] wherein, the at least one first surface portion and at least one second surface portion are orientated so that the surface configuration is disposed at least substantially on a side of the container in the closed position when in use.

180. Beese discloses this limitation.

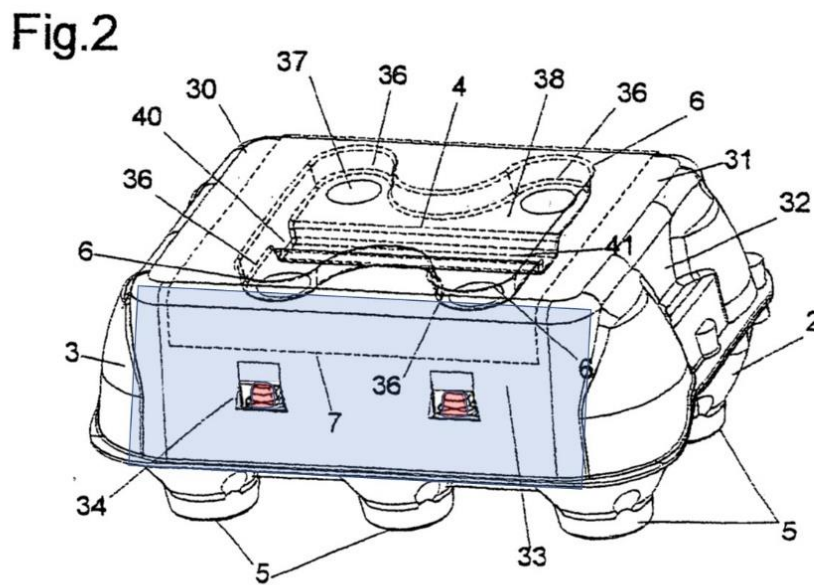
181. As a preliminary matter, this claim does not specify what constitutes a “side”. At least contextually, a POSITA would have understood that this claim does not intend to include “inside” and “outside” as a “side”, but rather the “side” being referred to is one of the external faces of the container. To this end, the container of Beese has six (6) sides as follows:



Ex.1009 at Fig. 4, annotated

182. As discussed in [1.3], [1.7], [1.12], and [1.13], when Beese’s container is closed, the front, externally facing surface of retaining nose 24 (*second surface portion*) is inserted into each opening 34 in front part 33 (*first surface portion*). The first surface portion and the second surface portion constituting an *at least substantially coplanar* surface that creates a *surface configuration* are orientated so

that the surface configuration is disposed on a side (the front side, (1) in the illustration above) of the container when in the closed position. This is illustrated in the following annotated figure, which shows that the first surface portion(s) is on lid part 3 (part of front part 33, blue) and second surface portion(s) is on base part 2 (part of retaining nose 24, red):



Ex.1009 at Fig. 2, annotated

183. Thus, the Beese discloses *the at least one first surface portion and at least one second surface portion are orientated so that the surface configuration is disposed at least substantially on a side of the container in the closed position when in use.*

f) **Claim 9**

[9.0] The container of claim 2

184. Beese renders obvious *the container of claim 2*. See analysis of limitations [2.0]-[2.3].

[9.1] wherein in the closed position, the surface configuration is disposed at an oblique angle to the opening of the base.

185. Beese discloses this limitation.

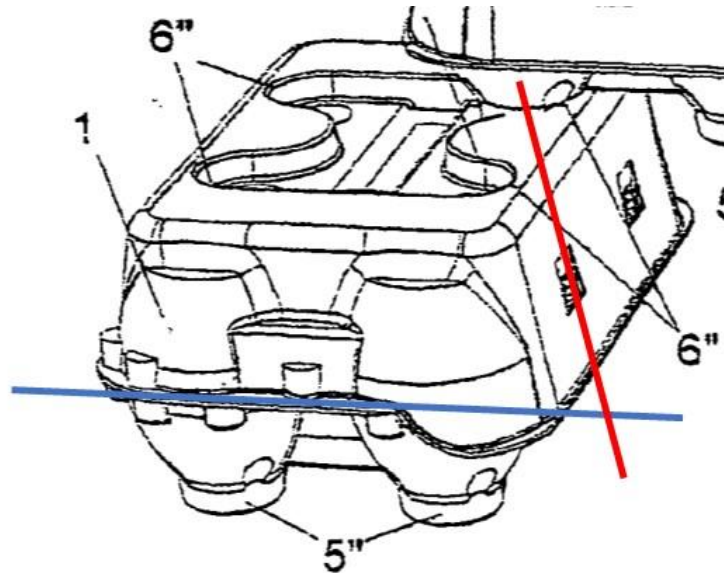
186. The '070 Patent discusses the arrangement of the “first and second planar areas” relative to the lid and base, describing the same as being on an angle (“FIGS. 18 to 21 illustrate how the first and second planar areas may be disposed **at an angle** to the lid and to a rim on the base.” Ex.1001, 6:34-36.) The '070 Patent further describes the extensions corresponding to the “first and second planar areas” as being at an obtuse angle, which is also true of Figures 20-21:

Referring first to FIGS. 18 and 19, container 100 has lid 104 hinged to base 102 at 16. Lid 104 includes extension 106 which, in use, is inclined upwardly at an **obtuse angle** from lid 104. Base 102 has rim 22 which has extension 108, in use inclined at an **obtuse angle** from rim 22.

Ex. 1001, 6:37-42.

187. However, the term “oblique angle” does not appear in the ’070 Patent. Nonetheless, a POSITA would have understood the term “oblique angle” to refer to an angle that is not a right angle or a multiple of a right angle. Thus, an oblique angle is either an acute angle ($0^\circ < X < 90^\circ$) or an obtuse angle ($90^\circ < X < 180^\circ$).

188. As illustrated in annotated, expanded view of Fig. 4, the plane of the surface configuration (red line) is at an oblique angle (acute angle) relative to the opening of the base (blue line) in the container disclosed by Beese:



Ex.1009 at Fig. 4, annotated and partial view

189. Thus, Beese discloses *wherein in the closed position, the surface configuration is disposed at an oblique angle to the opening of the base.*

g) Claim 11

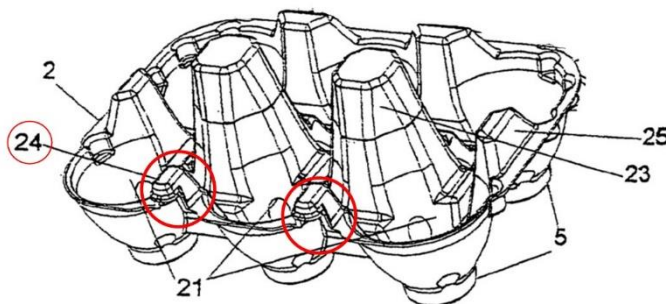
[11.0] The container of claim 2

190. Beese renders obvious *the container of claim 2*. See analysis of limitations [2.0]-[2.3].

[11.1] wherein, in the closed position, the at least one flange is comprised of a material comprising two opposing sides with respect to each other, each opposing side comprising a generally continuous surface

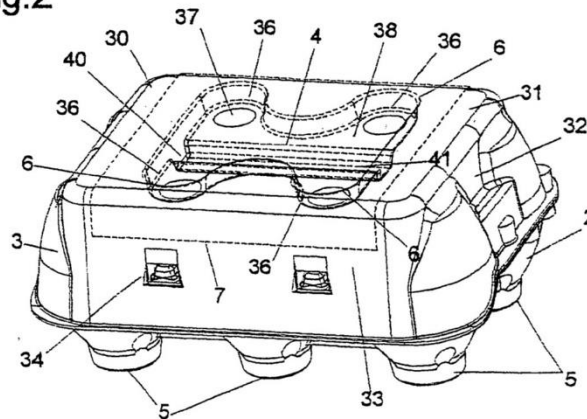
191. This limitation would have been obvious to a POSITA based on the disclosure of Beese.

192. As discussed in [1.7], in the container disclosed by Beese, retaining nose 24 (flange) is on the front side of base part 2. Ex.1009, [0026]. Retaining noses 24 each have an outwardly and downwardly extending retainment projection for locking engagement with opening 34. This arrangement is illustrated in Figs. 1 and 2, which are annotated below for emphasis:



Ex.1009 at Fig. 1, annotated and partial view

Fig.2



Ex.1009 at Fig. 2

193. As further described in [1.7], the structure of retaining nose 24 starts from an internal surface of the front sidewall of base part 2 and continues upward as a continuation of the internal surface to create the retaining nose 24. A POSITA would have recognized that the material of Beese's retaining nose 24 would have two opposing sides with respect to each other: one facing the interior of the container and one that is externally facing. This would be true for the container in an open and closed position. The surface of each opposing side of retaining nose 24 is generally continuous because the substantial majority of each surface is without interruptions. See also [2.1], *supra*.

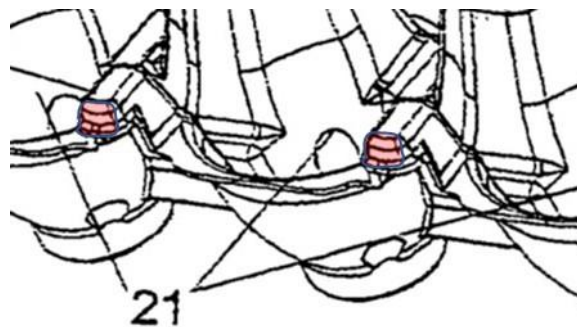
194. Thus, wherein, in the closed position, the at least one flange is comprised of a material comprising two opposing sides with respect to each other,

each opposing side comprising a generally continuous surface would have been obvious to a POSITA based on the disclosure of Beese.

[11.2] wherein, at least one second surface portion is disposed on the generally continuous surface of one of the two opposing sides and,

195. Beese discloses this limitation.

196. As discussed in [1.7], any area of the front, externally facing surface of retaining nose 24 (red highlighted region) is the *second surface portion*:



Ex.1009 at Fig. 1, annotated and partial view

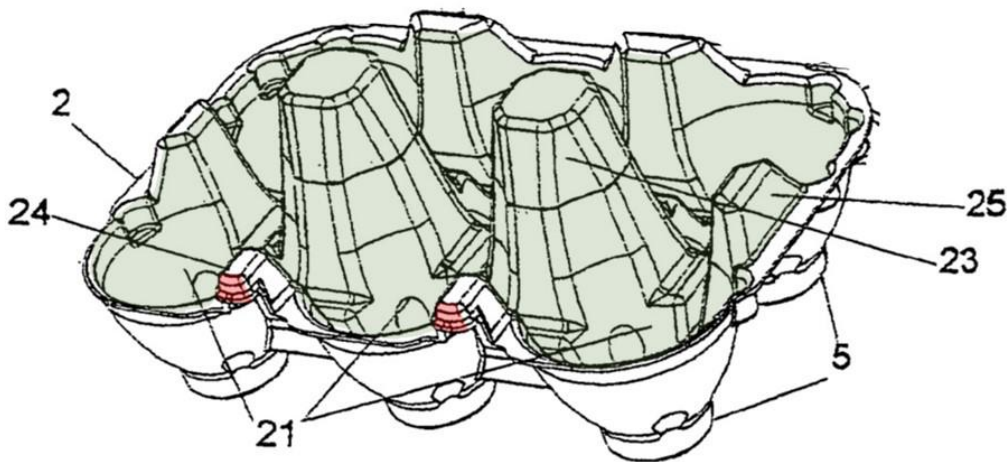
197. A POSITA would have understood that the front face of Beese's retaining nose 24 constituting the second surface portion is disposed on one of the two opposing sides of the retaining nose 24. Further, the surface of each side of retaining nose 24 is generally continuous.

198. Thus, Beese discloses *wherein, at least one second surface portion is disposed on the generally continuous surface of one of the two opposing sides.*

[11.3] wherein, the generally continuous surface of the other opposing side is disposed at least substantially external with respect to the internal cavity.

199. Beese discloses this limitation.

200. As discussed in [1.4] and as illustrated in the annotated, expanded view of Fig. 1 of Beese below, the entirety of retaining nose 24 is external to the internal cavity of the container. Specifically, the second surface (inside face opposite the front face of retaining nose 24 (red) is external to the internal cavity (green). Further, the other opposing side of the flange (retaining nose 24) that faces the hinge at the back of the container is also above the plane of the internal cavity and, thus, substantially external with respect to the internal cavity:



Ex.1009 at Fig. 1, annotated and partial view

201. Thus, Beese discloses *wherein, the generally continuous surface of the other opposing side is disposed at least substantially external with respect to the internal cavity.*

h) Claim 16

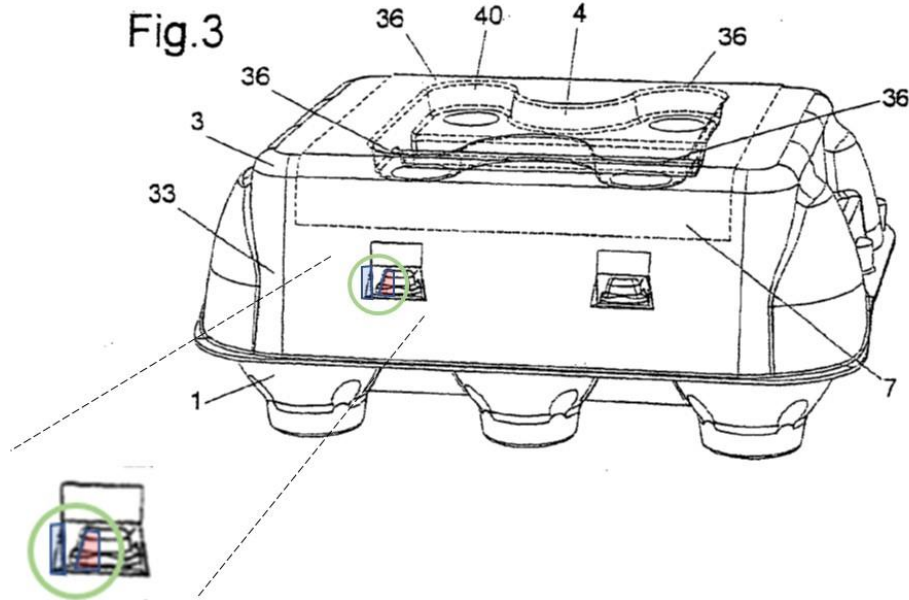
[16.0] The container of claim 1

202. Beese renders obvious *the container of claim 1. See analysis of limitations [1.0]-[1.16].*

[16.1] wherein the surface configuration comprises a circumferential dimension which is substantially less than each of, the largest internal perimeter of the opening of the base and the outermost boundary of the lid.

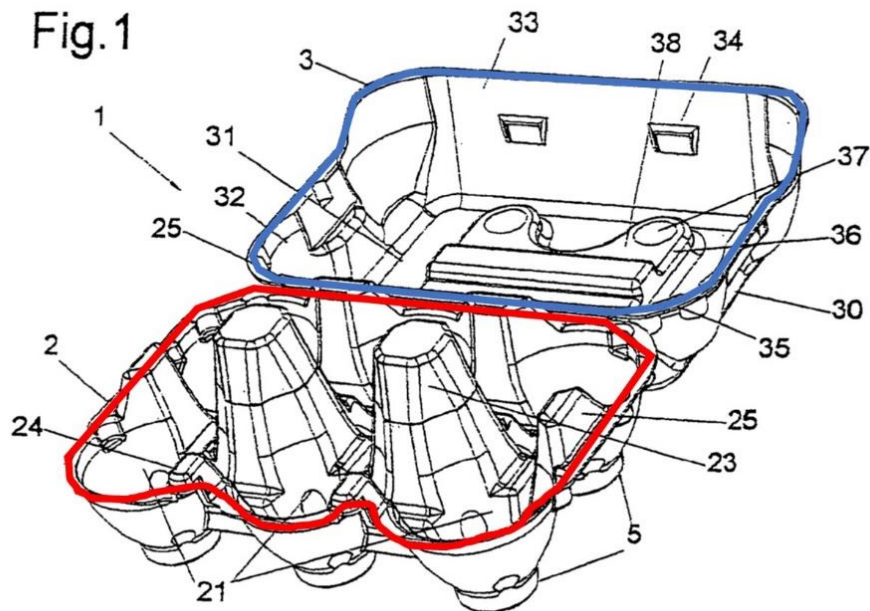
203. Beese discloses this limitation.

204. As discussed in [1.3], [1.7], [1.12], and [1.13], the front, externally facing surface of Beese's retaining nose 24 (*second surface portion*) is inserted into each opening 34 in front part 33 (*first surface portion*) when the container is closed. The resulting surface configuration is met with a portion of front part 33 and the front, externally facing surface of retaining nose 24, respectively. Although the dimensions of the surface configuration is undefined in the '070 patent, a POSITA would have thus understood, based on Fig. 3, that the surface configuration has a *circumferential dimension* (green circle).



Ex.1009 at Fig. 3, annotated

205. The largest internal perimeter of the opening of the base part 2 is defined by the rim of its opening (red). The outermost boundary of lid part 3 is also defined by the rim of its opening (blue). Both of these regions which represent the point where the base and lid, respectively, end are highlighted in the following figure. The *circumferential dimension of surface configuration*, depicted above in Fig. 3, is *substantially less* than each of the *perimeter* and *boundary*.



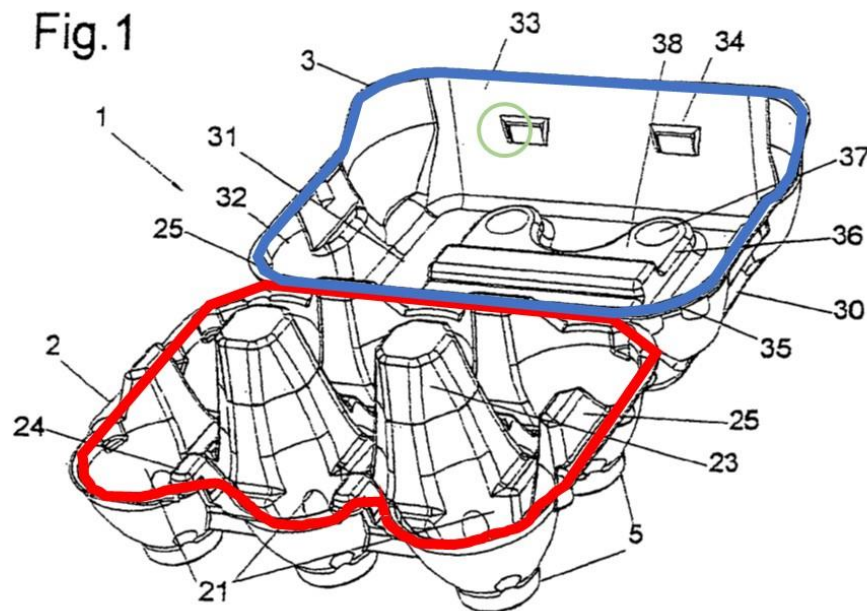
Ex.1009 at Fig. 1, annotated

206. Further evidence that the circumferential dimension of the surface configuration is substantially less than each of, the largest internal perimeter of the opening of the base and the outermost boundary of the lid is provided by Figs. 1 and 3 of Beese.

207. In Fig. 1, the egg carton of Beese is illustrated in a 3 x 2 egg configuration. This is the same egg carton that is illustrated in Fig. 3. As shown in Fig. 3, the surface configuration need only occupy an area of adjacent surfaces on the lid part 3, front part 33 (blue in Fig. 3 above) and the base part 2, retaining nose 24 (red in Fig. 3 above) thus the circumferential dimension is only that which would encircle these two adjacent areas (green circle in Fig. 3 above). In the exemplary

circumferential dimension illustrated in Fig. 3 above, this area is only slightly larger than opening 34.

208. Fig. 1 of Beese below shows opening 34 in scale to both the largest internal perimeter of the opening of the base and the outermost boundary of the lid onto which the substantially smaller circumferential dimension of the surface configuration (green circle) is superimposed.



Ex.1009 at Fig. 1, annotated

209. Thus, Beese discloses *wherein the surface configuration comprises a circumferential dimension which is substantially less than each of, the largest internal perimeter of the opening of the base and the outermost boundary of the lid.*

i) Claim 17

[17.0] The container of claim 1

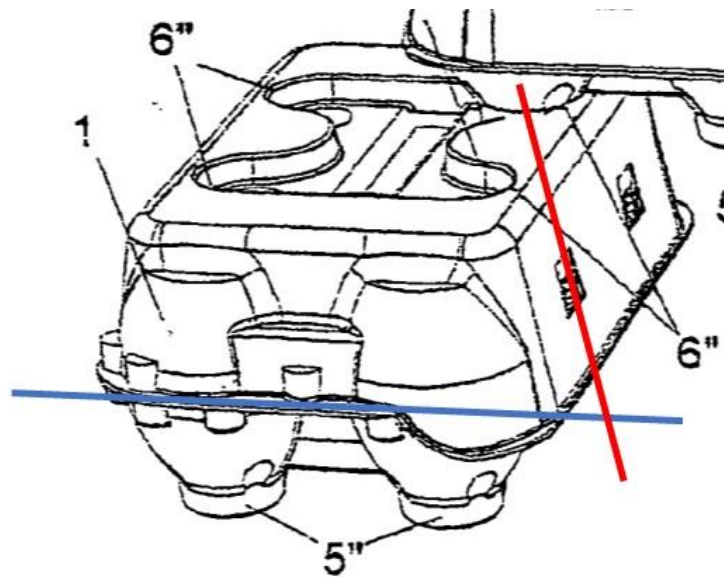
210. Beese renders obvious *the container of claim 1*. See analysis of limitations [1.0]-[1.16].

[17.1] wherein in the closed position, the surface configuration is at least partially disposed at an oblique angle to the opening of the base.

211. Beese discloses this limitation.

212. As discussed in [9.1], the term “oblique angle” does not appear in the ’070 Patent. Nonetheless, a POSITA would have understood the term “oblique angle” to refer to an angle that is not a right angle or a multiple of a right angle. Thus, an oblique angle is either an acute angle ($0^\circ < X < 90^\circ$) or an obtuse angle ($90^\circ < X < 180^\circ$).

213. As illustrated in annotated, expanded view of Fig. 4, the plane of the surface configuration (red line) is at an oblique angle (acute angle) relative to the opening of the base (blue line) in the container disclosed by Beese:



Ex.1009 at Fig. 4, annotated and partial view

214. Thus, Beese discloses *wherein in the closed position, the surface configuration is at least partially disposed at an oblique angle to the opening of the base.*

j) Claim 18

[18.0] The container of claim 1

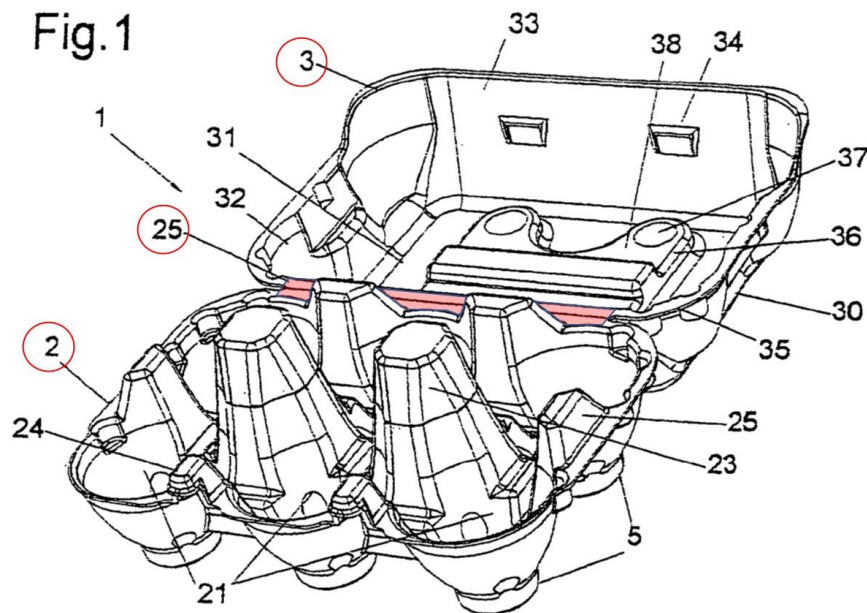
215. Beese renders obvious *the container of claim 1. See analysis of limitations [1.0]-[1.16].*

[18.1] further comprising means for mechanically attaching the lid to the base.

216. Beese discloses this limitation.

217. Beese discloses: “The egg box, which is designated 1 overall, comprises a bottom part 2 and a lid part 3, **which is fastened for swing action on**

the bottom part 2 via a flexible hinge 25, and a sticker 7 fitted on said lid part (see FIG. 3)” Ex.1009, [0025]. The flexible hinge 25, which is a *means for mechanically attaching*, attaches lid part 3 (*lid*) to base part 2 (*base*). The hinge 25 (red area) is illustrated in Fig. 1:



Ex.1009 at Fig. 1, annotated

218. Thus, Beese discloses *further comprising means for mechanically attaching the lid to the base*.

k) Claim 19

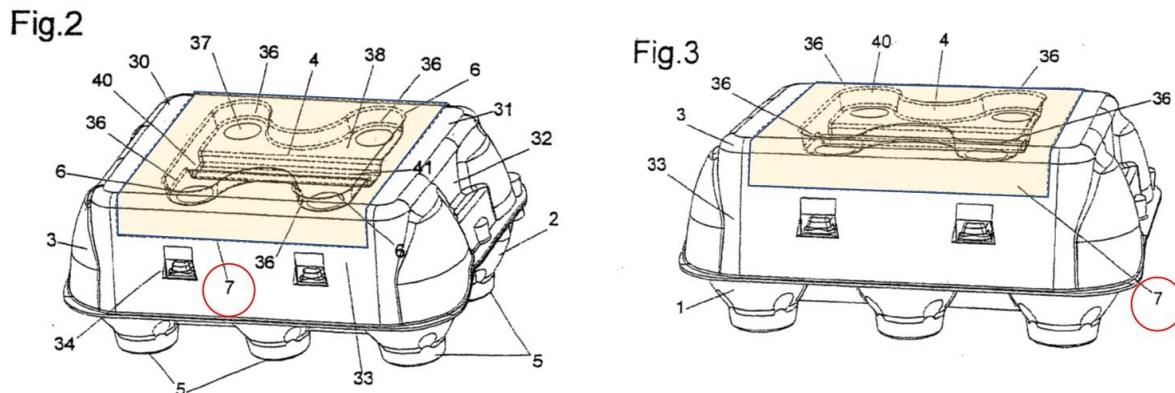
[19.0] The container of claim 1

219. Beese renders obvious *the container of claim 1*. See analysis of limitations [1.0]-[1.16].

[19.1] further comprising the membrane layer.

220. Beese discloses this limitation.

221. Beese discloses the use of a sticker 7 (i.e., a membrane layer) and illustrates the same in Figs. 2-3 (yellow) wherein the sticker 7 is “adhesively bonded to the top part 31 of the lid part 3.” Ex.1009, [0030]:



Ex.1009 at Fig. 2 and 3, annotated

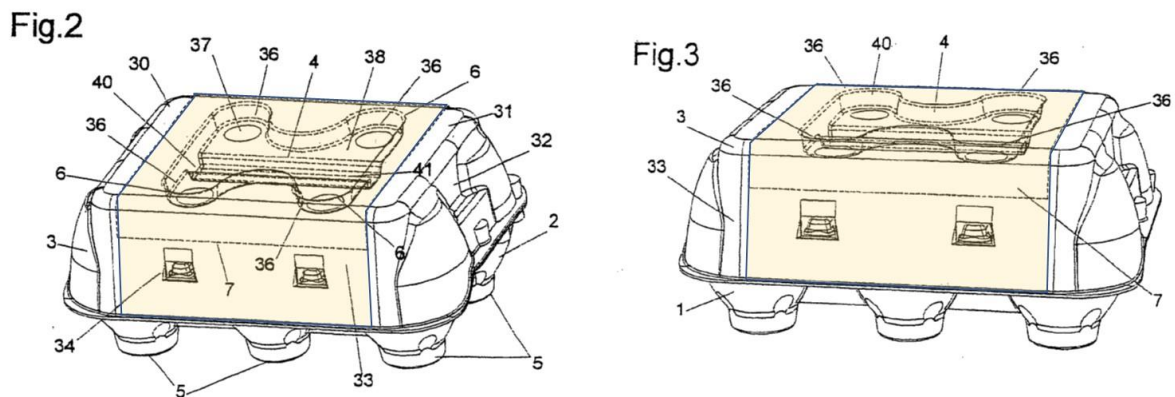
222. Beese further discloses:

"The sticker 7 has the further advantage that it also provides a printing surface which can be utilized for product information or advertising. The sticker 7 shown in FIG. 3 **may be of any desired size...** It is also possible for this sticker 7 to be of considerably larger configuration; **its front side may thus be**

**extended as far as the bottom edge of the front part 33 of the
lid part 3."**

Ex. 1009, [0030]

223. This embodiment of Beese is illustrated as follows:



Ex.1009 at Fig. 2 and 3, annotated, modified based on [0030]

224. Thus, Beese discloses *further comprising the membrane layer.*

l) Claim 20

[20.0] The container of claim 19

225. Beese renders obvious *the container of claim 19. See analysis of limitations [19.0]-[19.1].*

[20.1] wherein, in the closed position, the overall size of the surface configuration together with the two immediately adjacent areas is, in combination, substantially less in area than the membrane layer.

226. Beese discloses this limitation.

227. As discussed in [1.3], [1.7], [1.12], and [1.13], the front, externally facing surface of Beese's retaining nose 24 (*second surface portion*) is inserted into each opening 34 in front part 33 (*first surface portion*) of lid part 3 when the container is closed. The resulting *surface configuration* (light blue and light red) is met with a portion of front part 33 and retaining nose 24, respectively, which are coplanar to one another.



Ex.1009 at Fig. 2, annotated and partial view

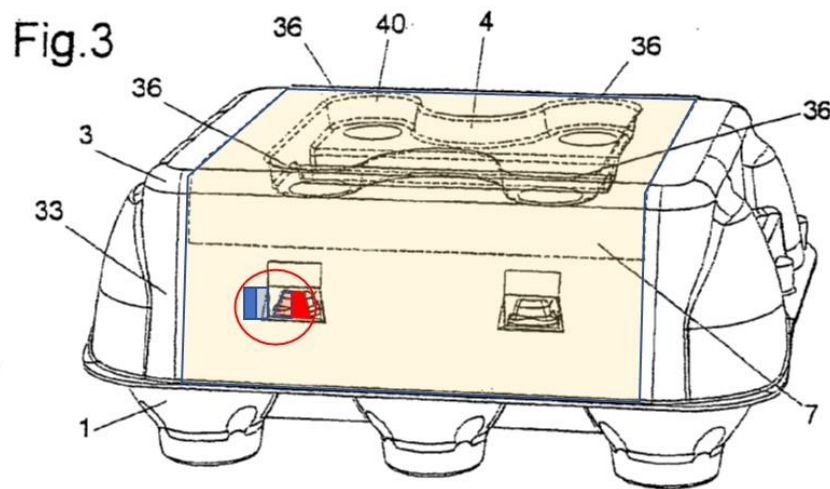
228. The following illustration demonstrates the surface configuration (light blue and light red) together with the immediately adjacent areas (dark blue and dark red):



Ex.1009 at Fig. 2, annotated and partial view

229. As further discussed in [1.14], and shown below, Beese's sticker 7 (*membrane layer*) overlays two *immediately adjacent areas* to the surface configuration on the front part 33 and the front, externally facing surface of retaining nose 24 (dark red and dark blue, respectively). Specifically, as discussed in [1.13]

above, [0030] of Beese describes an embodiment where sticker 7 may be “considerably larger” such that **“its front side may thus be extended as far as the bottom edge of the front part 33 of the lid part 3.”** Ex.1009, [0030] Thus, sticker 7 overlays the surface configuration and immediately adjacent areas. As such, sticker 7 has a substantially larger area than the overall size of the surface configuration with the two immediately adjacent areas (in circle below).



Ex.1009 at Fig. 3, annotated and modified based on [0030]

230. Thus, Beese discloses *wherein, in the closed position, the overall size of the surface configuration together with the two immediately adjacent areas is, in combination, substantially less in area than the membrane layer.*

m) Claim 21

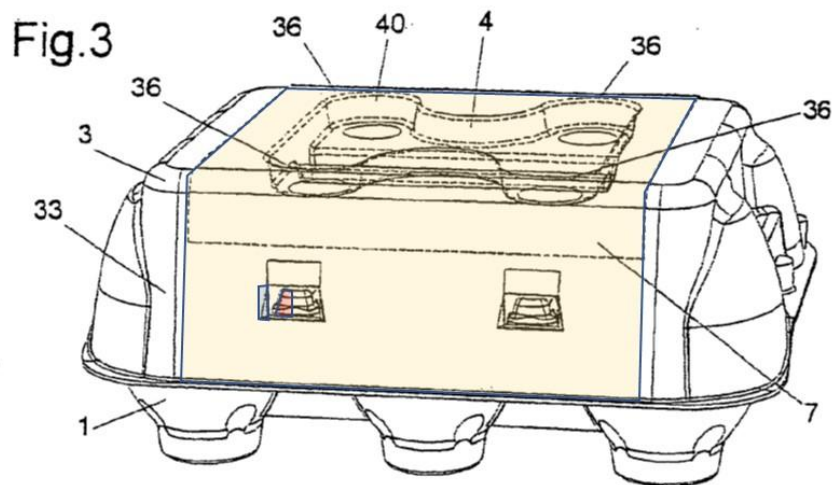
[21.0] The container of claim 19

231. Beese renders obvious *the container of claim 19*. See analysis of limitations [19.0]-[19.1].

[21.1] wherein, in the closed position, the membrane layer is affixed to at least one part of the surface configuration.

232. Beese discloses this limitation.

233. As noted in [1.13] above, [0030] of Beese describes an embodiment where the sticker 7 extends to the bottom of front part 33 and overlays the surface configuration. In this embodiment, the sticker 7 is affixed to at least one part of the surface configuration – the first surface portion (blue):



Ex.1009 at Fig. 3, annotated and modified based on [0030]

234. Thus, Beese discloses *wherein, in the closed position, the membrane layer is affixed to at least one part of the surface configuration.*

n) Claim 24

[24.0] The container of claim 1

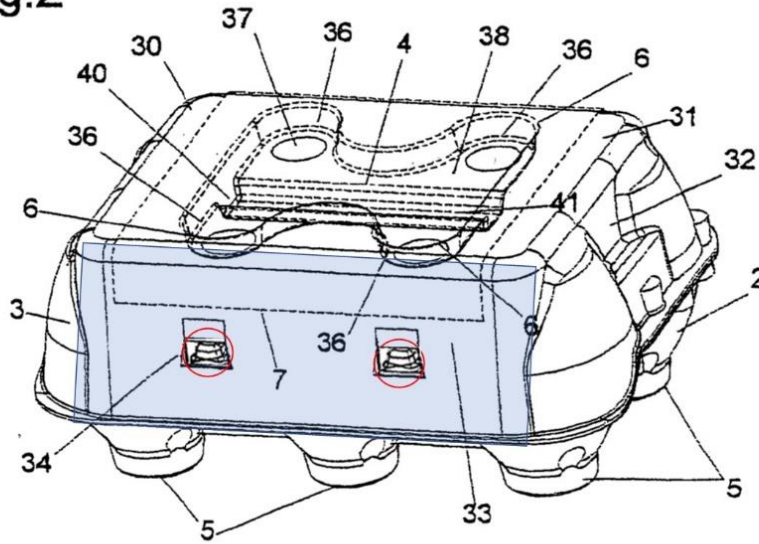
235. Beese renders obvious *the container of claim 1. See analysis of limitations [1.0]-[1.16].*

[24.1] wherein the at least one first surface portion is adjacent to at least one locating hole on the lid.

236. Beese discloses this limitation.

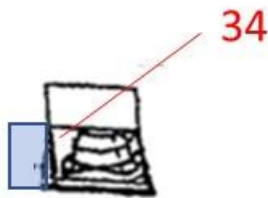
237. The lid part 3 has two openings 34 (i.e., *locating holes*) on the front part 33 which contains the first surface portion(s). Thus, at least one first surface portion (blue) is adjacent to the openings 34.

Fig.2



Ex.1009 at Fig. 2, annotated

238. As a more specific example, the following annotated figure and shows that the first surface portion (blue) of front part 33 is adjacent to the opening 34:



Ex.1009 at Fig. 2, annotated and partial view

239. Thus, Beese discloses *wherein the at least one first surface portion is adjacent to at least one locating hole on the lid.*

o) Claim 25

[25.0] The container of claim 24

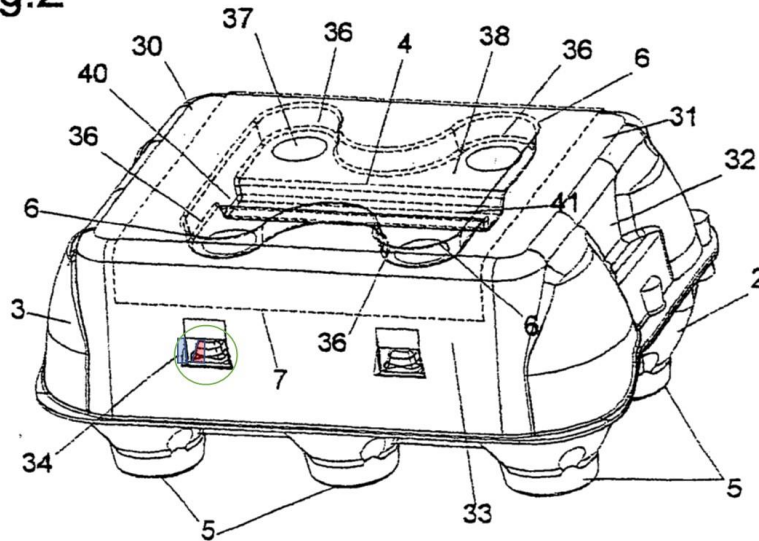
240. Beese renders obvious *the container of claim 24*. See analysis of limitations [24.0]-[24.1].

[25.1] wherein, in the closed position, the at least one locating hole at least partially locates with at least one second surface portion to comprise the surface configuration.

241. Beese discloses this limitation.

242. As discussed in [1.3], [1.7], [1.12], and [1.13], the front, externally facing surface of Beese's retaining nose 24 (*second surface portion*) is inserted into each opening 34 (*locating hole*) when the container is in a *closed position*. The front face of each retaining nose 24 projects (*partially locates*) into openings 34 to form a *substantially coplanar* surface with front part 33 (*first surface portion*) that creates a *surface configuration* with a portion of front part 33 and retaining nose 24, respectively, which are coplanar with each other.

Fig.2



Ex.1009 at Fig. 2, annotated

243. Thus, Beese discloses *wherein, in the closed position, the at least one locating hole at least partially locates with at least one second surface portion to comprise the surface configuration.*

B. Claims 22 and 23 are obvious over Beese in view of King

244. It is my opinion that Beese in view of King would render obvious, to a POSITA, the subject matter of claims 22 and 23 of the '070 Patent.

1. Overview of Beese

245. See Section IX.A.1 above.

2. Overview of King²

246. King published as GB 2 415 186 A on December 21, 2005, based on U.K. application No. 0506845.7, which was filed on April 5, 2005 and claimed priority to GB application No. 0413194, filed June 14, 2004. Ex.1010, face at (11), (12), (13), (21), (22), (30), and (43).

247. King's publication date (December 21, 2005) is more than one year prior to the earliest non-provisional filing date (February 12, 2008) of the '070 Patent, and more than one year before the date to which the '070 Patent attempts to claim foreign priority (February 12, 2007).

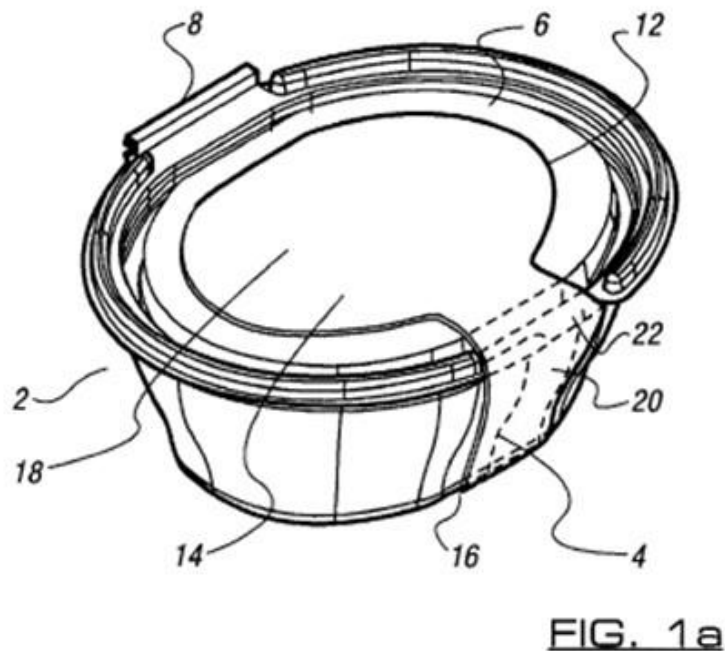
248. King is titled "Container and lid with tamper evident label." Ex.1010, (54). King discloses a food container having a lid and a base. Ex.1010, Abstract.

249. King discloses a container for holding an item such as, although not exclusively, a foodstuff. Ex.1010, p. 1. In an embodiment, King provides a container having a lid and a base and provides an effective way of allowing the same to have a tamper evident characteristic but without the need for a line of weakening or frangible line to be provided. Ex.1010, pp. 1-2. A "sheet material" in the form of a label is adhered to "both the base and lid and extends between the same." Ex.1010, p. 2. King explains it is desirable to provide evidence of whether the container or its

² I refer to the original page numbering of King.

contents have been tampered with before it has been purchased. Ex.1010, p. 1. A benefit of its label, then, is to provide this tamper evidence: “if the label is torn then it is clear that the same has been tampered with and that access may have been gained to the contents of the container.” Ex.1010, p. 3

250. Fig. 1a, below, depicts King’s disclosed foodstuffs container:



Ex.1010 at Fig. 1a

251. King is analogous art to the '070 Patent at least because King relates to the same field of endeavor as the '070 Patent. The '070 Patent defines the field of its invention as being “containers” and, more specifically, to “containers to hold

fresh food or produce.” Ex.1001, 1:18-20. King also relates to containers for holding foodstuffs. Ex.1010, pp. 1-2.

252. King is also analogous art to the '070 Patent because King is reasonably pertinent to a problem that the inventor faced. A problem that the '070 Patent seeks to solve is to alleviate concerns that the state of the art allegedly failed to provide adequate flat surfaces for label application that can act as a tamper evident seal. Ex.1001, 1:30-67. King addresses this very same problem. Ex.1010, pp. 1-2.

253. King was not before the Examiner during prosecution of the '070 Patent.

3. Reasons to Combine Beese with King

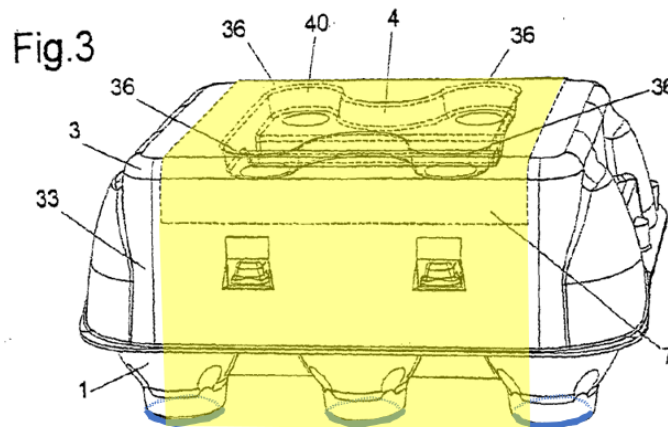
254. A POSITA would have combined Beese with King because they both relate to food storage containers with locking mechanisms. Ex.1009, [0009], [0027]; Ex.1010, Abstract. As such, a POSITA would have looked to both references when constructing a protective locking egg container.

255. A POSITA would have been motivated to combine Beese and King and doing so would have been within the POSITA's skillset. The combination would have been obvious because it represents merely the use of a known structure (King's tamper evidence label) to improve structures that together have a similar function (Beese's locking “retaining nose 24” and “sticker 7”) by making more efficient and effective locking features that would alert the purchaser if the container's internal

contents were tampered with. King teaches the security and tamper evidence benefits of its label that attaches to both the lid and the base: “if the label is torn then it is clear that the same has been tampered with and that access may have been gained to the contents of the container.” Ex.1010, p. 3, p. 4.

256. In fact, Beese already anticipates that its sticker 7 may “be extended as far as the bottom edge of the front part 33 of the lid part 3.” Ex.1009, [0030]. Modifying Beese would merely require extending Beese’s sticker 7 even further to attach both to the lid and to the base of the container in an area beyond the second planar area, which would provide security and tamper evidence. This very simple modification would have been within a POSITA’s skillset and would be apparent from the disclosure of King as it would require nothing more than creating Beese’s “sticker 7” using a larger piece of adhesively backed membrane.

257. As an example of the modification of Beese in view of King, as shown below, “sticker 7” (yellow) would attach to the front side surface and/or flat bottom surface (blue) of “clamping elevation 5.” Ex.1009, [0031]



Ex.1009 at Fig. 3. annotated

258. The combination of Beese and King would also address and improve a real-world situation. Specifically, imagine a shopper going into a grocery store to the produce aisle and grabbing an egg container off the shelf. The shopper grabs the egg container with four fingers around the base and lid and their thumb pressing against the front face of the base. A POSITA would recognize that even a small amount of pressure by the thumb on the front face of the base might cause Beese's retaining nose 24 in the base to pop out of openings 34 in the lid. This would cause the lid of the Beese's container to swing open unexpectedly. If this happens, the shopper might become startled and drop the container entirely or some of its contents. The shopper would also have to take the manual step to close the container before putting it into their shopping cart.

259. In the combination, Beese's openings 34 on the lid would interact with the retaining nose 24 on the base in order to lock the lid in a closed state to the base.

Ex.1009, [0027]. This would provide an initial locking mechanism. Beese's sticker 7 would be affixed to openings 34 and the front portion of retaining nose 24. Based on King, Beese's sticker 7 would also be extended so that it is long enough to attach to both lid part 3 and base part 2. The sticker would attach, for example, to the front side surface and/or flat bottom surface of the "clamping elevation 5" to provide security and tamper evidence. The modification would avoid the lid of the egg container swinging open thereby enhancing the shopping experience and reducing the possibility of product loss. It would also convey to the shopper that the eggs inside the container have not been tampered with, increasing the shopper's confidence in the product they are purchasing.

260. Egg cartons with a locking mechanism and a tamper evidence seal, like the one that would result from the combination of Beese and King, were common. For example, U.S. 2006/0060493 (Marshall; Ex.1022) describes an egg container that includes button tabs 52 on the base (tray 12) that fit into corresponding button holes 65 in the lid 14. Ex.1022, [0062], Figs. 12-14 (button tabs 52a, 52b, 52c fit into corresponding button holes 65). Marshall also includes a tamper proof seal that "prevents the lid from being opened with respect to the tray." Ex.1022, [0071]. Both the locking mechanism and the tamper proof seal are provided in the same container. *See, e.g.*, Ex.1022, [0074]. Similarly, U.S. 2,634,039 (Schwertfeger; Ex. 1023) involves an egg container where the lips 10 on the cover "enter the slots of the posts,

so that the cover members will be frictionally held firmly in closed position.” Ex.1023, 2:59-3:5. A label is then “applied to the closed cover members” to “seal the container.” Ex.1023, 3:5-8. Again, both the friction-based locking mechanism and a sealing label are provided in the same container.

261. A POSITA would have had a reasonable expectation of success in combining the teachings of Beese and King. The combination would require only one modification: extending Beese’s sticker 7 to attach both to the lid and to the base of the container. This is a very simple modification, one that is well known in the prior art. Ex.1022; Ex.1023. An extended sticker 7 can still be printed with relevant information during manufacturing. Ex.1009, [0011]. The sticker, however, need not be attached to the container during manufacturing; it could be attached once the container is filled with eggs. *See, e.g.*, Ex.1023 (label is applied to seal the container after eggs are inside). The sticker could also be attached to only the lid during manufacturing and then attached to the base (and retaining nose 24) by a simple adhesive once the container is filled with eggs. *See, e.g.*, Ex.1023 (same). A POSITA would have appreciated that extending Beese’s sticker 7 to attach to both the lid and base of the container would not unduly complicate or increase the manufacturing process. To the extent that attaching an extended sticker 7 adds even a minimal amount of time to the product packing process, this additional time would be justified by its benefits: more secure closing mechanism and tamper evidence.

262. The combination permits but does not require physical incorporation of elements from King into Beese.

4. Analysis

a) Claim 22

[22.0] The container of claim 19

263. Beese renders obvious *the container of claim 19*. See analysis of limitations [19.0]-[19.1] above.

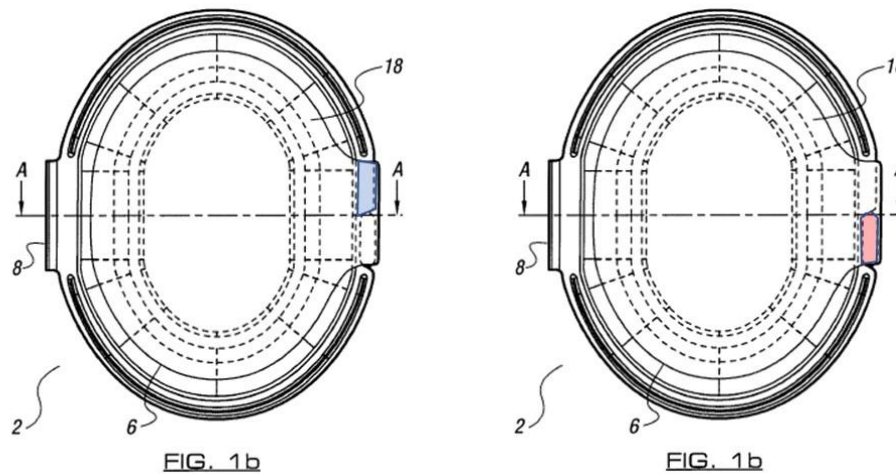
[22.1] wherein, the membrane layer creates a seal between the lid and the base of the container in the closed position by affixing to at least both, the at least one first surface portion and, at least one second surface portion.

264. This limitation would have been obvious to a POSITA based on the disclosure of Beese in combination with King.

265. As discussed in [1.12] and [1.13], in a closed state, the front, externally exposed surface of each retaining nose 24 (*second surface portion*) projects into each opening 34 in front part 33 (*first surface portion*) to form an at least substantially coplanar surface that creates a surface configuration that is satisfied with a portion of front part 33 and retaining nose 24, respectively. Beese's sticker 7, the *membrane layer*, is affixed to the surface configuration of the *first and second surface portions*.

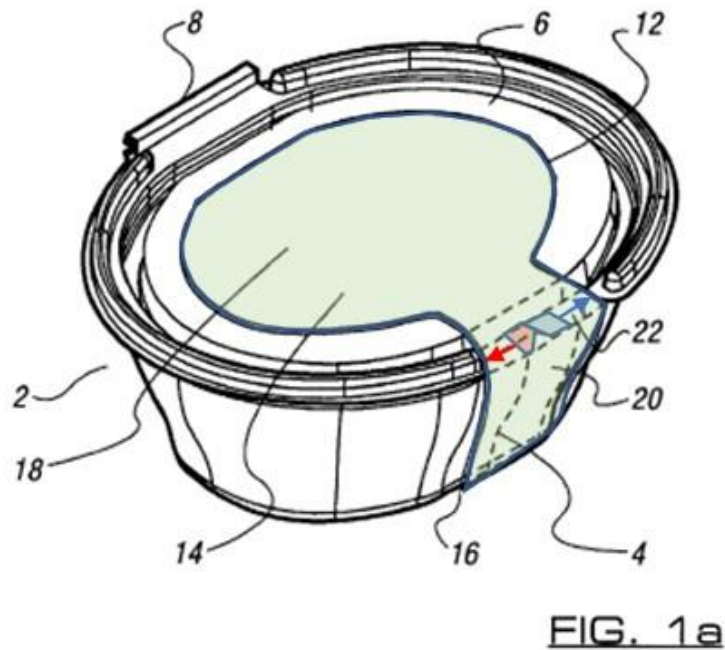
266. Beese does not, however, explicitly disclose sticker 7 creating a seal between the lid and the base. This is disclosed by King.

267. King's container has two tabs, one on the lid (blue; the *first surface portion*) and one on the base (red; the *second surface portion*). King discloses that a sheet material is positioned over at least one of the tabs to prevent removal of the lid from the base without altering the condition of the sheet material. Ex.1010, p. 2. The sheet material may be a label. Ex. 1010, p. 2. The label adheres to the body and lid. Ex.1010, p. 2. The label is attached by adhesive to the body and lid. Ex.1010, p. 2.



Ex.1010, Fig. 1b (annotated)

268. As shown in annotated Fig. 1a below, label 14 (including band 20) contacts the tab on the lid (blue; corresponding to the *first surface portion*) and the tab on the base (red; corresponding to the *second surface portion*). In Fig. 1a of King, the label is represented by reference character 14 and has “body portions 16 and 18 that are attached to the underside and top of the body and lid, respectively, typically by glue... [a] band 20 joins the body portions 16, 18.” Ex. 1010, p. 4.



Ex.1010 at Fig. 1a, annotated

269. King explains that it is desirable to provide tamper evidence: “if the label is torn then it is clear that the same has been tampered with and that access may have been gained to the contents of the container.” Ex.1010, p. 3. A POSITA would have thus understood that King’s label creates a seal between the lid and the base of the container.

270. A POSITA would have found it obvious to modify band 20 of label 14 such that the portion that is in contact with the surface configuration in gap 22 would adhere by way of, for example, an adhesive. Motivation to make this modification

flows from the objective in King to provide a container having a lid and base and an effective way to have a tamper evidence characteristic. Ex.1010, p. 1.

271. At pages 2-3, King explains that an effective tamper evident means is a label that has been adhered to the lid and container via an adhesive label. To further improve the tamper evident capabilities, a POSITA would have been motivated to also adhere the label by an adhesive at one or both tabs of the surface configuration at gap 22 with a reasonable expectation of success that the lid will be secured and not capable of being opened without tearing the label, which meets the objective of King to use the label as a signal that the container “has been tampered with and that access may have been gained to the contents of the container.” Ex. 1010, p. 3.

272. The result of this configuration is to provide a container having a lid and a base which provides an effective way of allowing the same to have a tamper evident characteristic but without the need for a line of weakening or frangible line to be provided. Ex.1010, pp. 1-2.

273. A POSITA would have thus understood that King’s label creates a seal between the lid and the base of the container. In the combination, Beese’s sticker 7 would be affixed to front part 33 and the front, externally exposed surface of retaining nose 24. In combination with King, Beese’s sticker 7 would also be extended so that it is long enough to attach to both lid part 3 and base part 2. As explained above, “sticker 7” would, for example, attach to the front side surface

and/or flat bottom surface of the “clamping elevation 5.” Ex.1009, [0031]. This modification is entirely consistent with what is envisioned in paragraph [0030] of Beese wherein the sticker 7 “may be of any desired size” and can be of a “considerably larger configuration.” Ex.1009, [0030].

274. Thus, *wherein, in the closed position, the membrane layer creates a seal between the lid and the base of the container in the closed position by affixing to at least both, the at least one first surface portion and, at least one second surface portion* would have been obvious to a POSITA based on the disclosure of Beese in combination with King.

b) Claim 23

[23.0] The container of claim 22

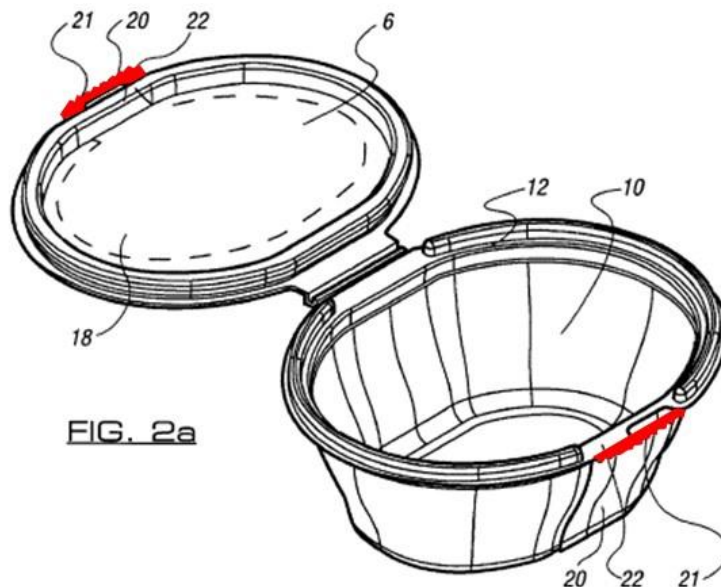
275. Beese in view of King renders obvious *the container of claim 22*. See analysis of limitations [22.0]-[22.1].

[23.1] wherein, when the lid is moved from the closed position to the open position, the seal is ruptured and, at least a portion of the membrane layer remains affixed to the lid.

276. This limitation would have been obvious to a POSITA based on the disclosure of Beese in combination with King.

277. Beese does not explicitly disclose sticker 7 creating a seal between the lid and the base and therefore does not address what happens to the sticker when the seal is broken. This is disclosed by King.

278. King discloses that “in order to remove the lid from the base it is necessary for the label to be torn.” Ex. 1010, p. 3. This is illustrated in Fig. 2a where the container is shown in the open position and the torn section of the label 21 (red) is shown while the label remains adhered to the lid and the base. This is because the label is attached to the container “by glue” and is only “torn at the preferred location.” Ex.1010, p. 4, p. 6. A POSITA would have understood that tearing the label in a preferred location would not impact the remaining portions of the label that are glued to the container.



Ex.1010 at Fig. 2a, annotated

279. In the combination, Beese’s sticker 7 (i.e., a membrane layer) would be affixed to front part 33 (i.e., the first surface portion) and the front, externally

exposed surface of retaining nose 24 (i.e., the second surface portion). Beese's sticker 7 would also be extended so that it is long enough to attach to both lid part 3 and base part 2, per King. This modification is entirely consistent with what is envisioned in [0030] of Beese wherein the sticker 7 "may be of any desired size" and can be of a "considerably larger configuration." Ex.1009, [0030]. As explained above, "sticker 7" would, for example, attach to the front side surface and/or flat bottom surface of the "clamping elevation 5." Ex.1009, [0031].

280. In the combination, when the resulting container is opened, sticker 7 would rupture, with portions of sticker 7 still adhered (i.e, *remains affixed*) to the lid and base of the container, which is taught by King.

281. Thus, *wherein, when the lid is moved from the closed position to the open position, the seal is ruptured and, at least a portion of the membrane layer remains affixed to the lid* would have been obvious to a POSITA based on the disclosure of Beese in combination with King.

X. AVAILABILITY FOR CROSS-EXAMINATION

282. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross examination in the case and that cross examination will take place within the United States. If cross examination is required of me, I will appear for cross examination within the United States during the time allotted for cross examination.

XI. CONCLUSION

283. I hereby declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, and that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true. I understand that willful false statements are punishable by fine or imprisonment or both. *See* 18 U.S.C. § 1001.

Date: June 20, 2024

Respectfully submitted,



Thomas Dunn, BA MFS