UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DUKE MANUFACTURING CO.
Petitioner

v.

MARMON FOODSERVICE TECHNOLOGIES, INC.
Patent Owner

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Case: IPR2026-00406
Patent No. 10,852,002

**PETITION FOR INTER PARTES REVIEW**
**OF U.S. PATENT NO. 10,852,002**

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## EXHIBIT LIST

| Exhibit No. | Description |
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| 1001 | U.S. Patent No. 10,852,002 (“the ’002 Patent”) |
| 1002 | Prosecution History of the ’002 Patent |
| 1003 | Declaration of Glenn Vallee |
| 1004 | *Curriculum Vitae* of Glenn Vallee |
| 1005 | Infrared Heatsink Holding Unit Operators Manual (“IRHS Manual”) |
| 1006 | Infra Red Heat Sink Specifications (“IRHS Specifications”) |
| 1007 | bk.dukemfg.com (“Duke Website”) |
| 1008 | Infrared Heatsink Holding Unit Service Manual (“IRHS Service Manual”) |
| 1009 | Prince Castle Holding Bins (“Prince Castle”) |
| 1010 | U.S. Patent Publication No. 2010/0288748 (“Fortmann’748”) |
| 1011 | U.S. Patent Publication No. 2016/0073821 (“Shei’821”) |
| 1012 | U.S. Patent Publication No. 2007/0108178 (“Jones”) |
| 1013 | U.S. Patent Publication No. 2009/0126580 (“Hartfelder”) |
| 1014 | U.S. Patent No. 10,258,197 (“Fortmann’197”) |
| 1015 | U.S. Patent Publication No. 2008/0302778 |
| 1016 | U.S. Patent Publication No. 2004/0069155 (“Shei’155”) |
| 1017 | U.S. Patent No. 6,175,099 (“Shei’099”) |
| 1018 | U.S. Patent No. 5,852,967 (“Fortmann’967”) |

| Exhibit No. | Description |
|---|---|
| 1019 | U.S. Patent No. 6,658,994 (“McMillan”) |
| 1020 | U.S. Patent Publication No. 2011/0114618 |
| 1021 | U.S. Patent Publication No. 2011/0114624 |
| 1022 | U.S. Patent Publication No. 2011/0252813 (“Veltrop”) |
| 1023 | U.S. Provisional Patent Application No. 62/193,992 (“the ’992 Provisional”) |
| 1024 | U.S. Patent No. 6,119,587 |
| 1025 | U.S. Patent No. 3,461,275 (“Poole”) |
| 1026 | U.S. Patent No. 7,258,064 (“Vaseloff”) |
| 1027 | U.S. Patent Publication No. 2014/0130684 (“Reese”) |
| 1028 | Merco Holding Cabinets |
| 1029 | U.S. Patent No. 6,011,243 |
| 1030 | Declaration of Kathryn Veder |
| 1031 | E-mail Collection (Trade Show Related) |
| 1032 | E-mail Collection (IRHS Manual Related) |
| 1033 | E-mail Collection (IRHS Specifications Related) |
| 1034 | E-mail Collection (IRHS Service Manual Related) |
| 1035 | Flame Magazine |
| 1036 | Declaration of Natasha Zerbey |
| 1037 | Declaration of Arthur Lemley |

| Exhibit No. | Description |
|---|---|
| 1038 | Declaration of Sheldon Coach |
| 1039 | IRHS Sales Spreadsheet |
| 1040 | Proposed Protective Order - Clean |
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***Emphasis added throughout unless indicated otherwise.***

***Figures annotated throughout unless indicated otherwise.***

# I. INTRODUCTION

U.S. Patent No. 10,852,002 (the ’002 Patent) pertains to multi-zone heated food-holding bins (10) for fast-food restaurants. EX1001: Abstract, 1:64-65; EX1003: ¶¶32-34.

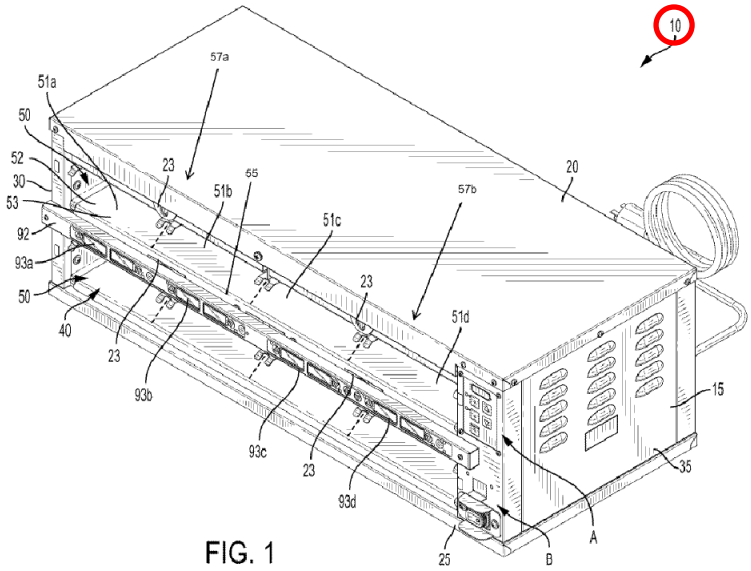



FIG. 1

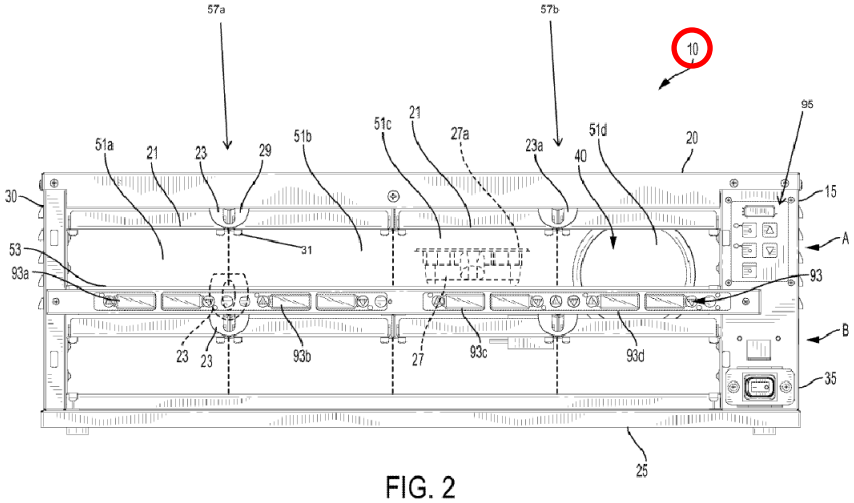



FIG. 2

EX1001: Figs. 1, 2.

The ‘002 Patent mixes and matches well known features from the art (2x4 bay configuration, independent temperature control, heating element arrangement,

control locations, lids, lid shelves, and lid latches) according to established functions to yield predictable results. EX1003: ¶¶35-36.

Duke Manufacturing Co. ("Duke") respectfully requests *inter partes* review of claims 1-29. Two sets of grounds are presented: a first based on related non-patent literature; and a second demonstrating the '002 Patent cobbles together well-known warming cabinet features, like adding common automobile options (heated seats, etc.) to a base automobile.

## II. CHALLENGE IDENTIFICATION

### A. Prior Art Identification

The '002 Patent's priority date is April 20, 2016.

These references are prior art under §102(a)(1):

- Fortmann'748
- Jones
- Fortmann'967
- Hartfelder
- Veltrop
- Shei'821
- Shei'155
- Poole
- McMillan
- Shei'099
- Vaseloff
- Reese
- IRHS Manual

- IRHS Specifications
- Duke Website
- IRHS Service Manual
- Prince Castle

The IRHS Manual, IRHS Specifications, Duke Website, and IRHS Service Manual (collectively "IRHS Documents", each an "IRHS Document") are printed publications as publicly accessible to the interested public prior to April 20, 2016. *GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690, 693-95 (Fed. Cir. 2018) (focusing on interested (not general) public). IRHS products were marketed and commercially successful, which drove attention to associated printed publications. EX1030: ¶¶19-36; EX1031. IRHS Manual was publicly disseminated (shipped with 360+ units to customers from February 18, 2014 to September 3, 2014). EX1030: ¶¶33, 37-39; EX1032; EX1036; EX1037; EX1038; EX1039; *Weber, Inc. v. Provisur Technologies, Inc.*, 92 F.4th 1059, 1067-69 (Fed. Cir. 2024) (finding operating manuals publicly accessible). IRHS Specifications was publicly disseminated (available for trade shows, emailed to 20+ organizations (customers, manufacturer's representatives)). EX1030: ¶¶44-44; EX1033. Duke Website was publicly accessible and advertised (industry publications, tradeshow). EX1030: ¶¶27-29; EX1007: 1-2; EX1035: 5; EX1003: ¶56; *Roku v. Universal Electronics*, No. 2024-1188, 2025 WL 1692663, *1-*3 (Fed. Cir. 2025). IRHS Service Manual

was available from Duke and emailed to 6+ organizations (service providers, Whataburger, Burger King franchisee). EX1030: ¶¶34, 45-48; EX1034.




For the past 12 years, Duke has a proven record in approximately 80% of all BURGER KING® restaurants worldwide. Now we introduce our best effort yet – our new **InfraRed HeatSink™** holding unit, designed to provide you with hot quality food **all day long.** The IRHS gives restaurant owners the flexibility to hold prepared food items at the ideal flavor, texture, and temperature, ready and waiting to serve customers quickly. Experience the Duke difference...

**DUKE INFRARED HEATSINK™ (IRHS):**

Duke heavyweight construction, **built to last**
Dual heat technology: Top - **sealed solid state InfraRed**; Bottom - **HeatSink™**
No hot air and **no moving parts, no fans**
Fully sealed, **easily cleaned** top compartments
Unlimited IR settings for **complete product recipe flexibility**
**Fully independent pans** for flexible product location
Smooth corners **easy to clean**
Robust Duke timer bar **for long life**; full **Kitchen Minder® compatibility available**
Thick, durable HeatSink™ **aluminum pan cover** for broiled products
Power management & idle mode for **energy conservation**

EX1035: 5.

Prince Castle is a printed publication as a publicly accessible website maintained by Patent Owner prior to April 20, 2016. EX1030: ¶¶15-17; EX1009: 1-2; EX1003: ¶111.

Fortmann'197 is prior art under §102(a)(2) as effectively filed as of filing of the '992 Provisional, before the '002 Patent. The "ministerial requirements" of §120 were met and the provisional "'describe[d] the subject matter' relied upon." *Penumbra, Inc. v. Rapidpulse Inc.*, IPR2021-01466, Paper 34 at 32 (P.T.A.B. Mar. 10, 2023) (precedential). Fortmann'197 meets the "ministerial requirements" by claiming benefit of (EX1014: 1:6-8), being co-pending with (EX1014: (22)), and sharing common inventors with the '992 Provisional (EX1014: (72); EX1023: 1). The '992 Provisional describes the subject matter in Fortmann'197 forming this Petition's grounds because Fortmann'197's and the '992 Provisional's specifications and figures are essentially identical (compare EX1014: 1:13-10:9 with EX1023: ¶¶[0001]-[0055], and compare EX1014: Figs. 1-10 with EX1023: Figs. 1-10); EX1003: ¶¶1024-1028.

The references pertain to food holding and heating and are in the same field of endeavor with each other and the '002 Patent. EX1001: 1:64-2:24; EX1005: 1; EX1006: 1; EX1007: 8, 21-22, 26; EX1008: 1; EX1009: 7, 19, 36; EX1010: ¶[0002]; EX1011: ¶[0002]; EX1012: ¶[0003]; EX1013: ¶[0002]; EX1014: 1:13-21;

EX1016: ¶[0002]; EX1017: 1:13-15; EX1018: 1:5-7; EX1019: 1:9-14; EX1022: ¶[0010]; EX1025: 1:25-26; EX1026: 1:5-7; EX1027: ¶[0001]; EX1003: ¶¶37-40.

### B. Statutory Grounds for Challenge

Basis for all grounds is §103.

| Ground | References | Claims Challenged |
|---|---|---|
| 1 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual | 1, 3-15, 17-19, 21, 23, 25-27 |
| 2 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Hartfelder, Shei'099 | 2, 16, 20, 24, 28, 29 |
| 3 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Veltrop, Poole | 6, 17, 25 |
| 4 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Fortmann'967, Fortmann'197 | 22 |
| 5 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Hartfelder, Shei'099, Prince Castle, Reese | 14-20, 29 |
| 6 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Hartfelder, Shei'099, Veltrop, Poole, Fortmann'967, Fortmann'197, Prince Castle, Reese, Shei'155 | 1-29 |

| | | |
|---|---|---|
| 7 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Hartfelder, Shei'099, Veltrop, Poole, Fortmann'967, Fortmann'197, Prince Castle, Reese, Shei'155 | 1-29 |
| 8 | IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Hartfelder, Veltrop, Shei'155, Vaseloff, McMillan | 3 |
| 9 | Fortmann'748, IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099 | 1-5, 7-10, 12, 13, 21-24, 26-28 |
| 10 | Fortmann'748, IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099, Veltrop, Shei'155 | 6, 11, 25 |
| 11 | Fortmann'748, IRHS Manual, IRHS Specifications, Duke Website, IRHS Service Manual, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099, Prince Castle | 14-16, 18-20, 29 |
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### C. Level of Ordinary Skill

The person having ordinary skill in the art ("POSA") would have an engineering degree and/or 4 years' experience in design and/or manufacture of food service equipment. The POSA would be familiar with existing food service equipment in 2016—including food holding cabinets—and would know how to modify food service equipment based on various design criteria. EX1003: ¶¶1-30.

## III. CLAIM CONSTRUCTION

Duke applies plain and ordinary meaning and reserves the right to address Patent Owner claim construction(s). 37 C.F.R. §42.100(b).

## IV. GROUND 1: Claims 1, 3-15, 17-19, 21, 23, and 25-27 Would Have Been Obvious Over the IRHS Documents

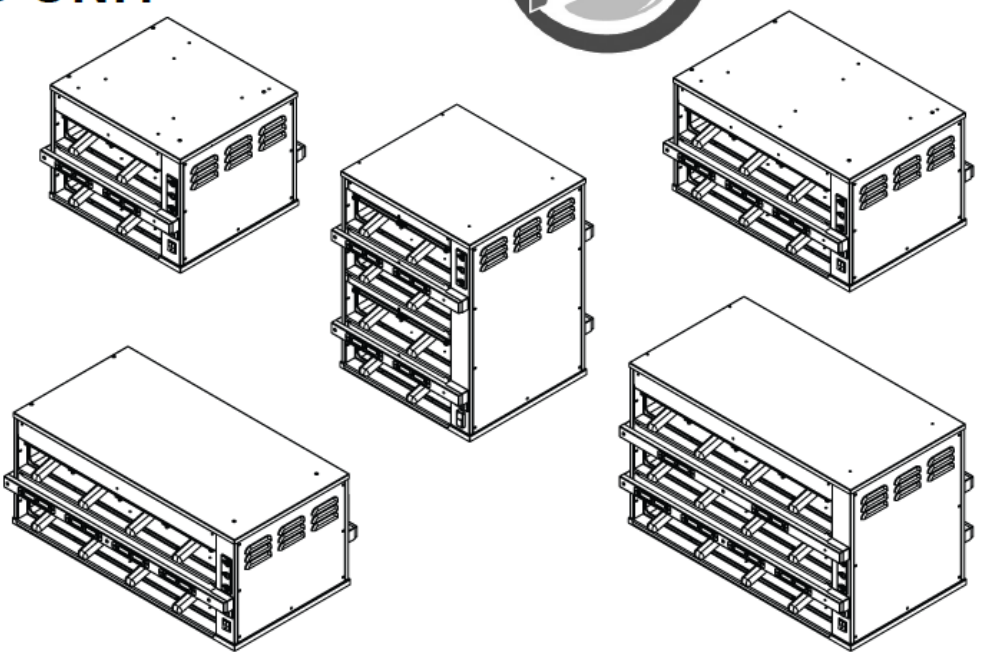
### A. Combination of IRHS Documents

The IRHS Documents describe the same Duke products: Infrared Heatsink Holding Units ("IRHS"). EX1003: ¶¶117-118.

Your Solutions Partner

# OPERATORS MANUAL

# INFRARED HEATSINK ™ HOLDING UNIT



***MODELS***

***IRHS22***
***IRHS23***
***IRHS24***
***IRHS34***
***IRHS42***

**IMPORTANT INFORMATION, READ BEFORE USE.**
**PLEASE SAVE THESE INSTRUCTIONS.**

*This manual is Copyright © 2014 Duke Manufacturing Company. All rights reserved. Reproduction without written permission is prohibited. Duke is a registered trademark of the Duke Manufacturing Company.*

**Duke Manufacturing Company**

**2305 N. Broadway**
**St. Louis, MO 63102**
**Phone: 314-231-1130**
**Toll Free: 1-800-735-3853**
**Fax: 314-231-5074**
**www.dukemfg.com**

**P/N 229945D**
**02/18/14**

EX1005: 1.

Your Solutions Partner

# Specifications

F.O.B Sedalia, Missouri 65302



IRHS - 23

**OPTIONS:**

- ☐ Metal trivet for fried/dry product
- ☐ Kitchen Minder master unit
- ☐ Kitchen Minder slave unit
- ☐ Single side control

**AGENCY LISTING:**


**DUKE MANUFACTURING CO.**
**2305 N. Broadway**
**St. Louis, MO 63102**

**800.735.3853 Toll Free**
**314.231.5074 Fax**
**www.dukemfg.com**


**Approval Stamp(s):**



**PRODUCT INFORMATION:**

PROJECT: _____
ITEM: _____
QUANTITY: _____

MODEL:

**Product Holding Unit - Infra Red Heat Sink**

| | |
|---|---|
| IRHS-22 | 2 down, 2 across |
| IRHS-23 | 2 down, 3 across |
| IRHS-24 | 2 down, 4 across |
| IRHS-34 | 3 down, 4 across |

**BODY:**

- Stainless steel exterior
- Annodized aluminum HeatSink™ with fully radiused curved corners that are easily cleaned
- Only removable part for cleaining is aluminum cover for broiled product
- Modular and scaleable design

**HEATING:**

- Dual technology heating to reduce temperature variance from top to bottom
- Individually controlled IR emitters pulse on and off for controlling optimum amount of energy being applied to the food
- Zoned bottom heat to provide additional holding environment customization
- IR Turbo Boost for instant shot of IR energy

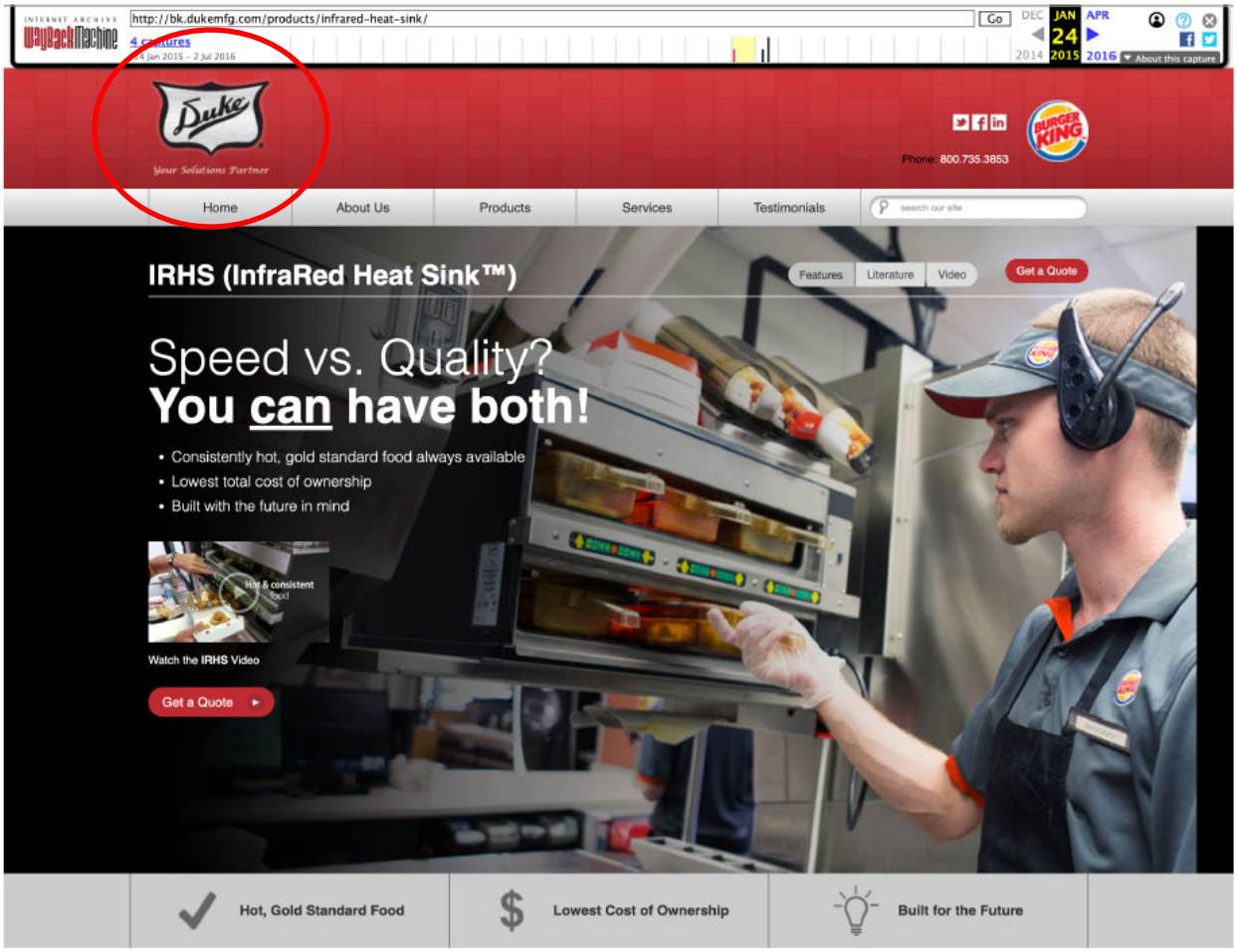
**CONTROLS**

- Automatic pan linking to ensure FIFO
- Custom heat settings for food product
- Each compartment individually controlled
- Alphanumeric displays to indicate product description, temp and hold time remaining
- Web based programming via USB
- Day part switch for global recipe changes (B, L, D)
- Firmwave updates via USB

SHORT FORM SPECIFICATIONS:

**Duke Product Holding Units** - Upper IR emitters provide optimum environment for holding of all fried foods resulting in extended hold time, moist protein and crispy breading. Bottom zoned heat element provides gentle heat to minimize temperature distribution from top to bottom of pan. Alphanumeric control with independent well flexibility. Programmable via website & USB with daypart switch to facilitate global recipe changes.

EX1006: 1.


http://bk.dukemfg.com/products/infrared-heat-sink/
Duke
Your Solutions Partner
Phone: 800.735.3853
Home
About Us
Products
Services
Testimonials
IRHS (InfraRed Heat Sink™)
Features
Literature
Video
Get a Quote
Speed vs. Quality?
You can have both!
• Consistently hot, gold standard food always available
• Lowest total cost of ownership
• Built with the future in mind
Watch the IRHS Video
Get a Quote
Hot, Gold Standard Food
Lowest Cost of Ownership
Built for the Future

EX1007: 8.

# IRHS InfaRed HeatSink® Product Holding Units

- Consistently hot, gold standard food is always available
- Lowest cost of ownership solution
- Built with the future in mind




1. Metal HeatSink cover to eliminate plastic lids. Cover only required for broiled foods.
2. No more plastic faceplates! Stainless steel faceplate protects internal components.
3. Rolled edges and completley sealed construction prevent grease seepage to internal components.
4. Ensure quick and accurate fixes with more advanced diagnostics and a more robust Duke timer bar.

By combining the technologies of InfraRed and HeatSink, we are able to hold food with superior flavor and temperature consistency. Previous generations of the Duke holding units contained only HeatSink, heating from below and wrapping around the sides of each pan. By adding the top-down InfraRed heat, we have been able to deliver a consistently hot pan of product, from top to bottom. This also allows unlimited menu flexibility as each food product has tailored settings to control the thermal path of the food, leading to optimal quality, consistency and extended hold.

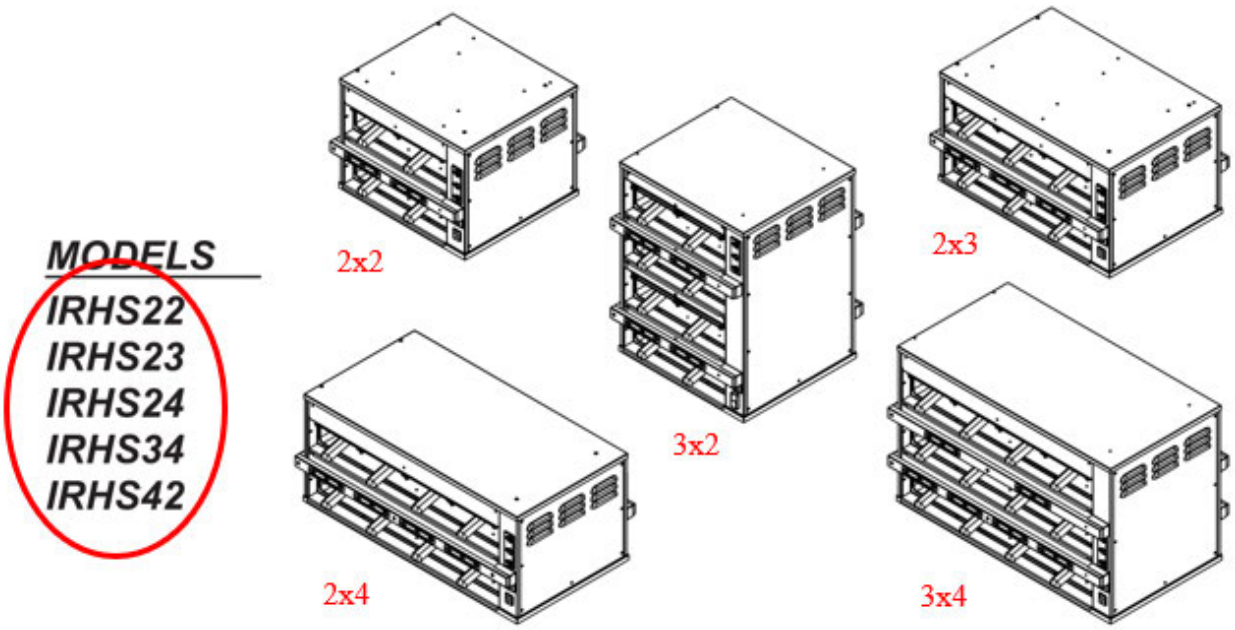


EX1007: 51.




EX1008: 1.

The IRHS Documents use the same model numbers (e.g., IRHS24), with the numerical suffixes indicating bay configurations. EX1005: 1, 6-10; EX1006: 1-2; EX1007: 54-57; EX1008: 1, 5-9; EX1003: ¶119. For example, IRHS**24** has eight bays in a 2x4 grid. EX1005: 6-10; EX1006: 1; EX1007: 54-57; EX1008: 1. EX1003: ¶120.




EX1005: 1.

MODEL:

**Product Holding Unit - Infra Red Heat Sink**

| | |
|---|---|
| **IRHS-22** | 2 down, 2 across |
| **IRHS-23** | 2 down, 3 across |
| **IRHS-24** | 2 down, 4 across |
| **IRHS-34** | 3 down, 4 across |
| **IRHS-42** | 4 down, 2 across |

EX1006: 1.

| Part #'s | Controls | Stand-Alone/ Master/Satellite | Electrical Requirements | | | |
|---|---|---|---|---|---|---|
| | | | Voltage | Hz | Amps | NEMA |
| IRHS24-**XXX**4T1 | Single | Stand-Alone | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |
| IRHS24-**XXX**4T2R | Double | Stand-Alone | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |
| IRHS24-**XXX**4T1S | Single | Satellite | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |
| IRHS24-**XXX**4T1M | Single | Master | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |
| IRHS24-**XXX**4T2S | Double | Satellite | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |
| IRHS24-**XXX**4T2M | Double | Master | 208 / 230 / 240 | 50/60 | 12 | 6-15P (208V/240V) |

**Notes**
1. Replace "XXX" in the part # with the respective power supply
2. 230V Unit Electrical Requirements: IEC 60309 PIN & SLEEVE PLUG, 16 AMP

**WARRANTY:**
3 year parts and 1 year labor for timer bar IRHS
3 year parts and 2 year labor for VISORenabled IRHS – no timer bar unit

EX1007: 56.

The POSA understands the IRHS Documents describe the same Duke IRHS products. EX1005: 6-10; EX1006: 1-2; EX1007: 55-57; EX1008: 1, 5-9; EX1003: ¶122. Duke produced all the IRHS Documents, which include Duke trademarks. EX1005: 1; EX1006: 1; EX1007: 26, 54, 57; EX1008: 1; EX1003: ¶121. The IRHS Documents describe the same IRHS product lines, using similar images, specifications, and descriptions (model numbers, name ("InfraRed HeatSink"), etc.). EX1005: 6-10; EX1006: 1-2; EX1007: 55-57; EX1008: 5-9; EX1003: ¶122.

It would have been obvious to combine the IRHS Documents teachings because they describe the same IRHS products. EX1003: ¶¶123-125; *Haliburton Energy Servs., Inc. v. Dynamic 3D Geosolutions LLC*, No. IPR2014-01186, Paper 13 at 19-20 (P.T.A.B. Jan. 12, 2015). The POSA would combine the IRHS Documents' teachings to form IRHS products having all features described by the IRHS Documents, meeting customer demands, increasing diverse food holding capacity, and providing customized/improved food holding environments. EX1007: 17; EX1019: 1:35-49; EX1003: ¶125.

The POSA would have viewed the IRHS Documents together as describing features of Duke's IRHS. EX1003: ¶126. The POSA would have applied or supplemented any feature of the IRHS products taught by one IRHS Document into IRHS products taught by other IRHS Documents. EX1003: ¶126. If an IRHS

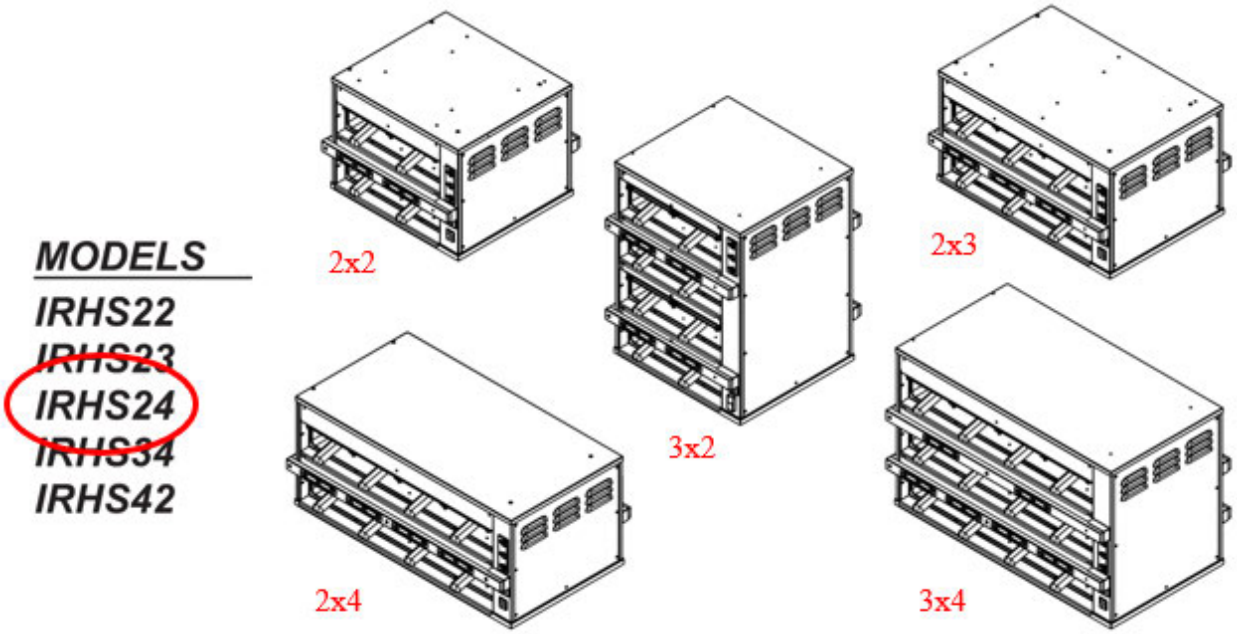
feature was not clearly described in one IRHS Document, the POSA would look to other IRHS Documents. EX1003: ¶126.

There would have been reasonable expectation of success because the IRHS Documents describe the same/related products. EX1003: ¶127.

### B. Independent Claim 1/Claim 13

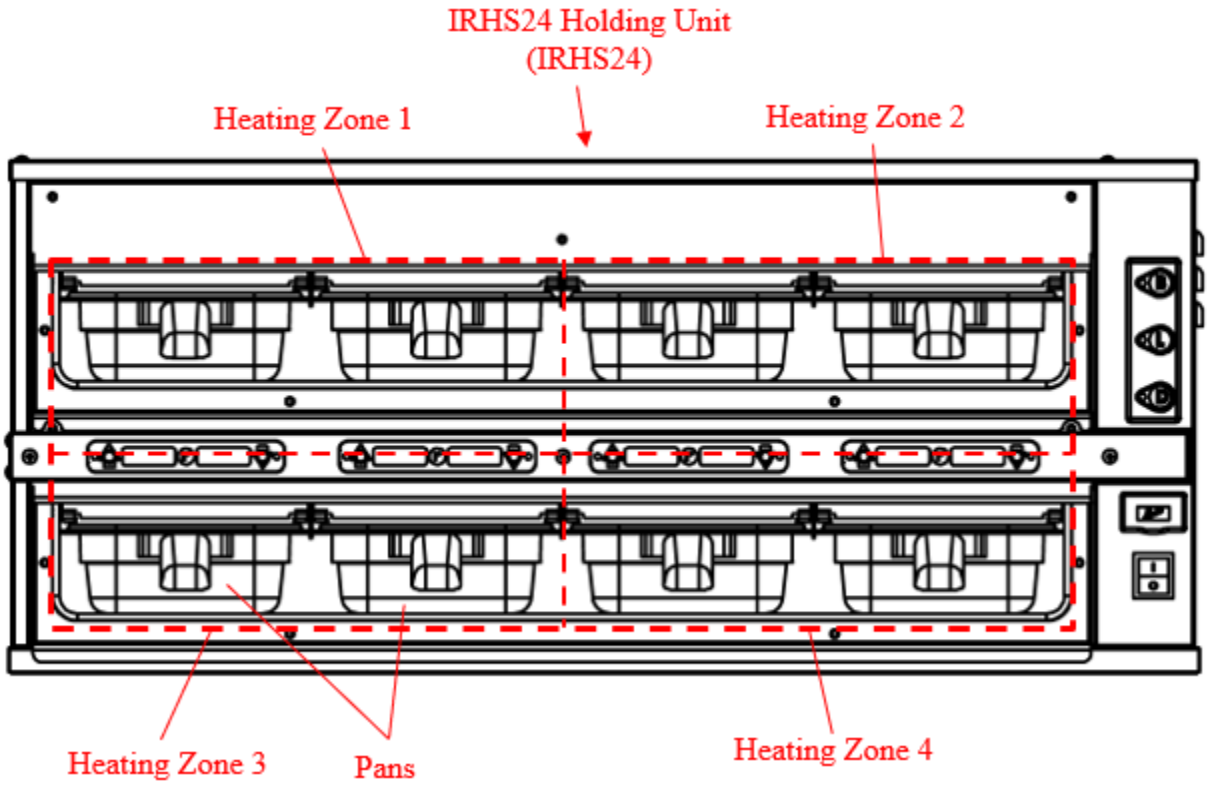
#### 1.P

The IRHS Documents disclose a 2x4 IRHS (the "IRHS24")[1] having multiple zones for heating food pans. EX1005: 4, 8; EX1006: 1; EX1007: 51, 56; EX1008: 1; EX1003: ¶128.

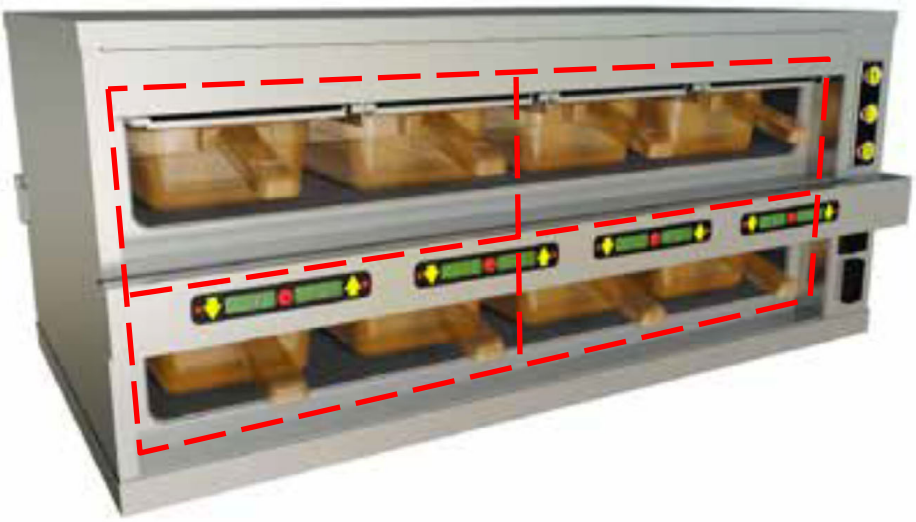



EX1005: 1.

[1] "IRHS" and "IRHS24" refer to the IRHS Documents' disclosure not a commercial IRHS product itself.



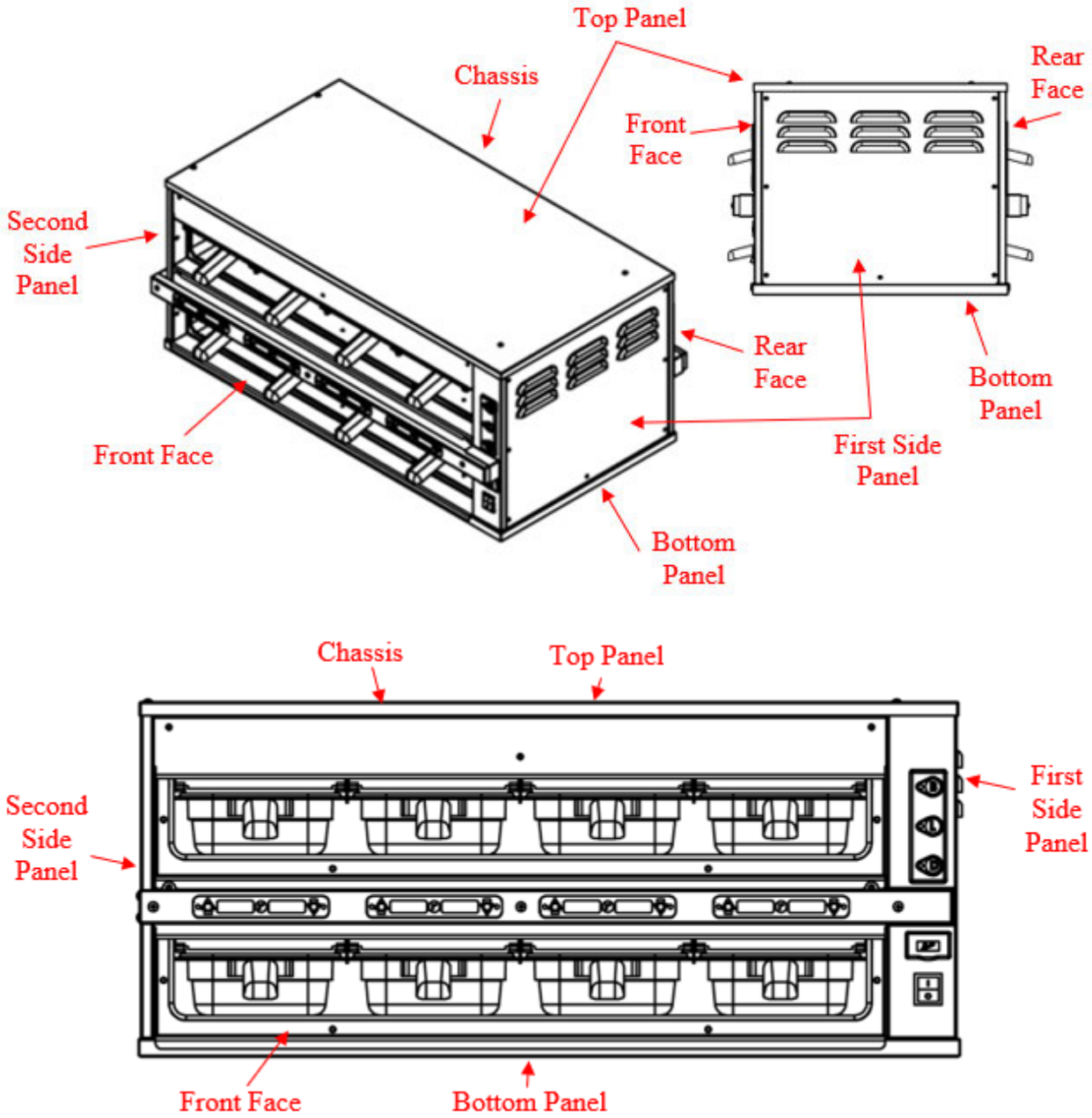

EX1005: 8.

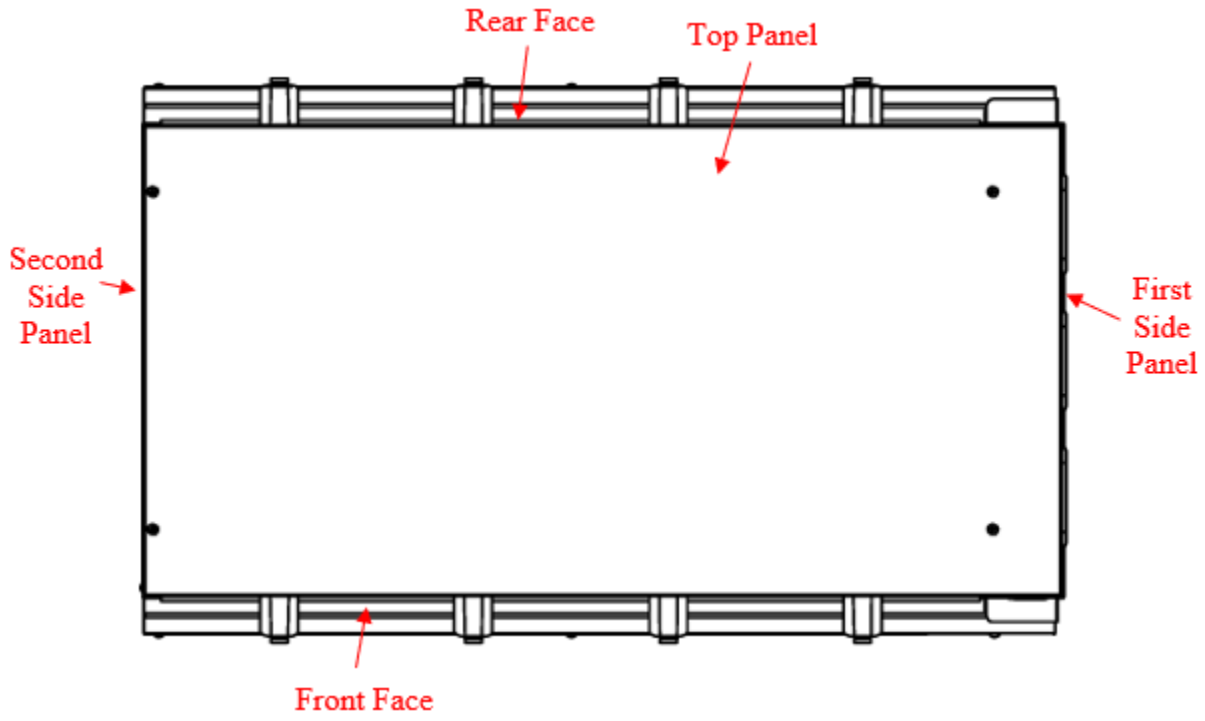


EX1007: 56.

**1.a**

IRHS24 includes a chassis having top and bottom panels, first and second side panels, and opposite front and rear faces. EX1006: 1; EX1007: 51; EX1003: ¶129.

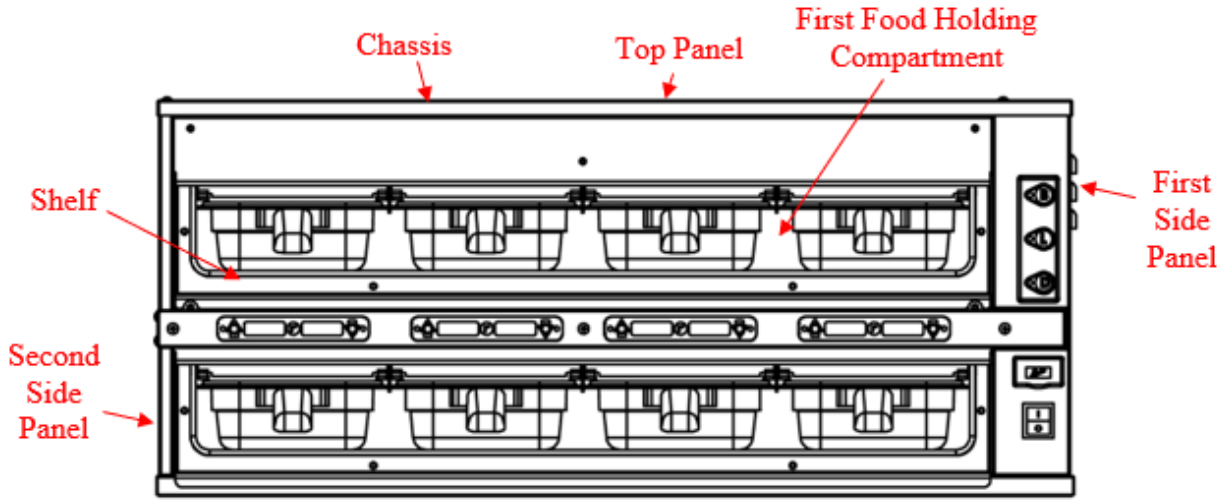





EX1005: 8.

**1.b.1**

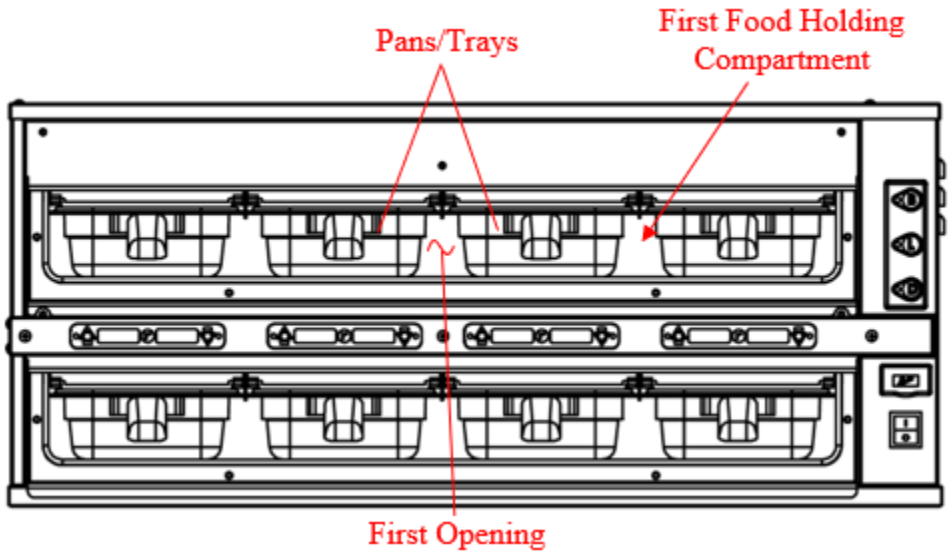
The first and second side panels, top panel, and shelf define an upper/first food holding compartment within the chassis. EX1003: ¶130.




EX1005: 8.

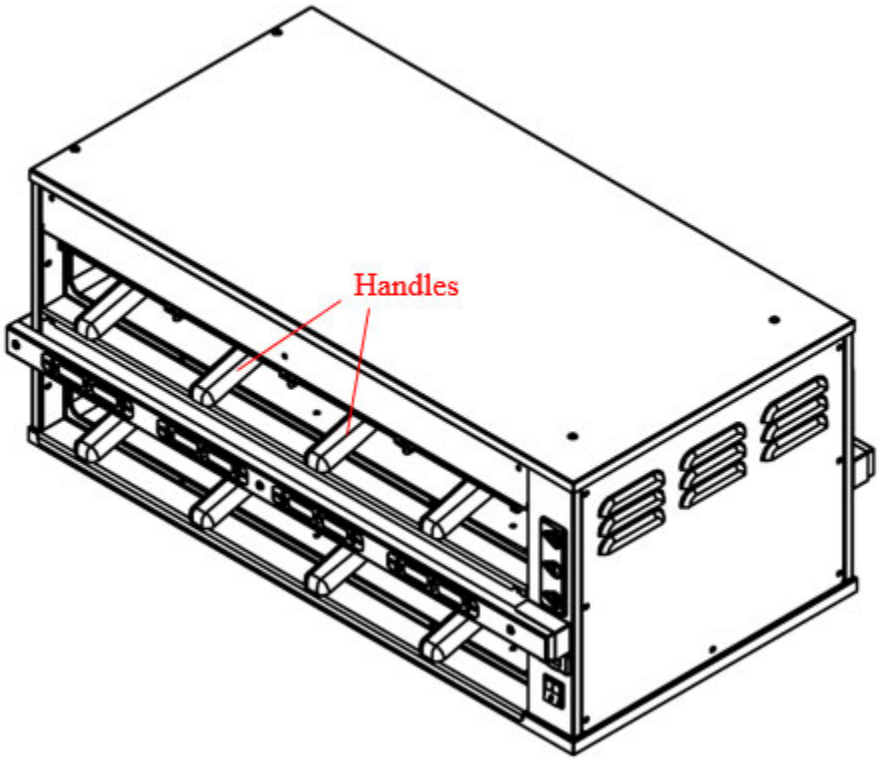
**1.b.2**

The first compartment has a first opening configured to allow pans of food to be placed into and removed from the compartment. EX1003: ¶131.




EX1005: 8.

Pan handles protrude from the first opening for pan insertion and removal through the opening. EX1007: 52; EX1003: ¶131.




EX1005: 8.



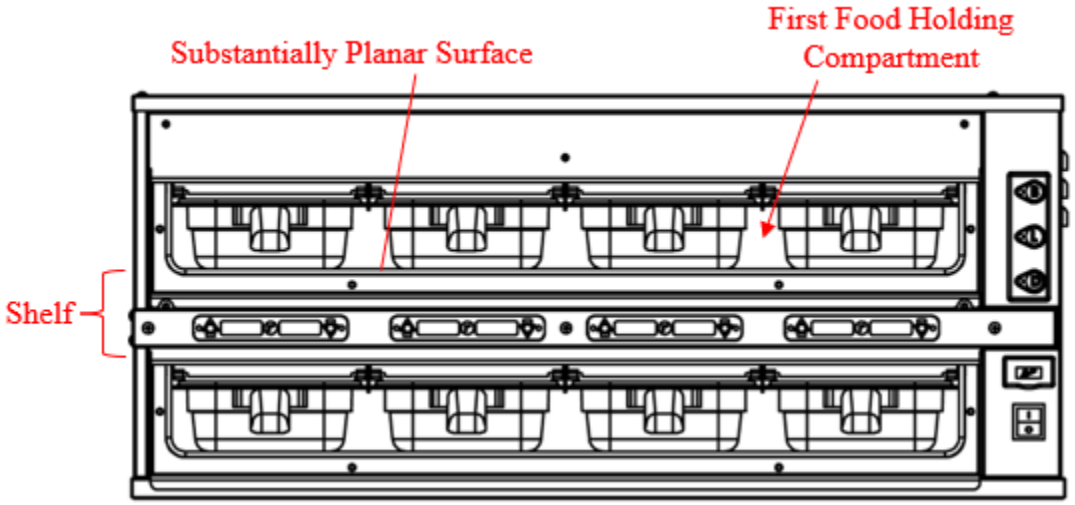

EX1007: 58.




EX1007: 52.

**1.c.1**

The shelf includes a substantially planar surface forming its top surface and the compartment's bottom surface. EX1003: ¶132.

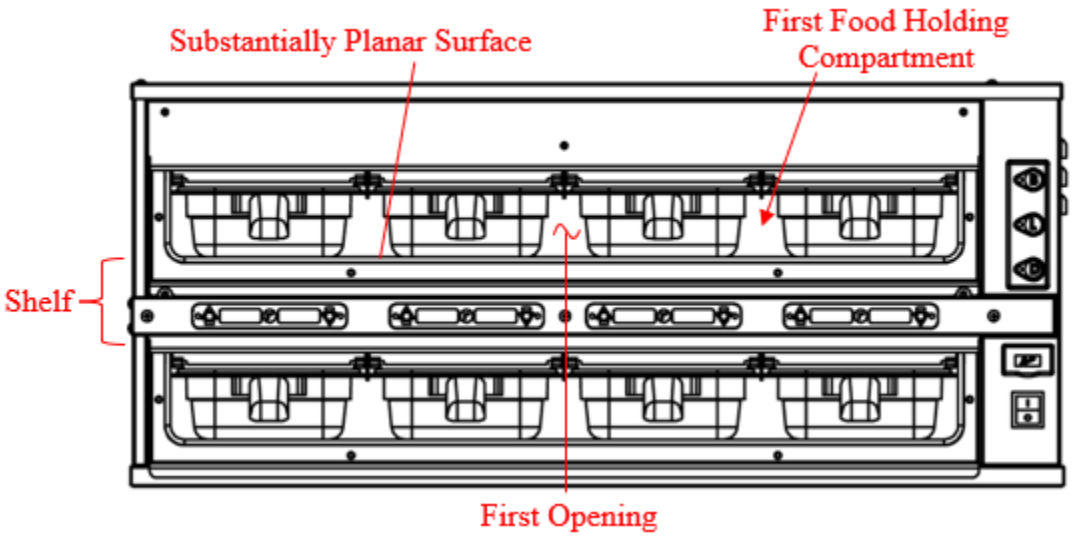



EX1005: 8.

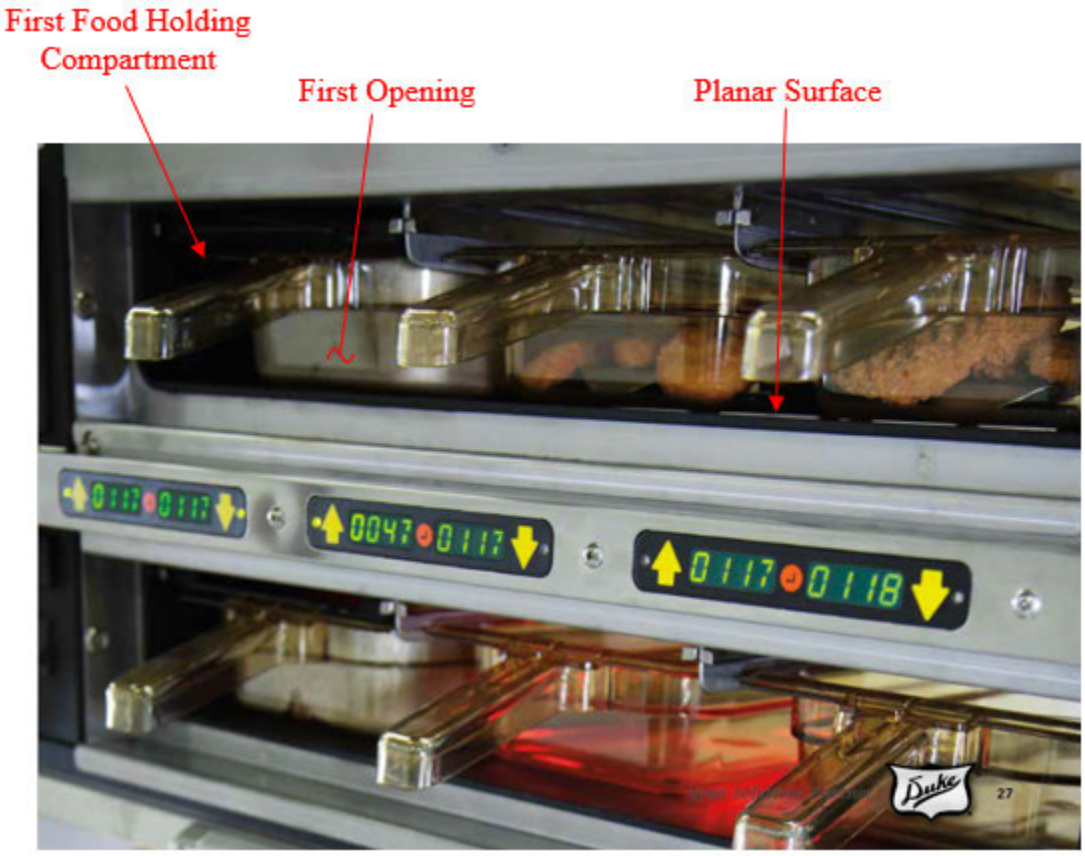
**1.c.2**

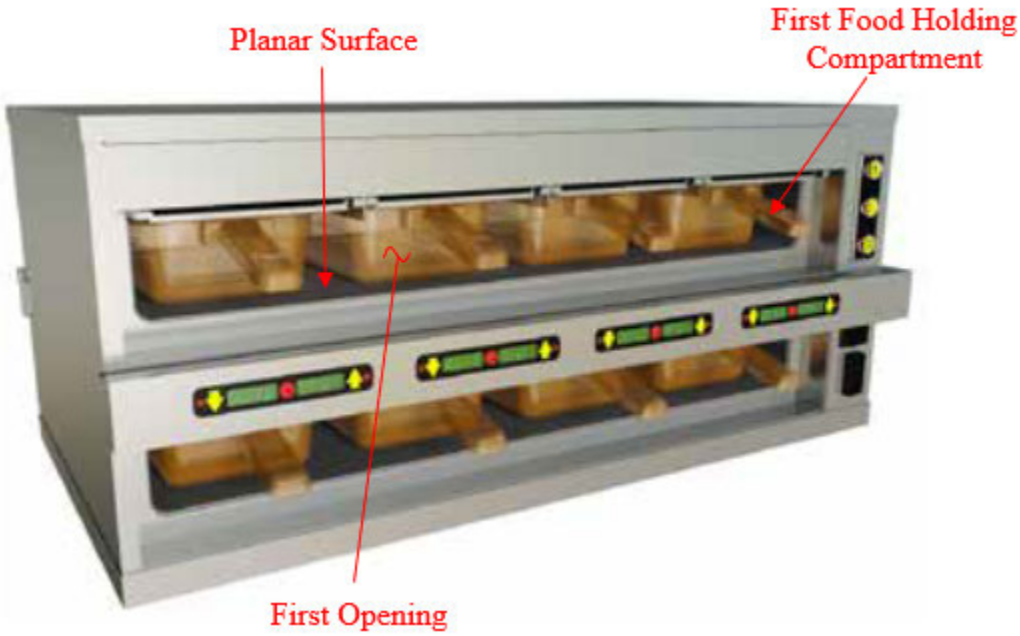
The substantially planar surface extends completely to the first opening.

EX1003: ¶133.




EX1005: 8.

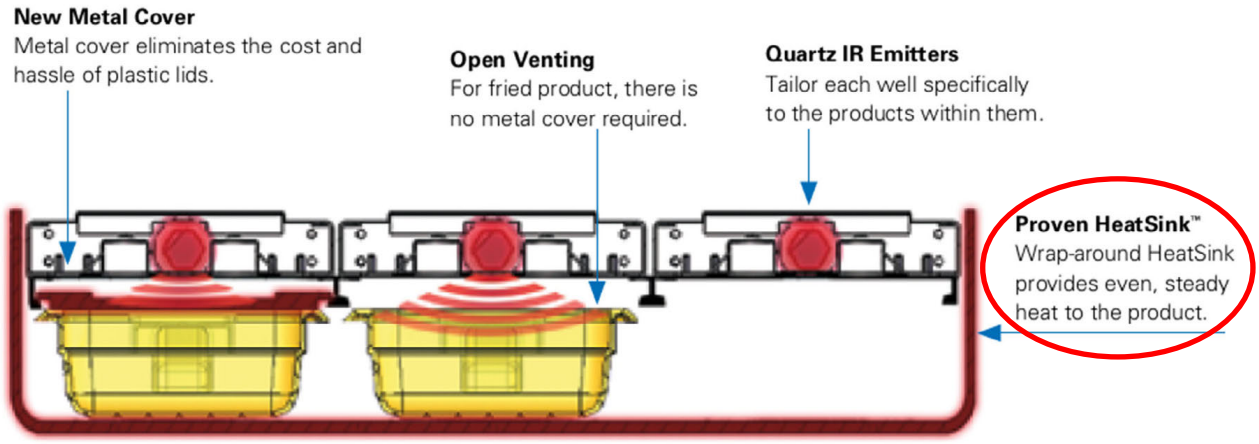

First Food Holding Compartment
First Opening
Planar Surface
Duke


Planar Surface
First Food Holding Compartment
First Opening

EX1007: 52, 56.

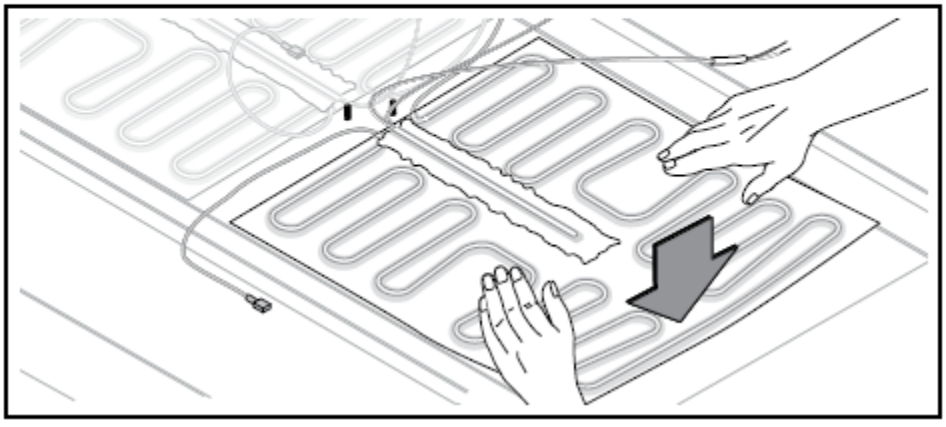
**1.c.3**

The substantially planar surface is part of IRHS24's HeatSink and is made of thermally conductive aluminum. EX1006: 1; EX1007: 51; EX1005: 16; EX1003: ¶¶134-136.




EX1007: 53.

14. Peel the adhesive tape cover off the replacement Heat Element and press in place on the heat sink, ensuring all air bubbles are smoothed out.

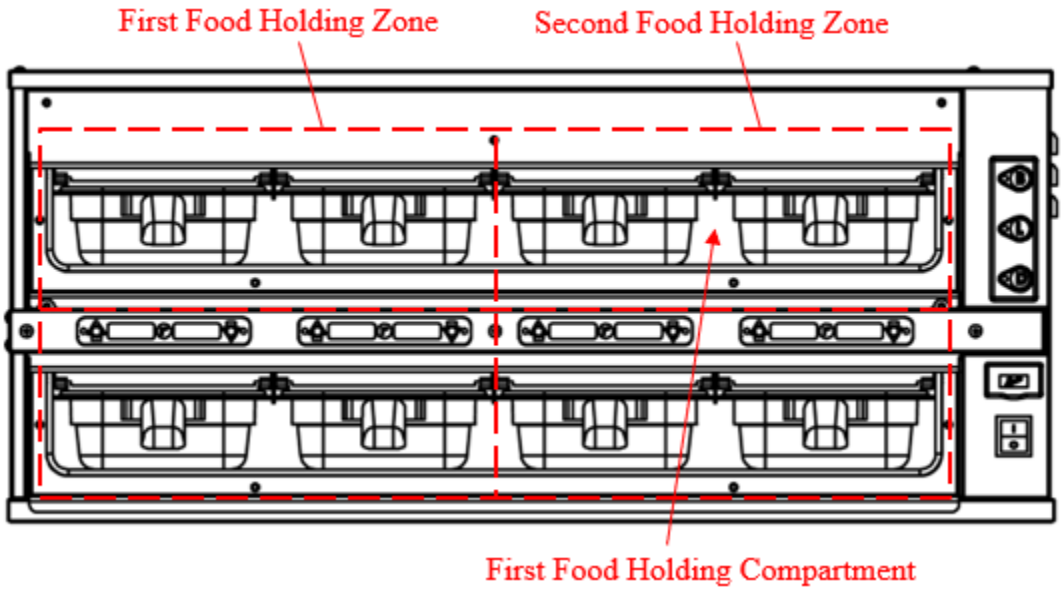


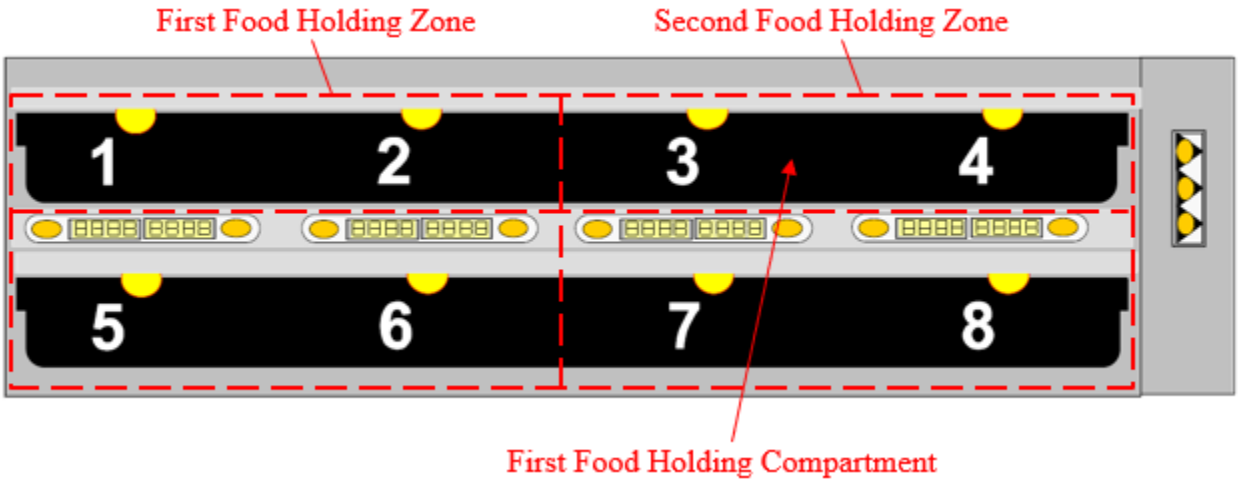
EX1008: 23.

Moreover, it would have been obvious to make the heatsink plates from aluminum, like the aluminum covers, for durability and good heat transfer, with reasonable expectation of success (known suitability for zoned/heated warming cabinet shelves). EX1005: 4, 8, 20-21; EX1007: 53, 58; EX1020: ¶¶[0021]-[0023]; EX1003: ¶137.

**1.d.1/1.e.1**

IRHS24 has first and second food holding zones in the first compartment. EX1003: ¶¶138, 165.

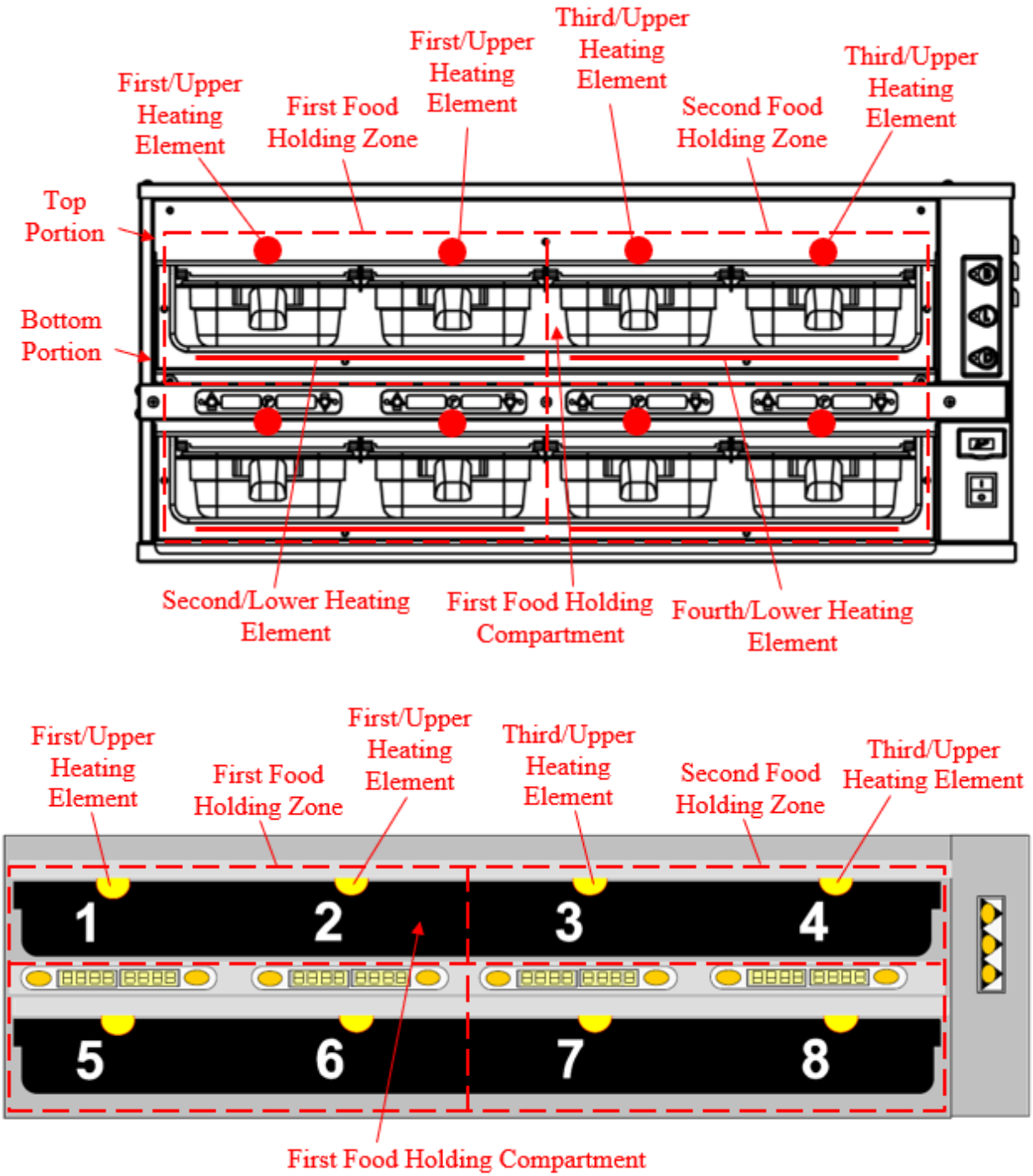





EX1005: 8, 25.

**1.d.2/1.e.2**

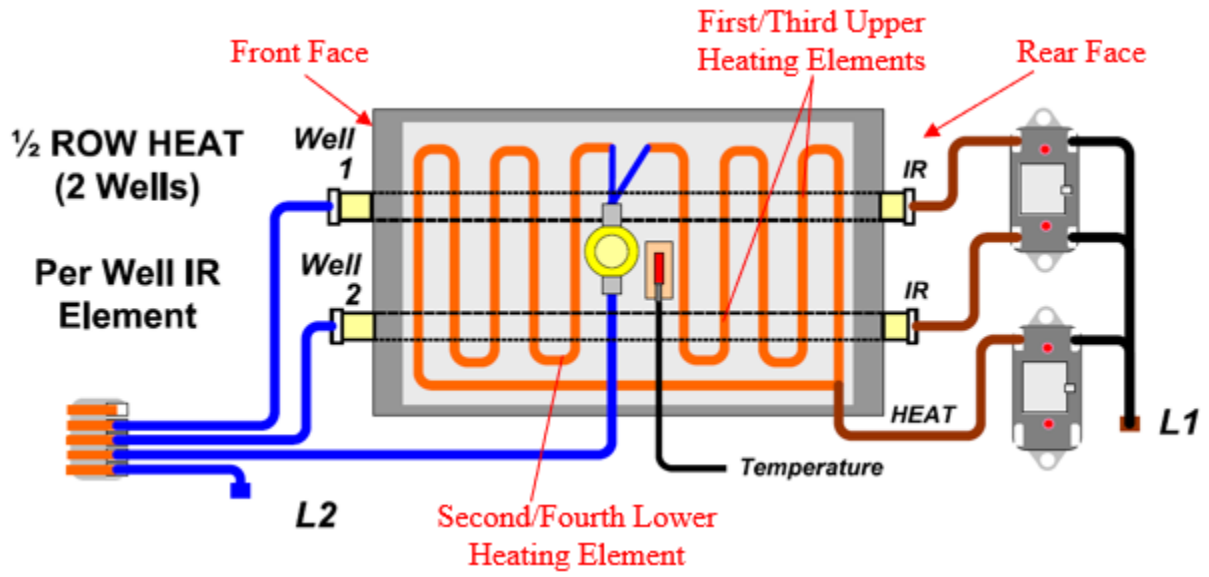
IRHS24's first and second zones have independently controllable first and third heating elements (IR bulbs) and independently controllable second and fourth heating elements (electrical heating elements) at respective top and bottom portions of the first compartment. EX1003: ¶¶139-140, 163, 166-167.




EX1005: 8, 25.

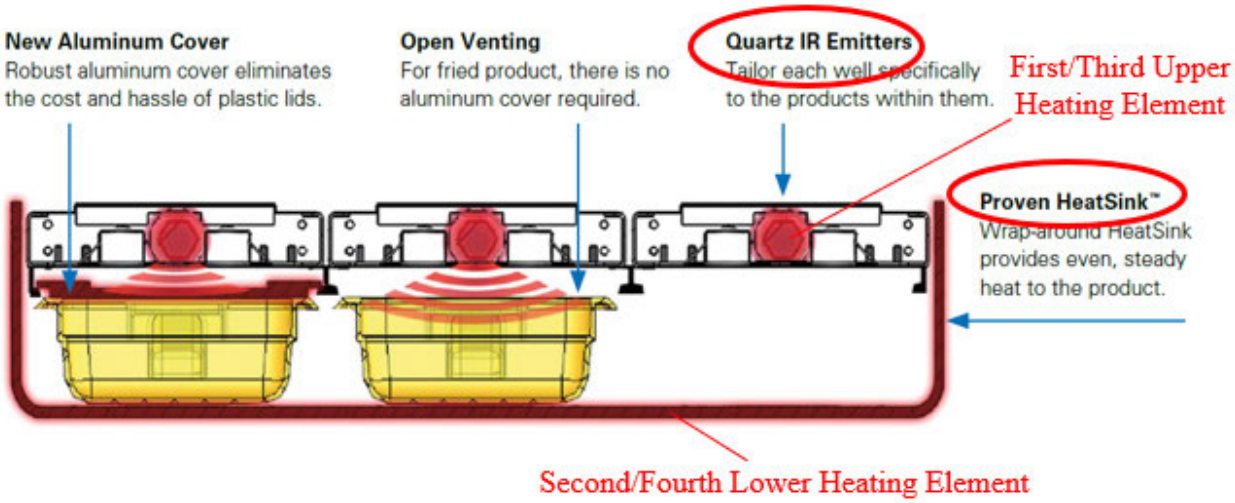
IRHS24 has four food holding zones. EX1003: ¶¶141, 150-152. The schematic below shows the upper (first/third) and lower (second/fourth) heating

elements for *one* zone. EX1005: 21 (elements 16 and 17), 25; EX1007: 53; EX1003: ¶¶141, 168.

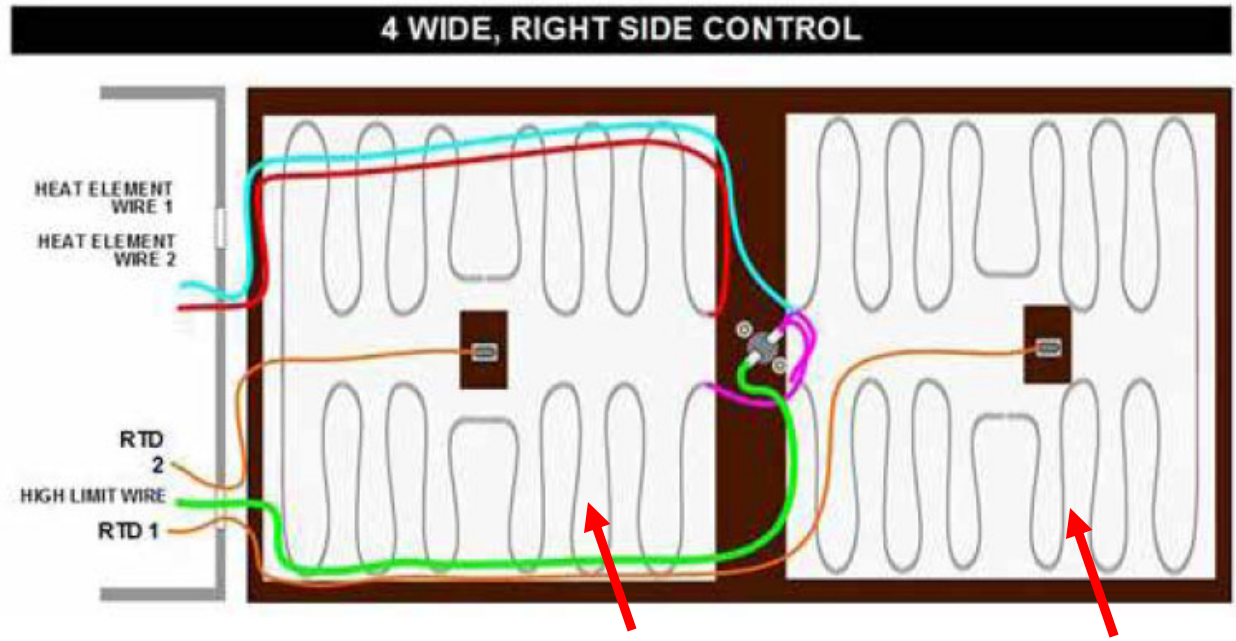



EX1005: 25.

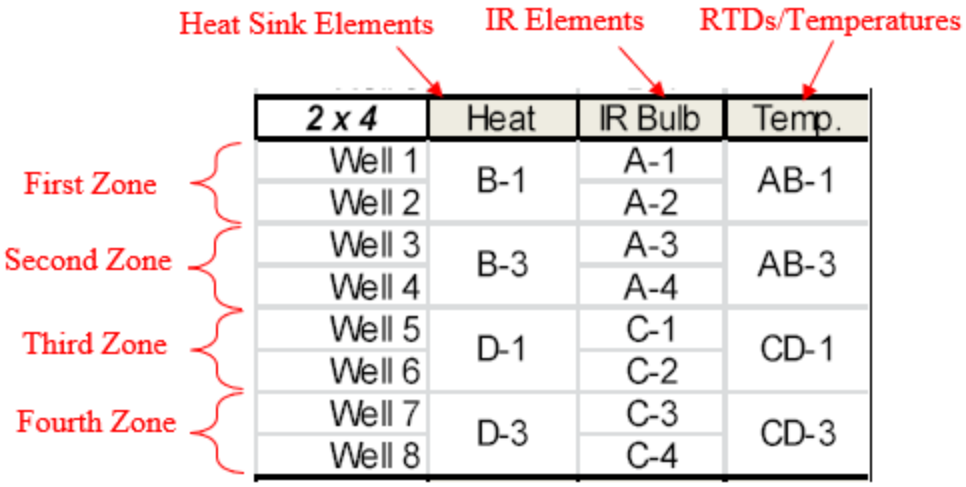
IRHS24 has two IR upper elements per zone (one per bay/well), and a single lower element per zone. EX1003: ¶¶142, 144-145. The IR upper (first/third) heating elements are at a top portion of the first compartment, and the lower (second/fourth) heating elements are at a bottom portion of the first compartment. EX1006: 1; EX1007: 53; EX1003: ¶143.




EX1007: 53.




EX1008: 58.

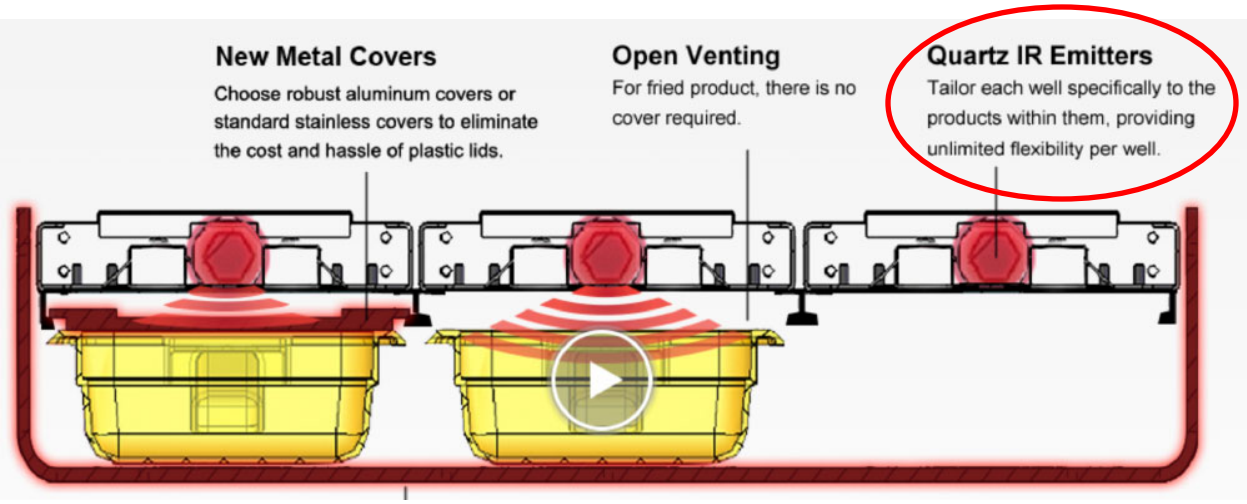



| 2 x 4 | Heat | IR Bulb | Temp. |
|---|---|---|---|
| Well 1 | B-1 | A-1 | AB-1 |
| Well 2 | | A-2 | |
| Well 3 | B-3 | A-3 | AB-3 |
| Well 4 | | A-4 | |
| Well 5 | D-1 | C-1 | CD-1 |
| Well 6 | | C-2 | |
| Well 7 | D-3 | C-3 | CD-3 |
| Well 8 | | C-4 | |

EX1008: 64.

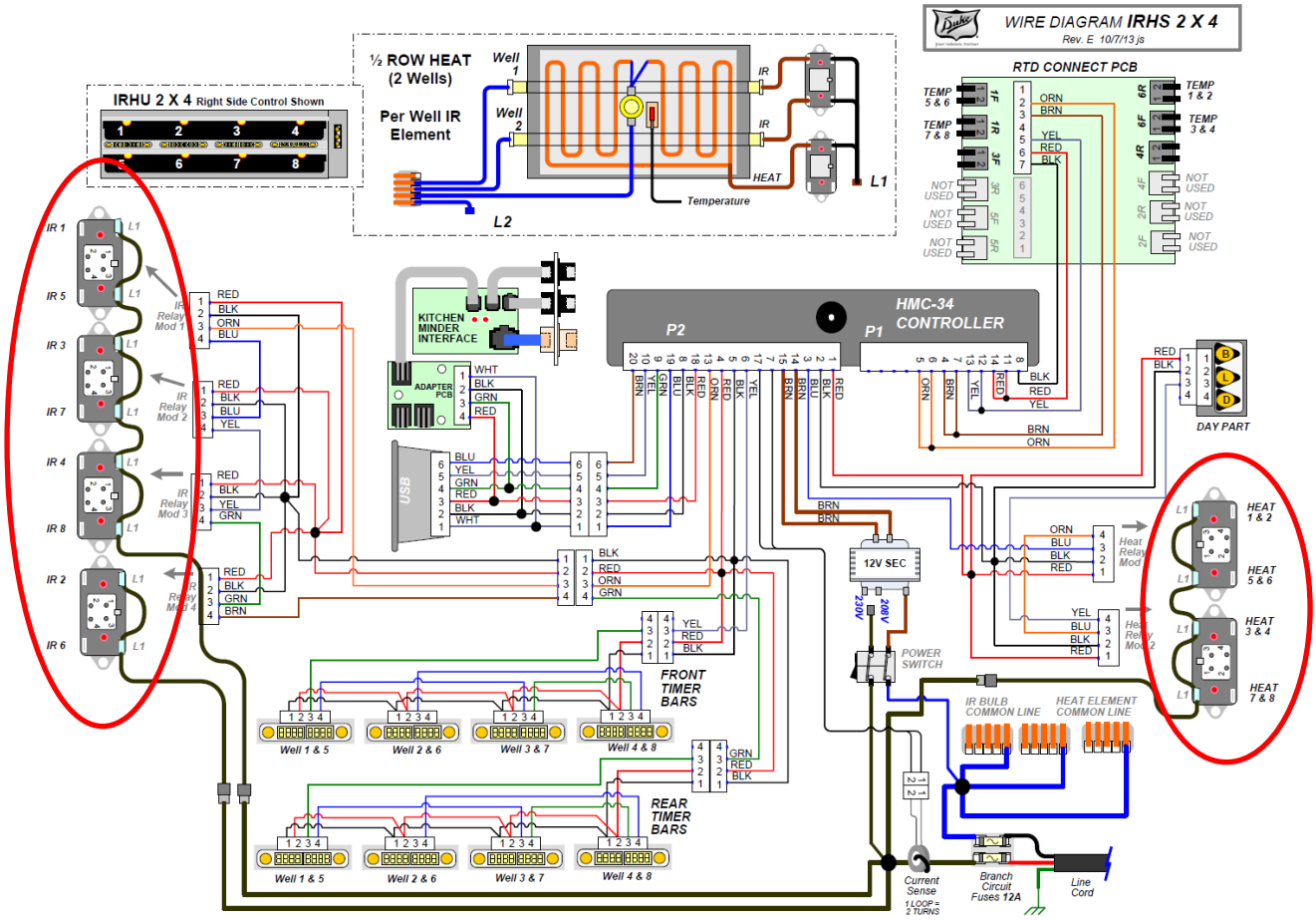
The upper (first/third) and lower (second/fourth) heating elements are independently controllable from each other and other zones' heating elements. EX1005: 16, 25; EX1006: 1; EX1007: 53; EX1003: ¶146, 169.

The IRHS Documents teach "[z]oned bottom heat" and "individually controlled IR emitters" for top heat. EX1006: 1; EX1007: 53; EX1007: 10, 53; EX1005: 15; EX1003: ¶147. For example, the IR bulbs operate independently of the lower heating elements via "IR Turbo Boost" for an "instant shot of IR energy." EX1006: 1; EX1007: 22, 53; EX1003: ¶148.




EX1007: 10.

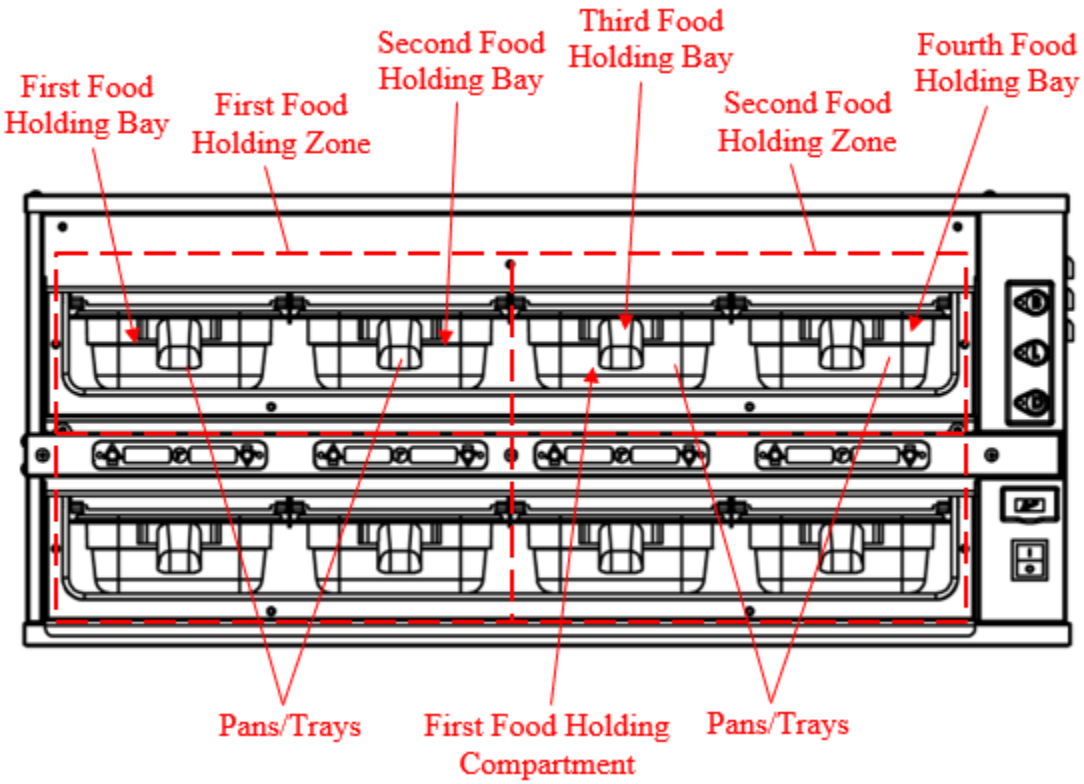
The wiring diagram shows independent control for every heating element via the controller independently operating the relay for each heating element. EX1003: ¶¶149, 153-157.

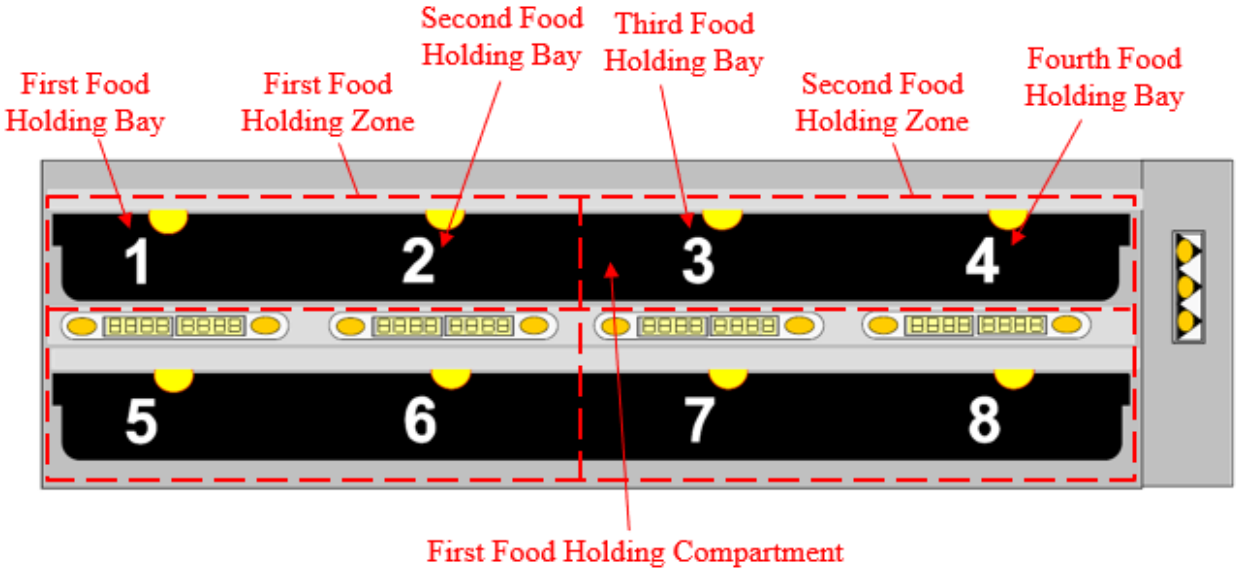



EX1005: 25.

**1.d.3/1.e.3**

The first and second zones each include two bays (four total), each receiving a pan/tray. EX1003: ¶164, 170.

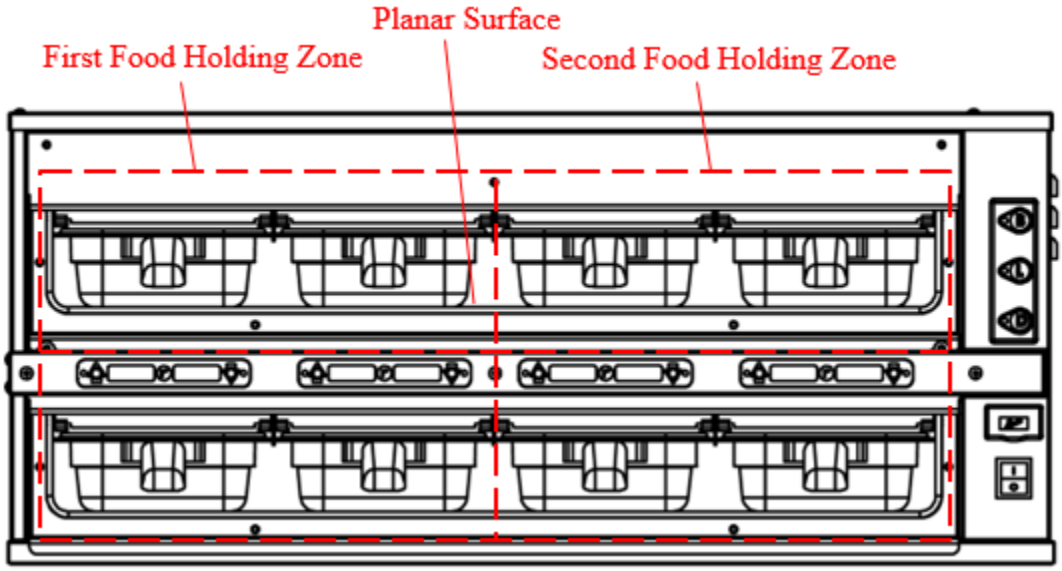

First Food Holding Bay
First Food Holding Zone
Second Food Holding Bay
Third Food Holding Bay
Second Food Holding Zone
Fourth Food Holding Bay
Pans/Trays
First Food Holding Compartment
Pans/Trays

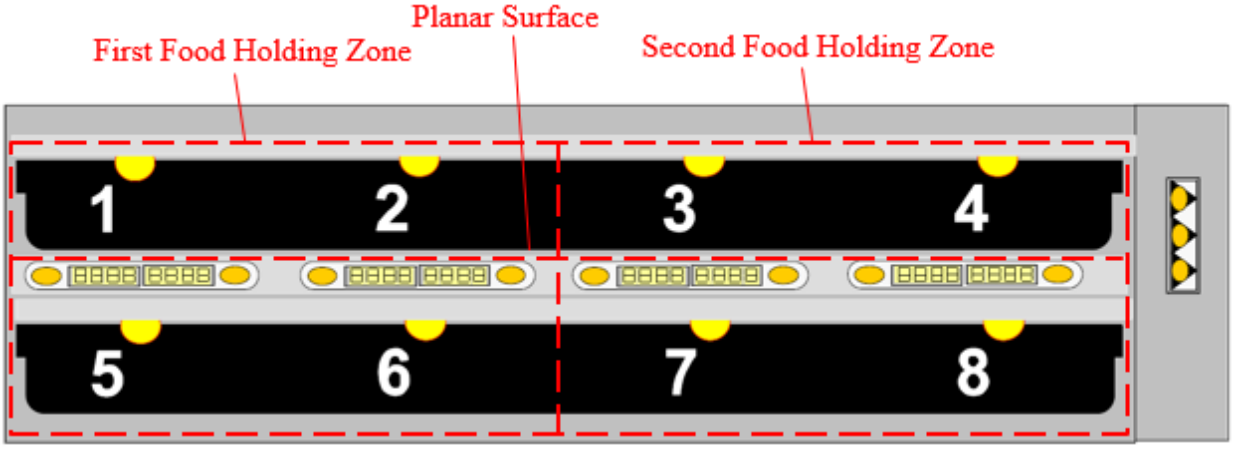

First Food Holding Bay
First Food Holding Zone
Second Food Holding Bay
Third Food Holding Bay
Second Food Holding Zone
Fourth Food Holding Bay
1
2
3
4
5
6
7
8
First Food Holding Compartment

EX1005: 8, 25.

**1.f.1**

The first and second zones are adjacent across the planar surface. EX1003: ¶171.



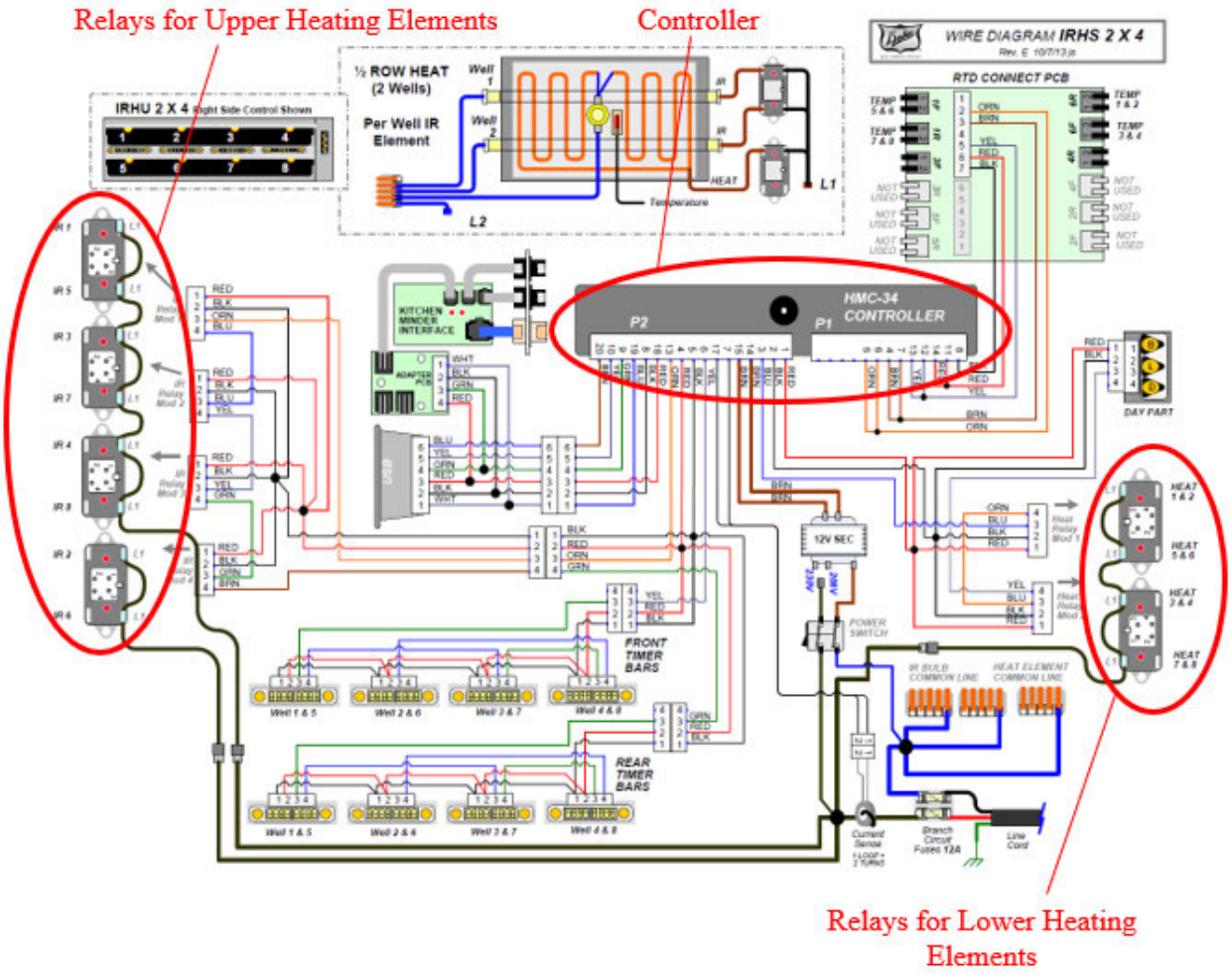




EX1005: 8, 25.

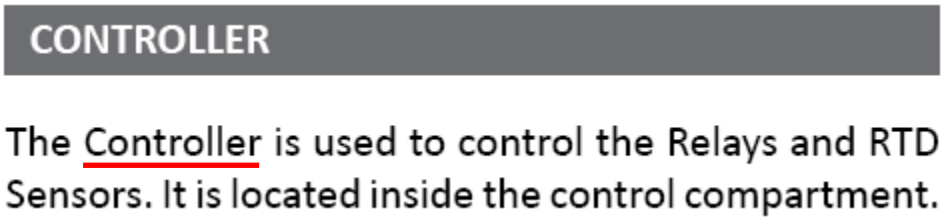
**1.f.2/13**

As explained in Section IV(B)(1.d.2/1.e.2), upper and lower heating elements of each zone are independently controllable from each other and other

zones' heating elements. EX1003: ¶¶172-173, 257. The wiring diagram shows a controller connected to each heating element for independent operation, so each zone has an independently controlled/maintained temperature (first and second temperatures). EX1005: 16; EX1006: 1; EX1007: 53; EX1003: ¶174. Thus, each zone can have a different temperature. EX1003: ¶175.



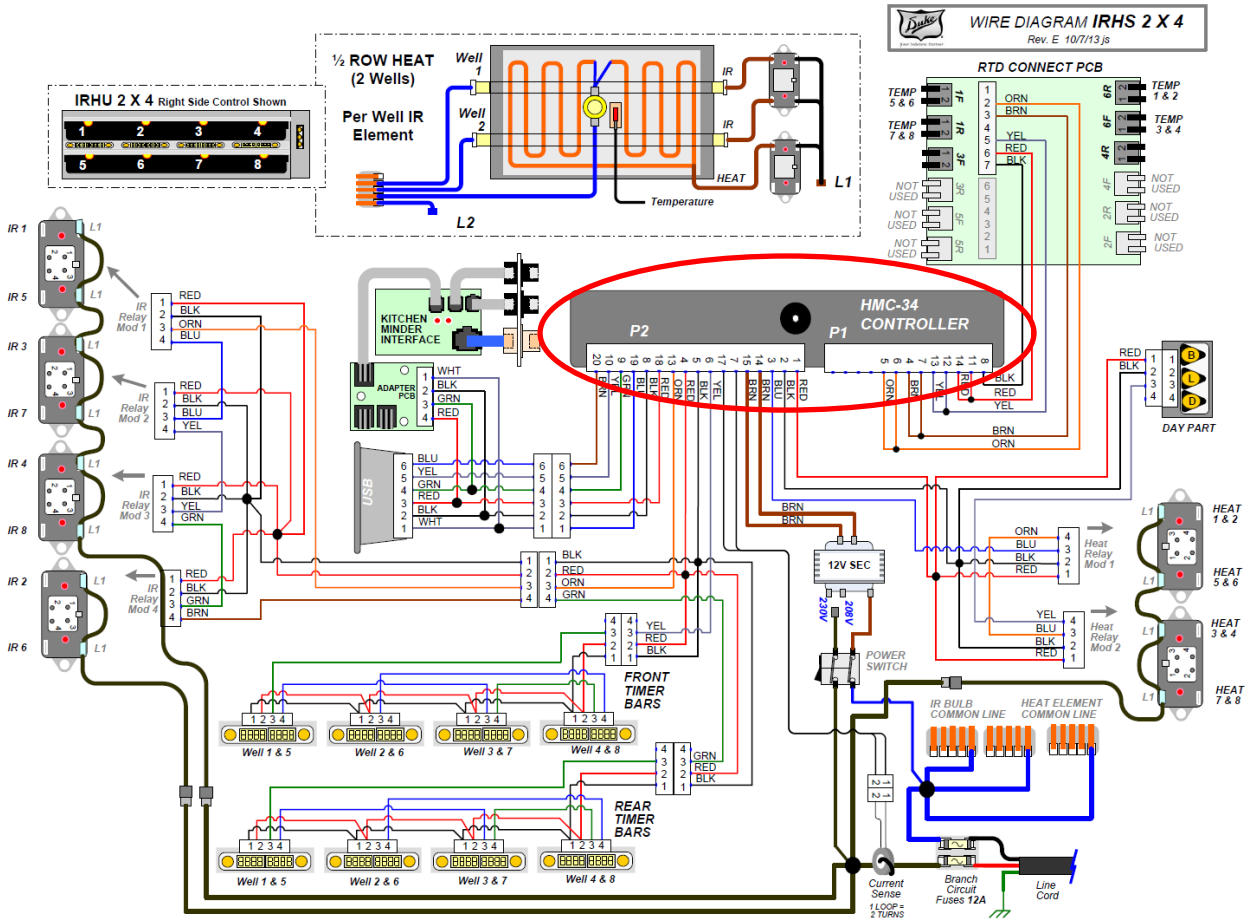

EX1005: 25.




EX1008: 30.

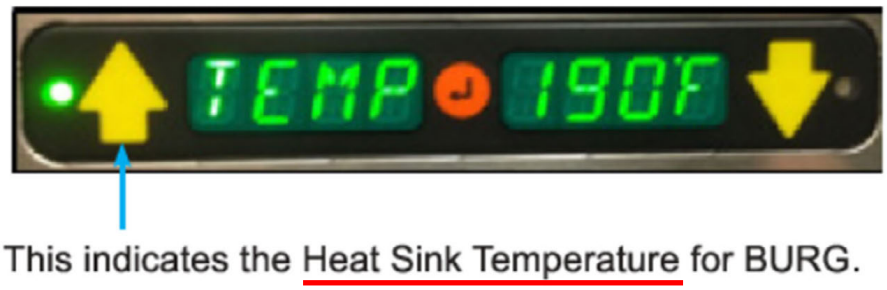
The IR emitters individually "pulse on and off" and the bottom heat is zoned to independently control the zones' temperatures. EX1005: 25; EX1006: 1; EX1007: 10. EX1003: ¶176.

Each zone's heating elements are operated based on specific food type(s) assigned to the bay/zone to provide/maintain different temperatures for each zone. EX1006: 1; EX1005: 4, 16, 25; EX1007: 10, 51, 53; EX1003: ¶¶177-179, 258. The controller independently operates the heating elements to control each zone's vertical temperature profile. EX1006: 1; EX1007: 51; EX1005: 16, 25; EX1003: ¶¶180-181.




EX1005: 25.

For example, a maintainable bottom temperature for each zone is based on sensor feedback and food type temperature setting. EX1005: 16, 25; EX1006: 1; EX1007: 53; EX1003: ¶182.




EX1005: 17.

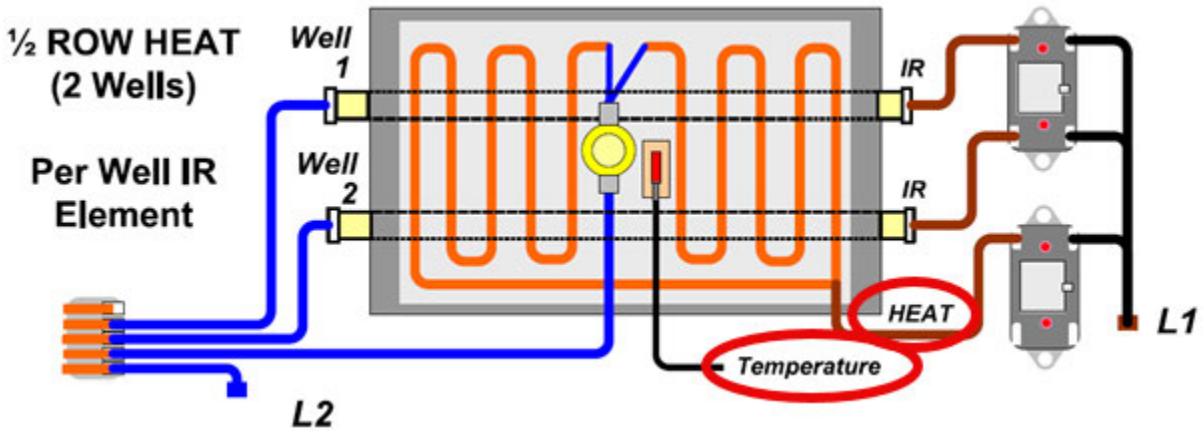
**SENS – SENSOR FAULT**

- May indicate the unit has been programmed improperly (i.e. loading a 2x4 product configuration file into a 2x2 unit). An attempt to properly reprogram the unit should be made.
- May indicate a fault with a heat sink temperature sensor. The affected pan location is not available for timing product and a qualified service technician should be contacted to identify the cause of the fault

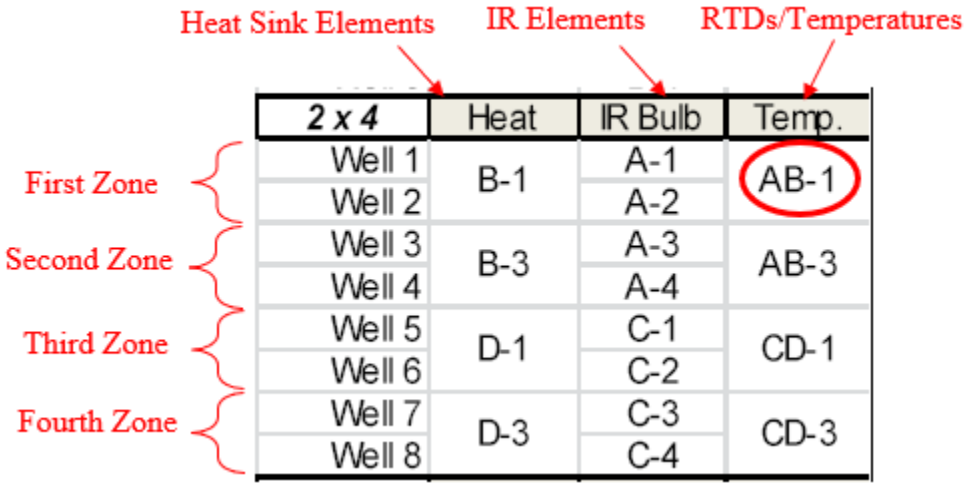
**TEMPERATURE CHECK PROCEDURE**

1. A digital temperature meter that has been calibrated must be used to get an accurate temperature reading. Use a thermocouple surface temperature probe to measure temperatures.
2. **No pans should be in wells during the pre-heat and temperature check.** Pre-heat the warmer for 30 minutes before taking any temperature readings. Do not take readings unless the cavity has been empty for 30 minutes. This will allow the temperature to stabilize and will prevent false readings.
3. The warmer cavity should be cleaned and empty before the temperature is checked. Avoid any air drafts that might flow through the cavity.
4. Locate the surface temperature probe on the bottom of the first cavity as shown for the cabinet size.
5. All temperature controls exhibit a swing in temperature as the control cycles on and off while regulating to the set point. The correct calibration temperature is the average of several readings taken over a period of 20 minutes after the warmer has been pre-heated. The average temperature should be ± 5°F from the set point.

EX1005: 15.



EX1005: 25.




| 2 x 4 | Heat | IR Bulb | Temp. |
|---|---|---|---|
| Well 1 | B-1 | A-1 | AB-1 |
| Well 2 | | A-2 | |
| Well 3 | B-3 | A-3 | AB-3 |
| Well 4 | | A-4 | |
| Well 5 | D-1 | C-1 | CD-1 |
| Well 6 | | C-2 | |
| Well 7 | D-3 | C-3 | CD-3 |
| Well 8 | | C-4 | |

EX1008: 64.

The IRHS Documents teach customized temperature settings by food type and zones having different food types. EX1006: 1; EX1005: 4, 16; EX1007: 51, 53; EX1003: ¶¶183, 259. Temperature settings for each zone are independent of food types in other zones. EX1005: 25; EX1006: 1; EX1007: 53; EX1003: ¶¶183, 260.

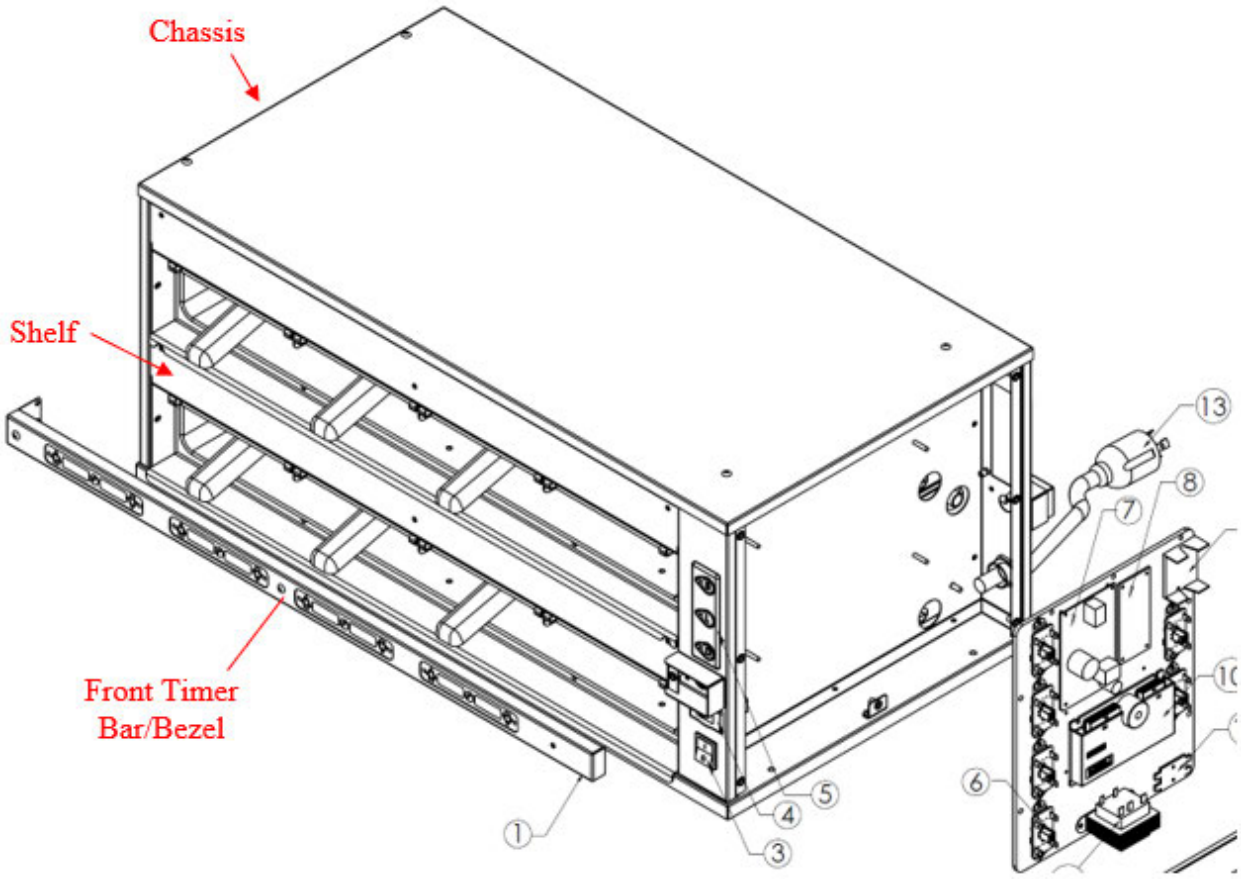



EX1007: 12.

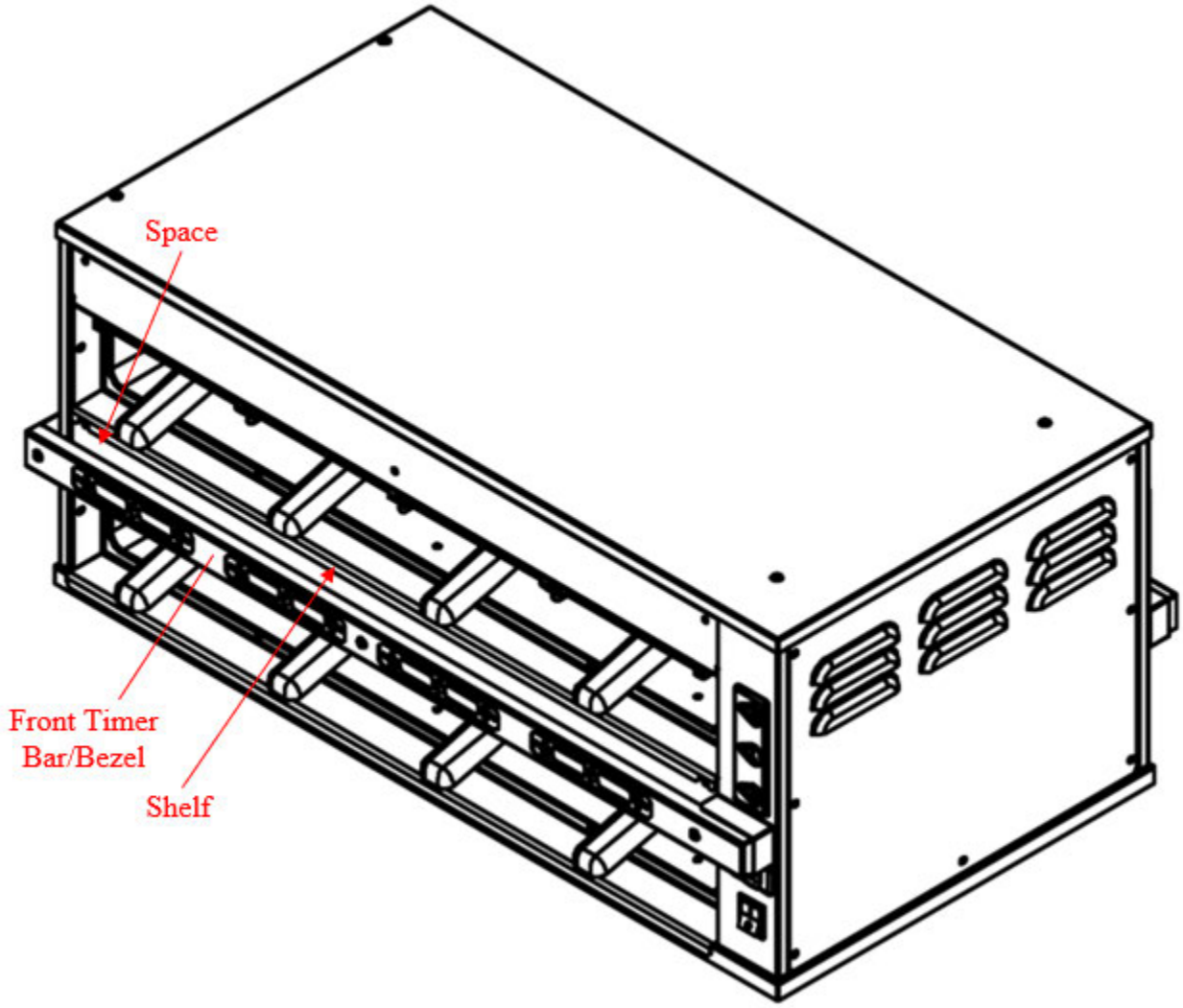
It would have been obvious per the IRHS Documents to heat the zones to different temperatures for customized heat settings for different food types in each zone and to hold more/different food types to meet customer demands, with reasonable expectation of success (IRHS Documents' teachings and known suitability of heated multi-zone food cabinet shelves). EX1028: 30, 14, 39; EX1019: 1:17-45, 4:36-59; EX1010: ¶[0024]; EX1020: ¶¶[0021]-[0023]; EX1012: ¶¶[0069], [0072], [0096]; EX1003: ¶¶184. 255-256, 261-262.

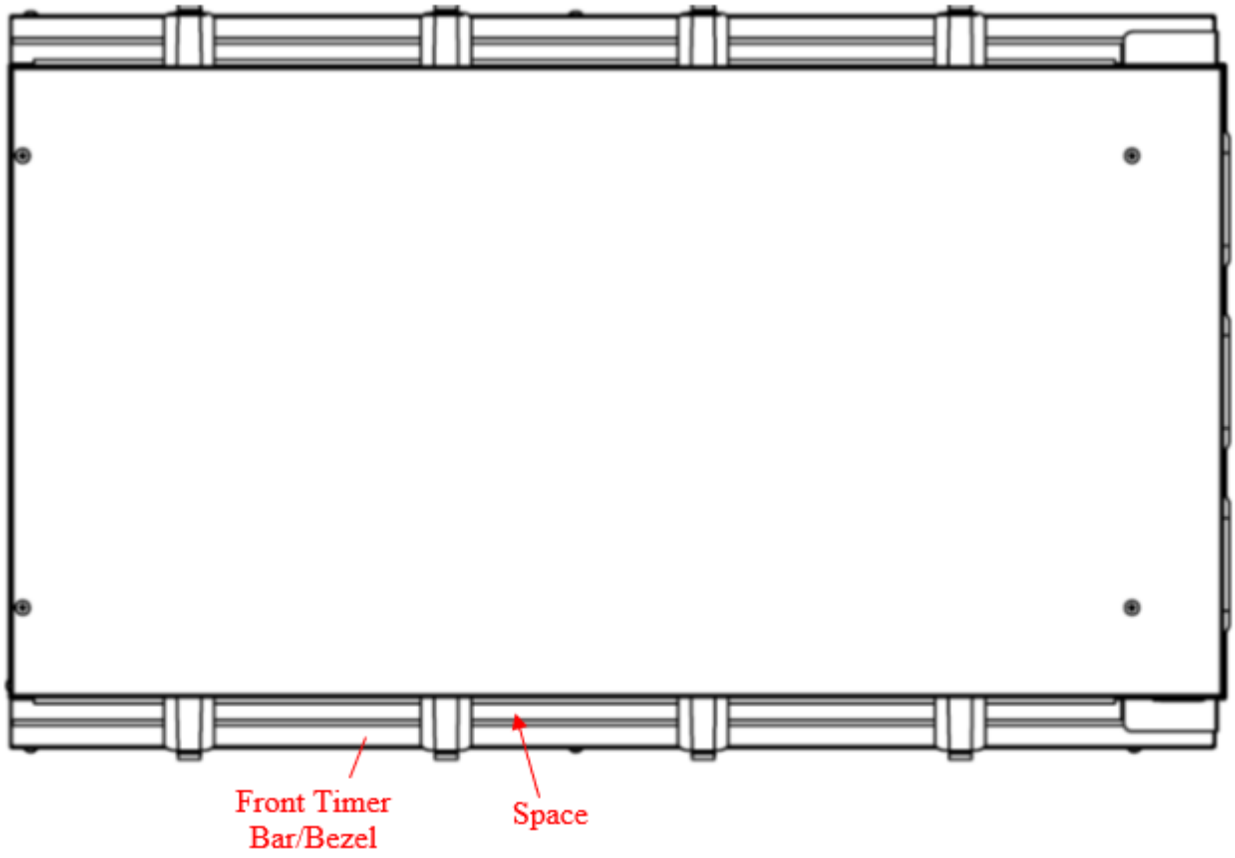
**1.g**

IRHS24 has a front timer bar/bezel spaced forward from the shelf. EX1003: ¶¶185-187.

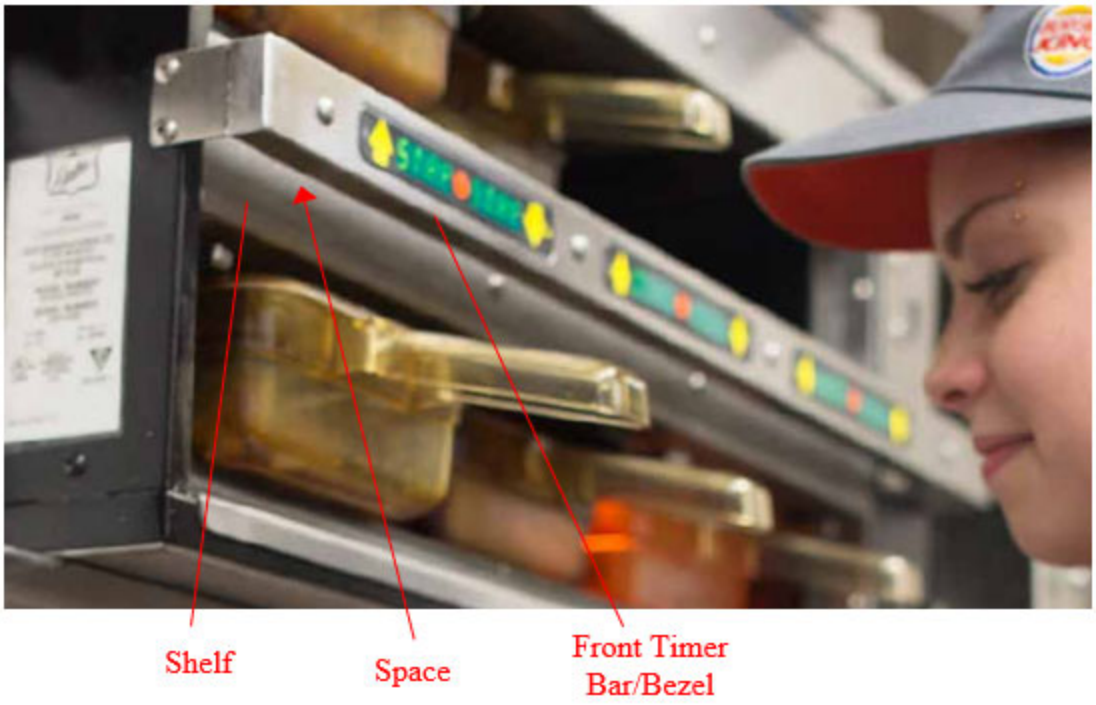



EX1005: 19.


Space
Front Timer
Bar/Bezel
Shelf


Front Timer
Bar/Bezel
Space

EX1005: 8.


Shelf
Space
Front Timer
Bar/Bezel

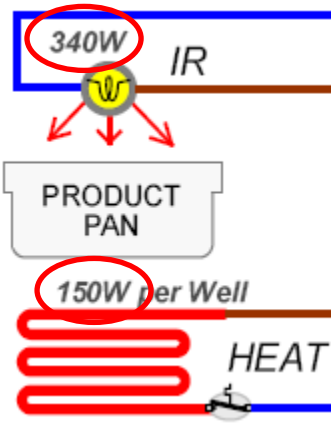
EX1007: 28.

### C. Independent Claim 14.

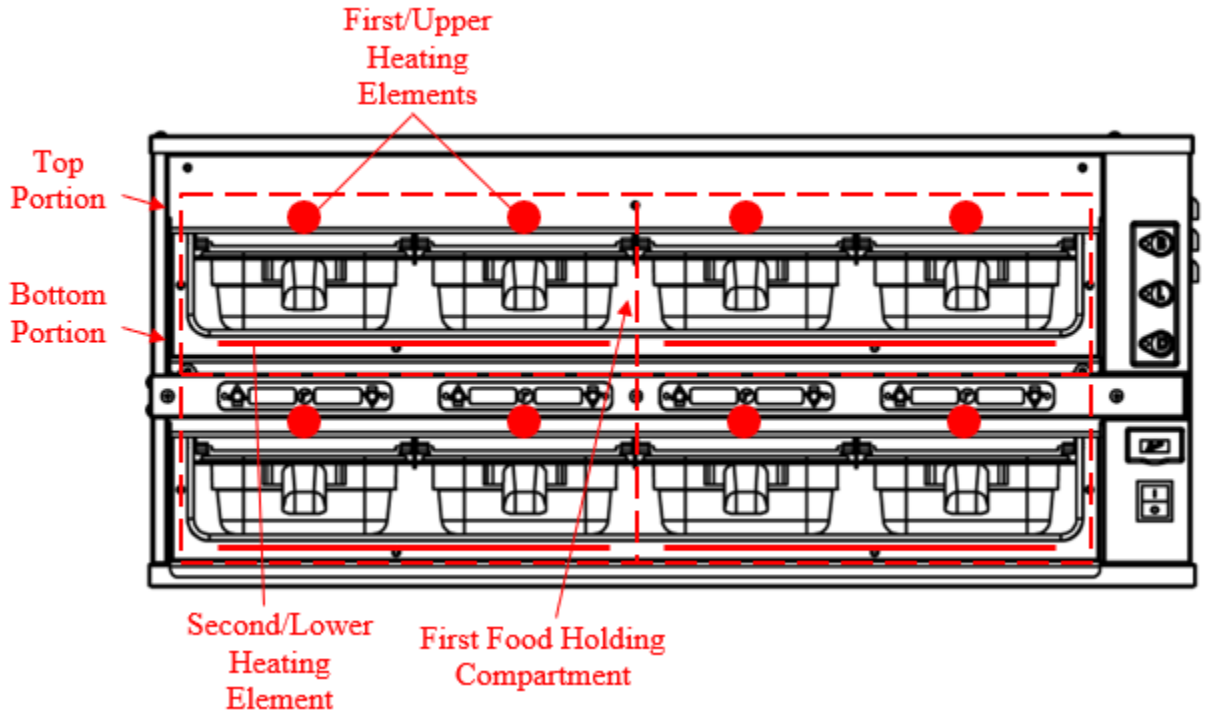
14.P-14.f.2 are met as explained in Sections IV(B)(1.P)-(1.f.2/13). EX1003: ¶¶263-264.

#### 14.g

As explained in Sections IV(B)(1.d.2/1.e.2) and (1.f.2/13), the first/upper and second/lower heating elements are independently controllable. EX1003: ¶¶265-266. The IR first/upper heating elements are controllable via controller (adapted) to output more heat energy than the second/lower heating element. EX1003: ¶266. Moreover, each first/upper heating element is rated (adapted) for more wattage (340W) than the second/lower heating element (300W). EX1008: 64; EX1003: ¶267. Further, the first/upper element performs "IR Turbo Boost for [an] instant shot of IR energy," while the second/lower element "provides ***gentle*** heat." EX1006: 1; EX1007: 22; EX1003: ¶268. The first/upper elements output more heat energy than the "gentle" second/lower element at least during IR Turbo Boost. EX1003: ¶¶268-269.




EX1008: 64.



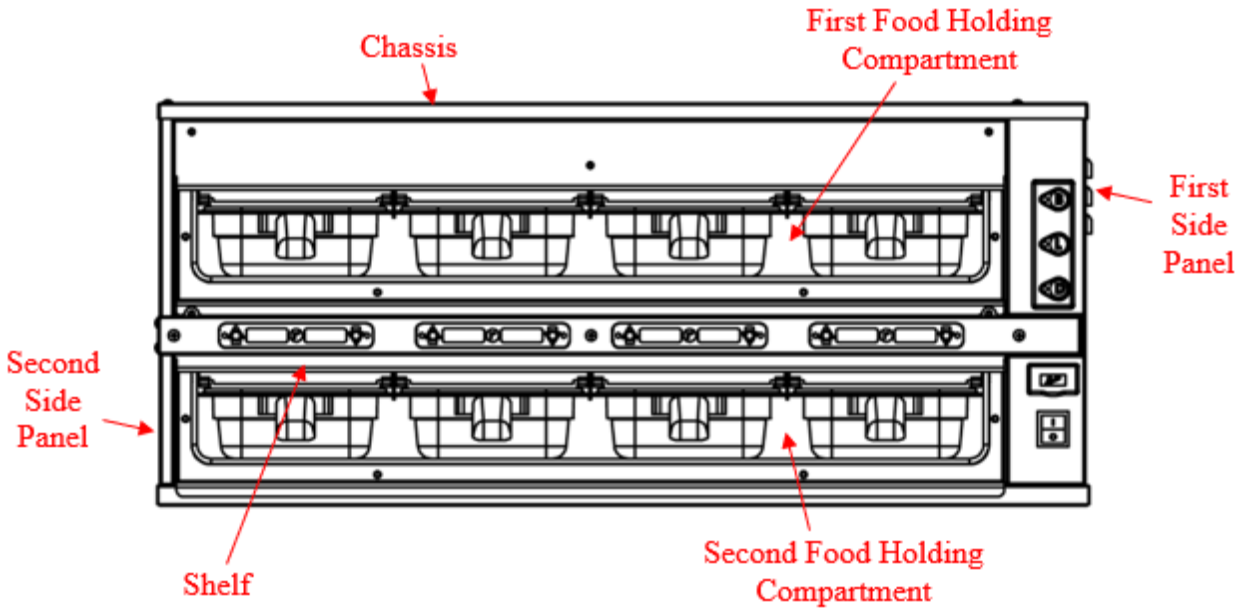

EX1005: 8.

### D. Independent Claim 21

21.P-21.f.2 are met as explained in Sections IV(B)(1.P)-(1.f.2/13). EX1003: ¶¶284-285.

**21.g.1**

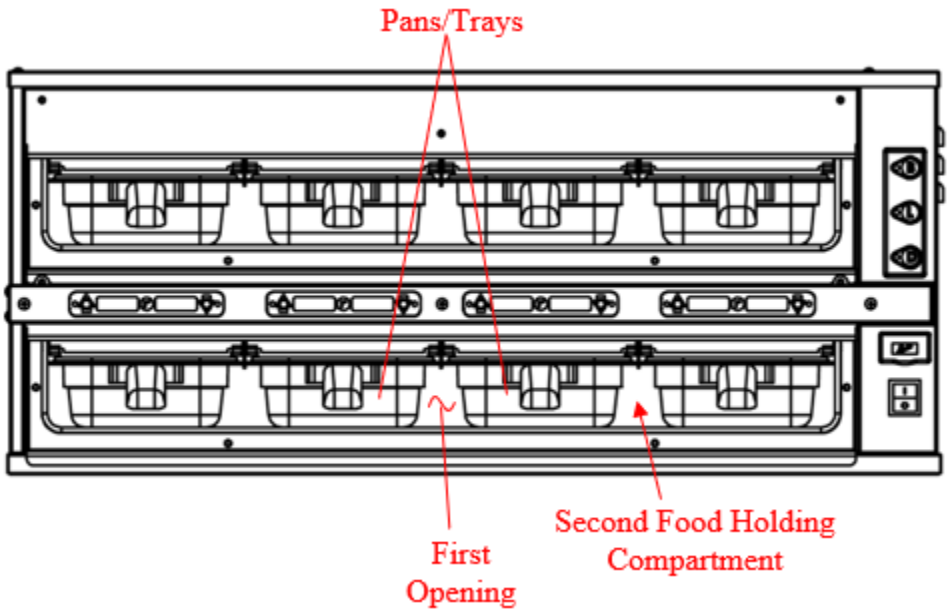
The first and second side panels and shelf define a second food holding compartment within the chassis below the first compartment. EX1003: ¶¶286-287.




EX1005: 8.

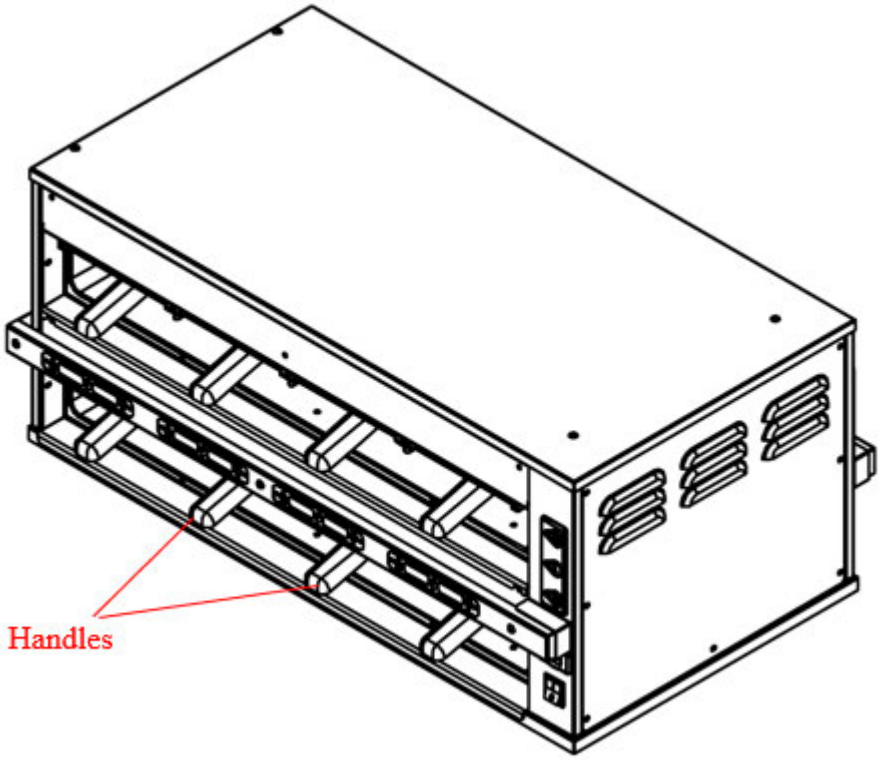
**21.g.2**

The second compartment's first opening is configured to allow insertion/removal of the pans of food into/from the second compartment. EX1003: ¶¶288-289.




EX1005: 8.

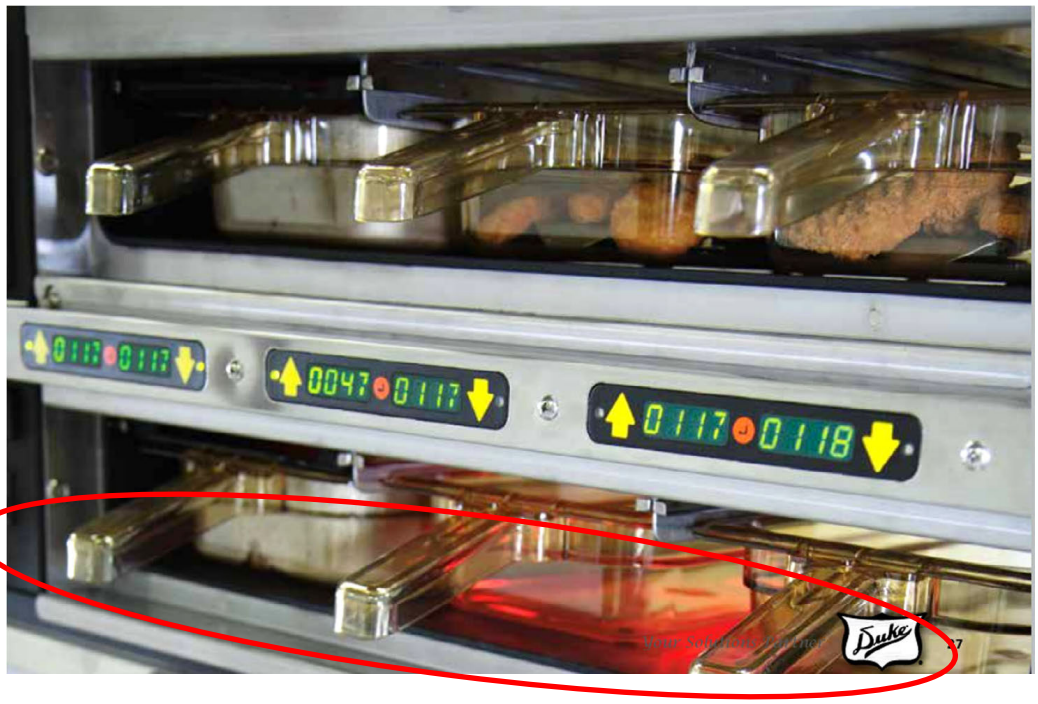
Pan handles protrude from the first opening for insertion/removal of pans through the second compartment's first opening. EX1007: 52; EX1003: ¶290.



EX1005: 8.



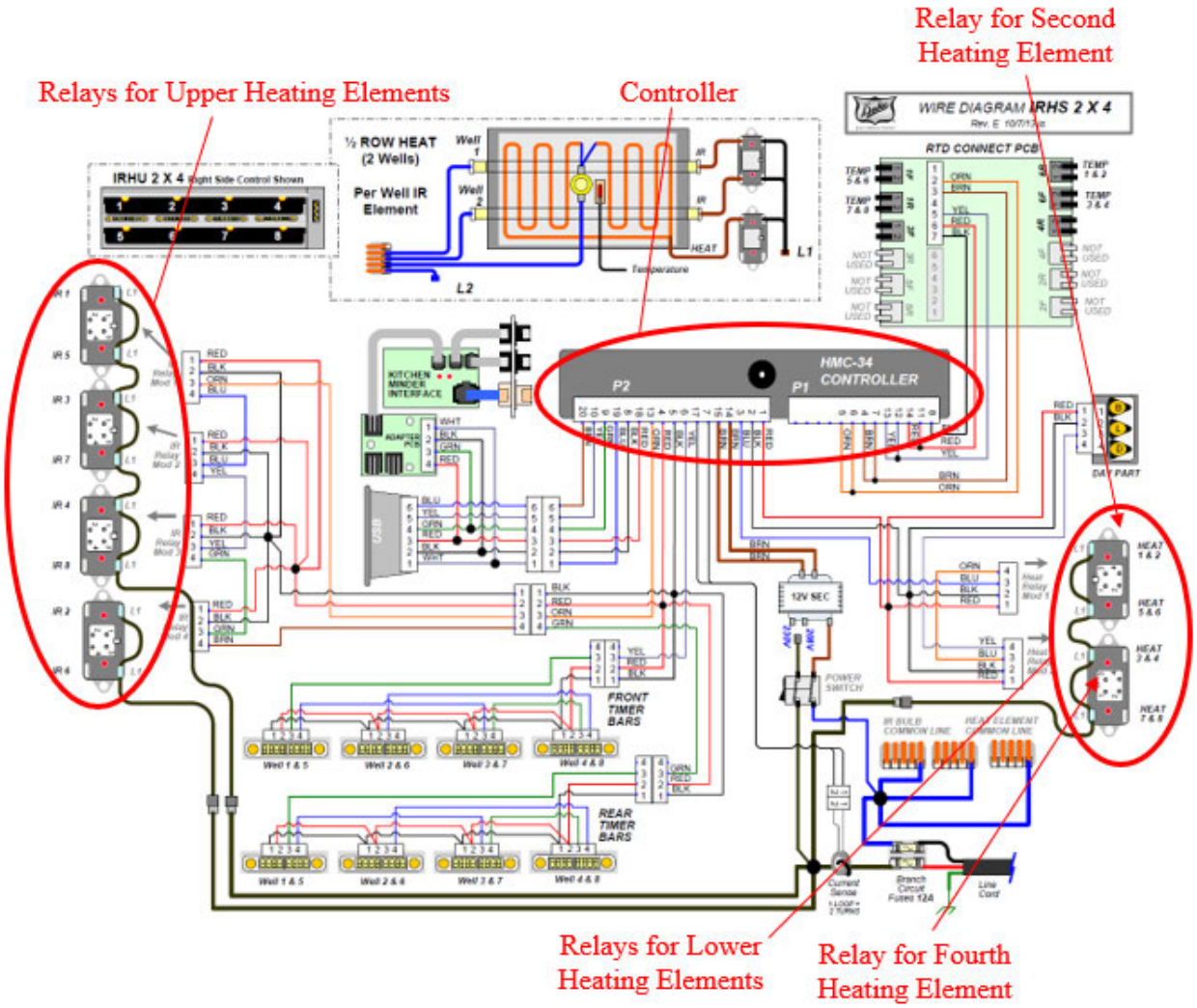

EX1007: 58.



EX1007: 52.

**21.h**

IRHS24 has a controller operatively coupled to each heating element (second and fourth elements). EX1005: 25; EX1003: ¶¶291-292.




EX1005: 25.

## CONTROLLER

The Controller is used to control the Relays and RTD Sensors. It is located inside the control compartment.

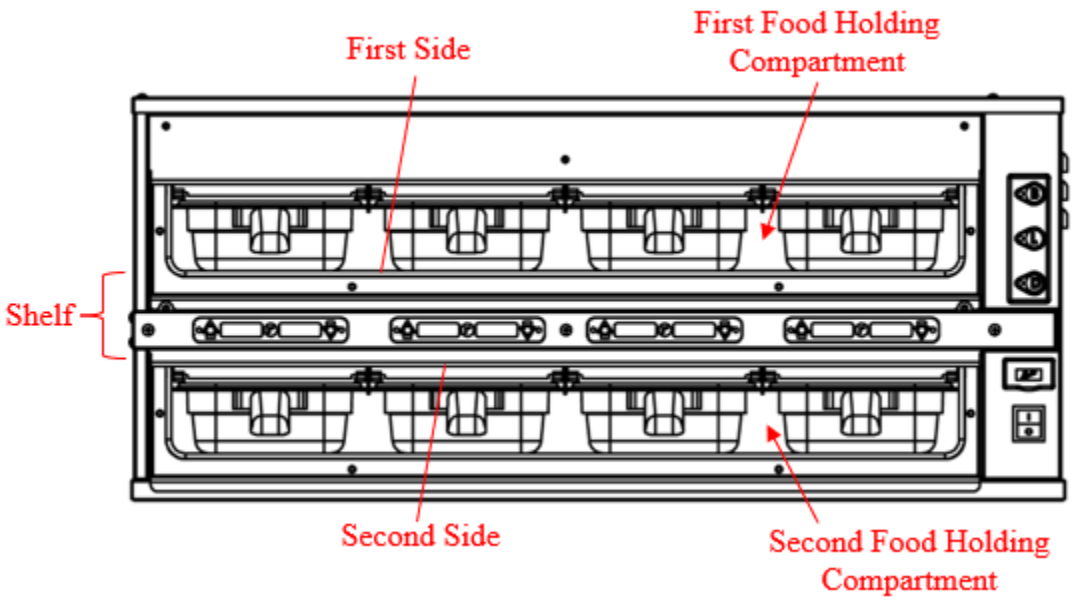
EX1008: 30.

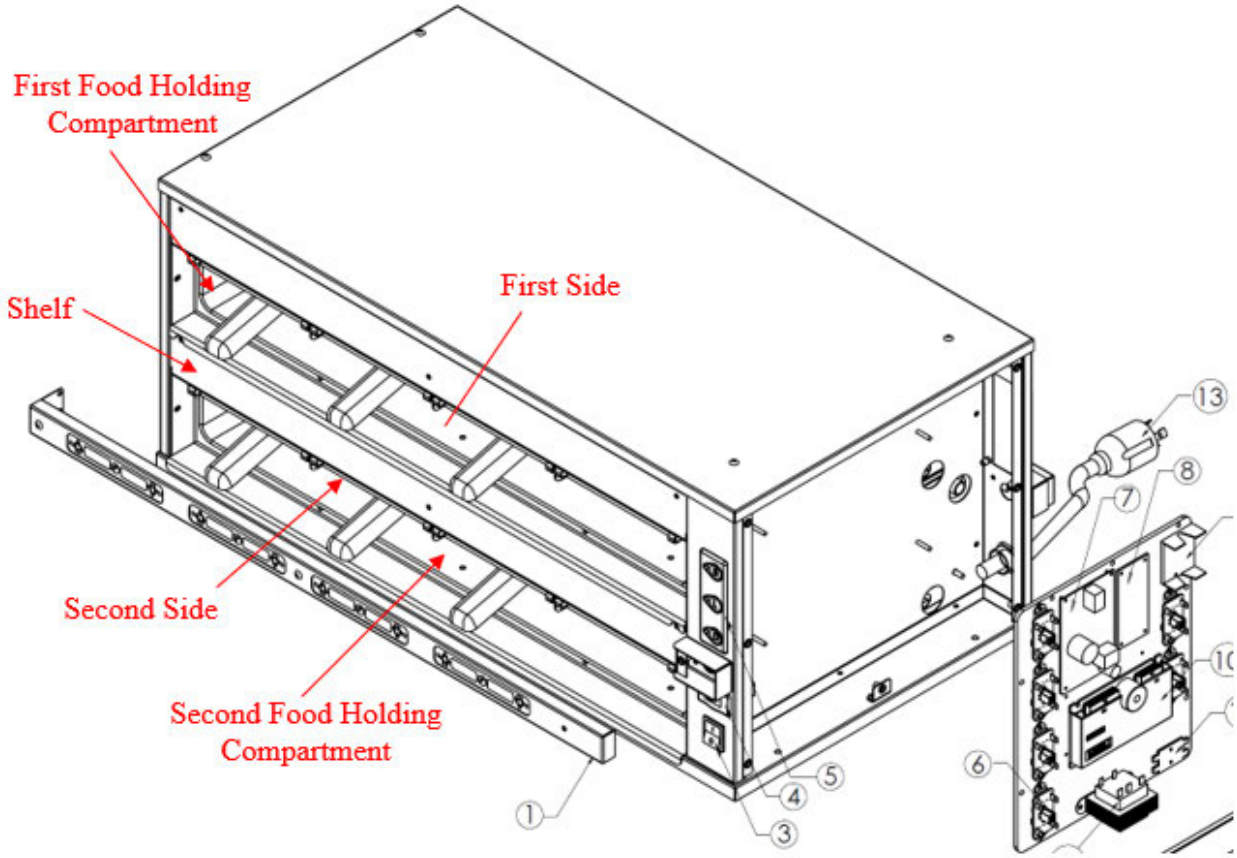
As explained in Section IV(B)(1.d.2/1.e.2), the heating elements (second and fourth elements) are independently controllable so each zone has an independently

controlled food holding temperature. EX1005: 16; EX1006: 1; EX1007: 53; EX1003: ¶293. The controller's connection to each heating element enables independent heating. EX1003: ¶¶294-295. The heating elements (second and fourth elements) of each zone are operated independently per the specific food product type(s) assigned to the bay/zone. EX1006: 1; EX1005: 4, 16, 25; EX1007: 10, 51, 53; EX1003: ¶¶296-297.

**21.i.1**

The shelf is between the first and second compartments, with first and second sides facing into the first and second compartments, respectively. EX1003: ¶¶298-299.

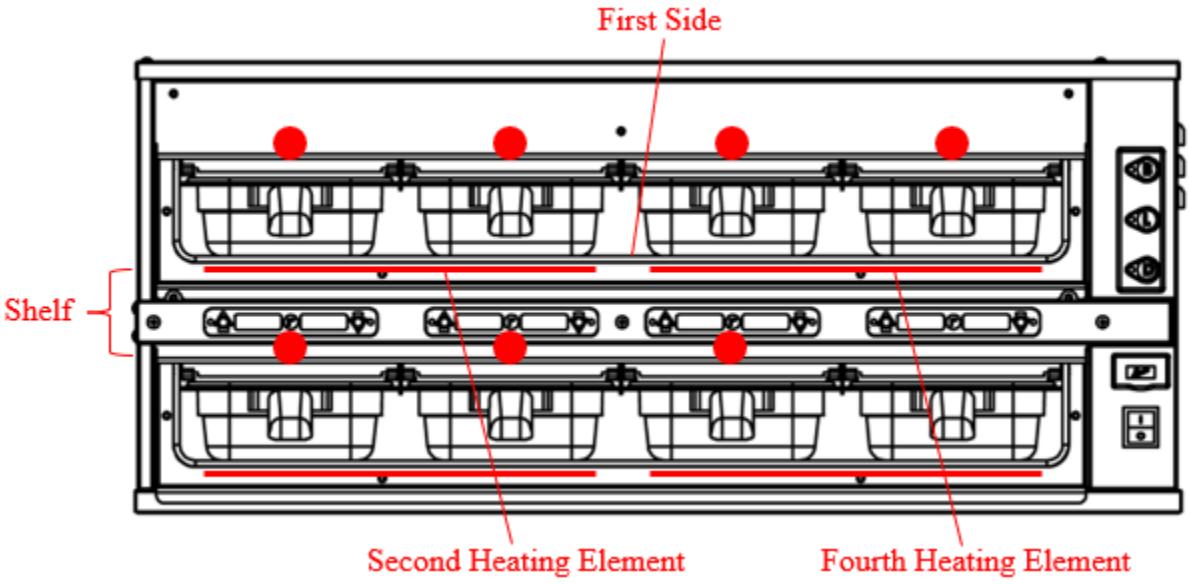





EX1005: 8, 20.

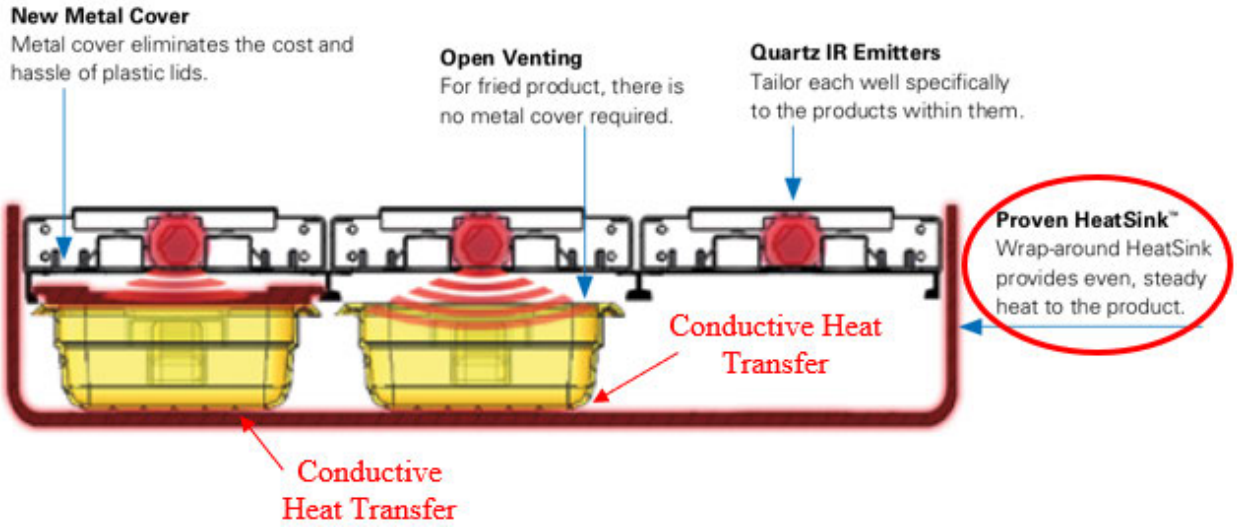
**21.i.2**

The POSA understands the second and fourth heating elements are in the shelf below the planar surface forming the first side. EX1007: 51, 53; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1003: ¶¶300-301.




EX1005: 8.

The second and fourth heating elements are each part of the HeatSink for heating pans from underneath. EX1007: 51; EX1003: ¶302.



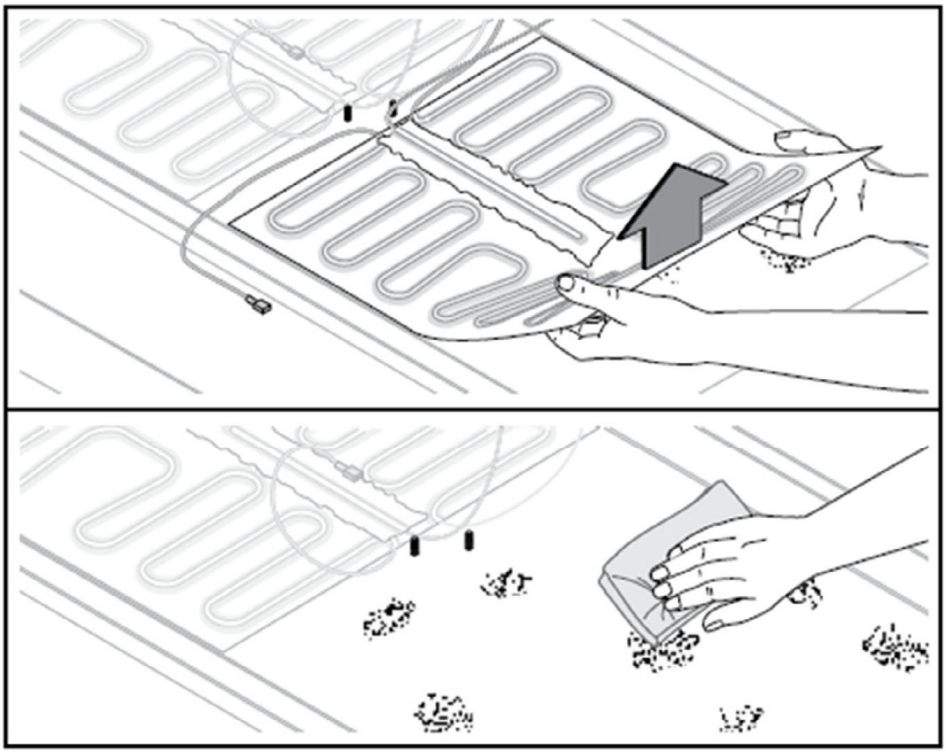

EX1007: 53.

## HEAT ELEMENTS

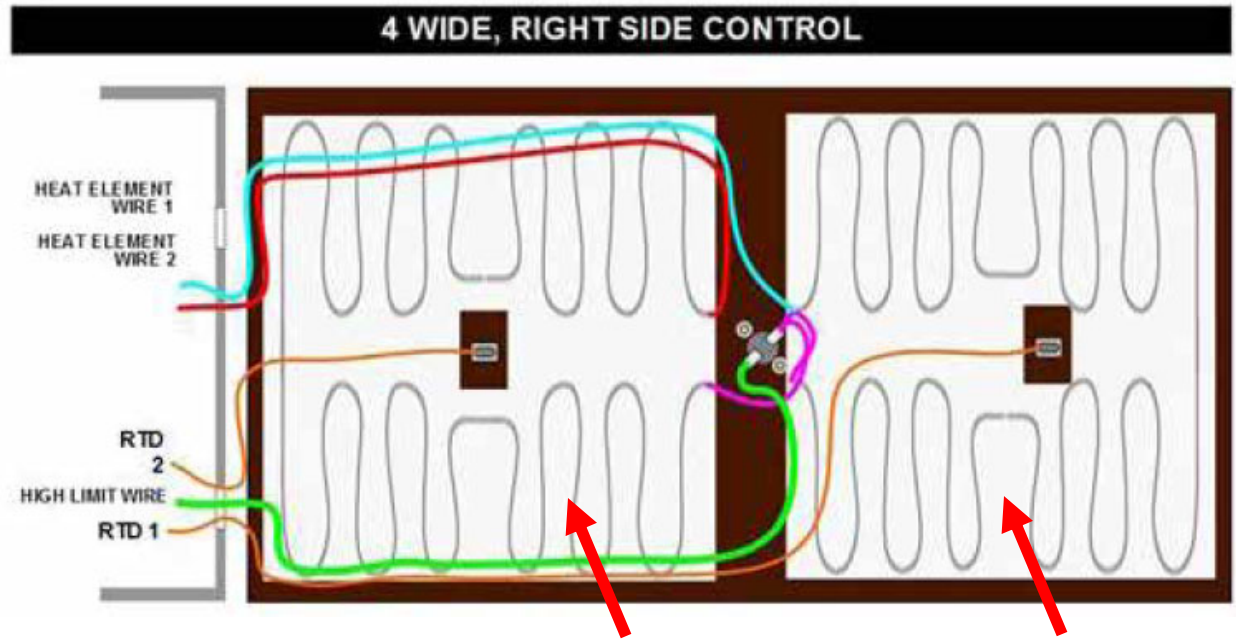
The Heat Elements provide the heating required to keep the heating wells at proper operating temperatures. The quantity varies depending on model and are affixed to the bottom of each Heat Sink.

EX1008: 21.

13. Remove the affected Heat Element by peeling off from the heat sink. Ensure any excess tape and/or adhesive is removed.



EX1008: 22.




EX1008: 58.

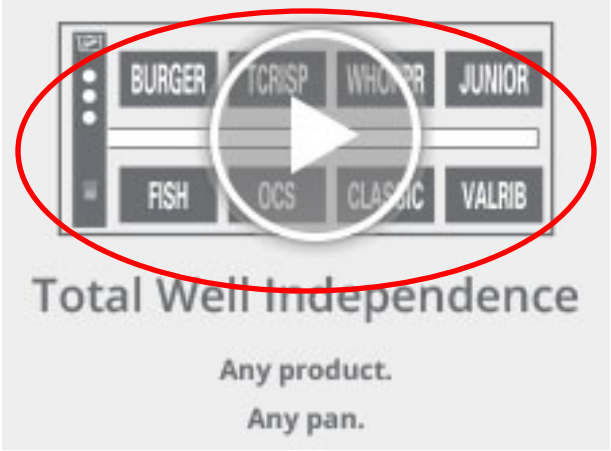
The POSA understands the second and fourth heating elements heat the shelf's first side and thus are in thermal communication with the first side. EX1007: 51, 53; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1003: ¶303.

**21.i.3**

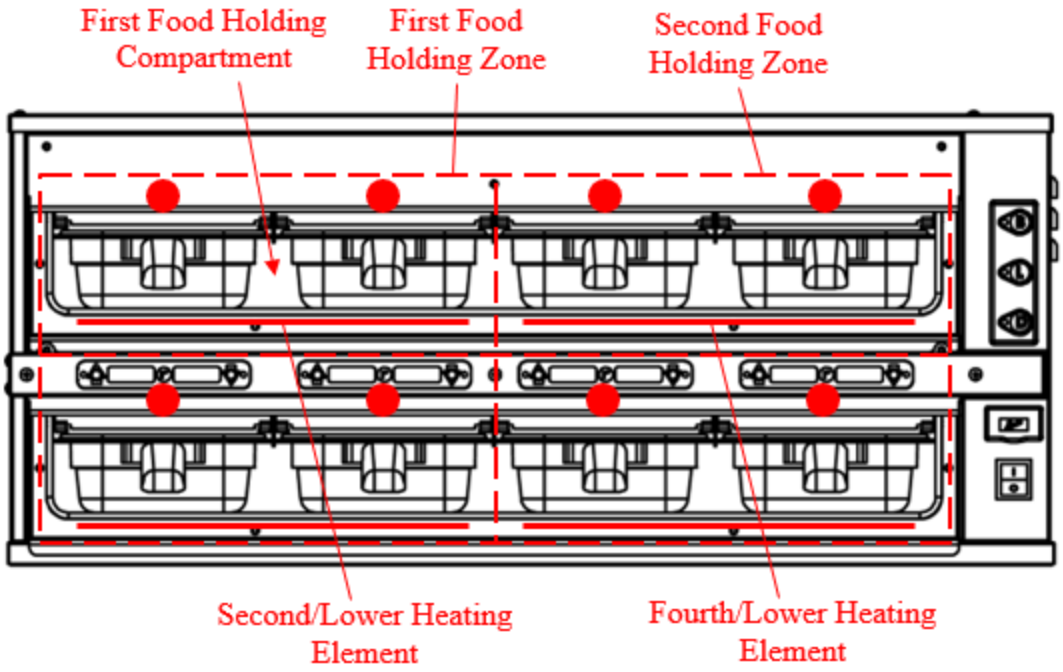
The second and fourth heating elements are independently controllable and thus capable of providing different heat energy amounts into the first and second zones. Section IV(B)(1.f.2/13); EX1005: 16, 25; EX1006: 1; EX1007: 53; EX1003: ¶¶304-306.

The controller operates the zone's heating elements (second and fourth heating elements) to heat the zones to different temperatures (different heat energy amounts) based on different/customized heat settings for different food types.

EX1003: ¶307. The IRHS Documents teach customized temperature settings by food type and independently heated zones (first and second) having different food types. EX1006: 1; EX1005: 4, 16, 25; EX1007: 51, 53; EX1003: ¶¶308-310.



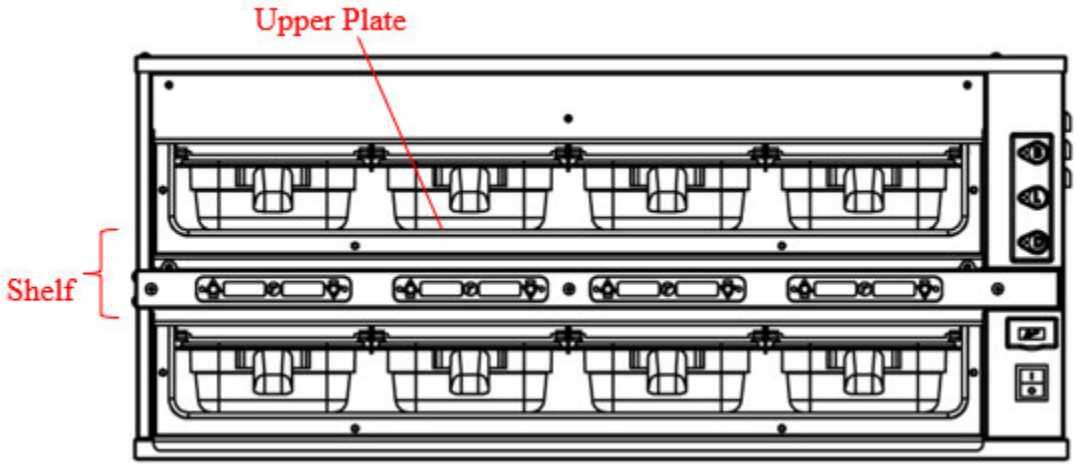

EX1007: 12.



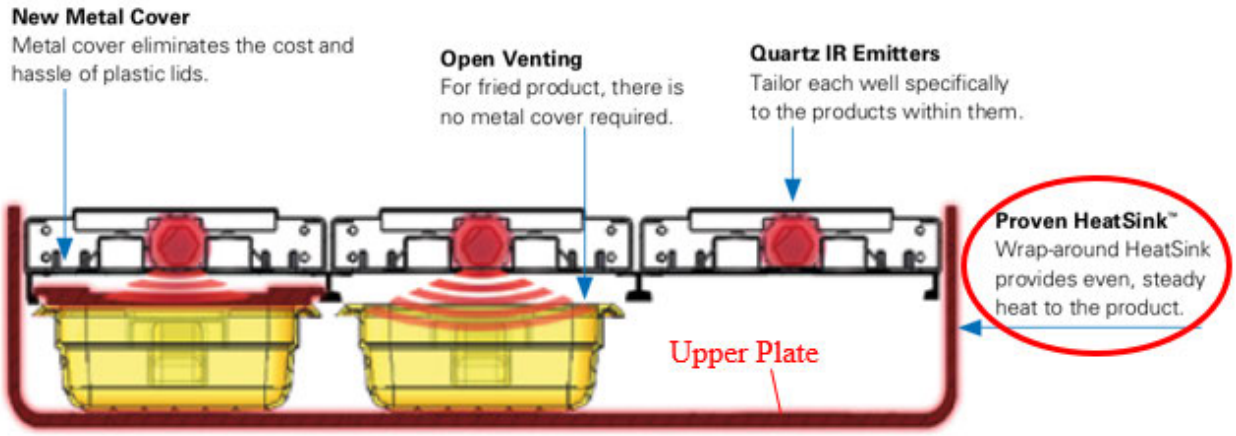

EX1005: 8.

**21.j.1**

The shelf has a thermally conductive aluminum upper plate forming the HeatSink's planar surface or this would have been obvious per Section IV(B)(1.c.3). EX1006: 1; EX1003: ¶¶311-312, 317.

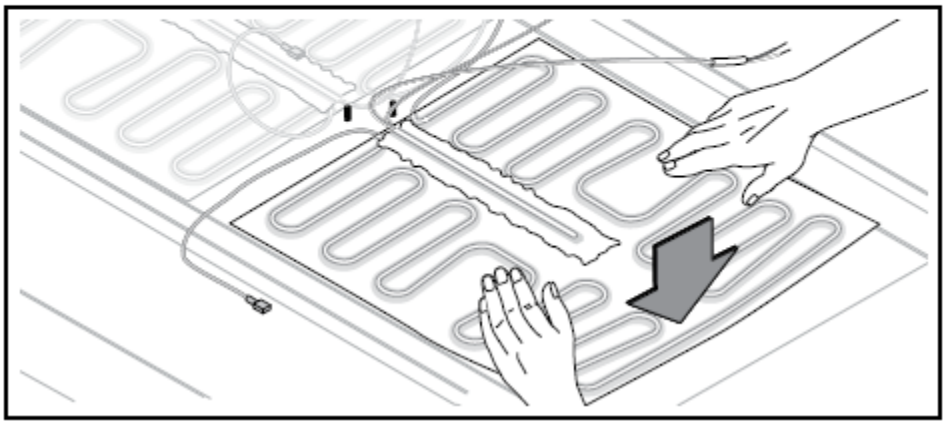



EX1005: 8.



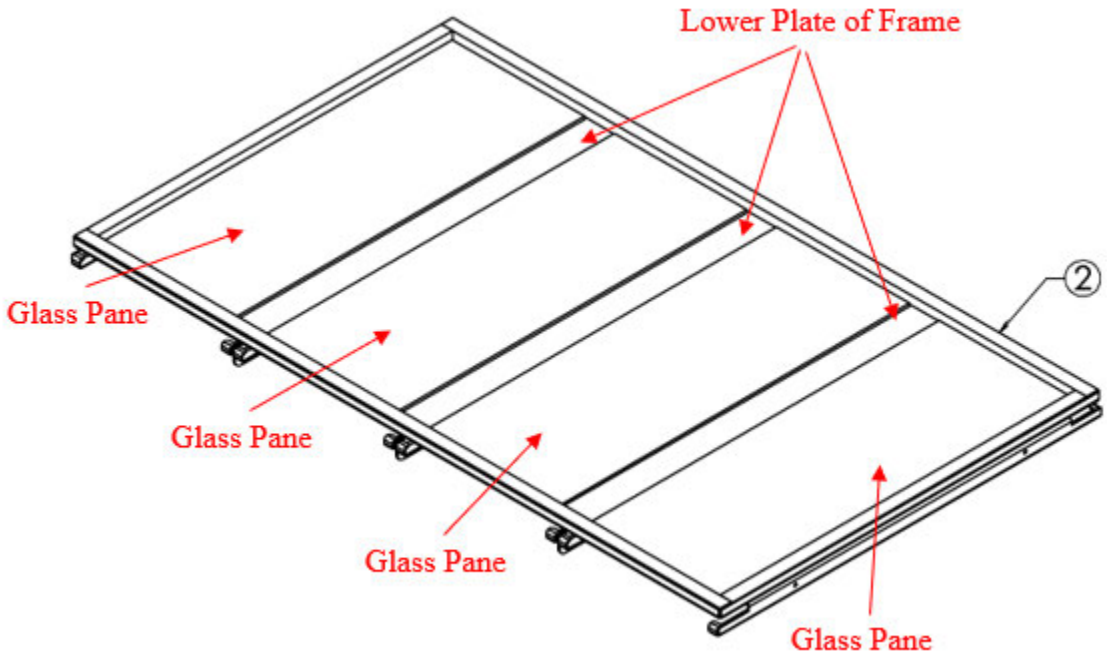

EX1007: 53.

14. Peel the adhesive tape cover off the replacement Heat Element and press in place on the heat sink, ensuring all air bubbles are smoothed out.

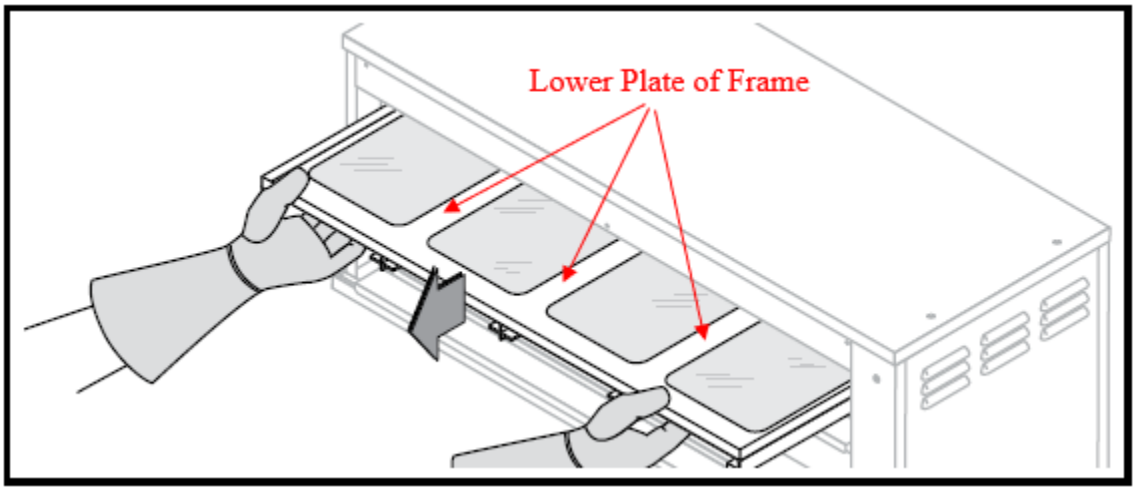


EX1008: 23.

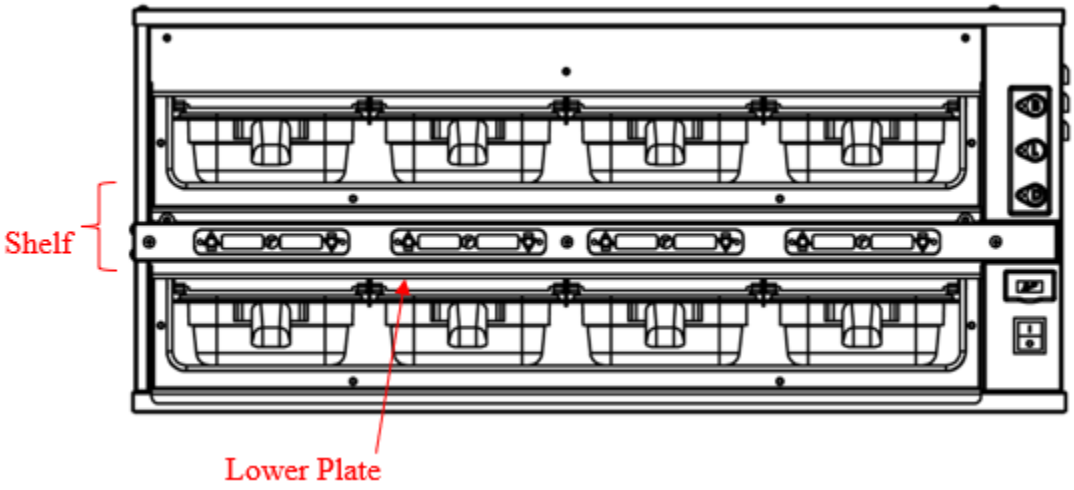
The shelf comprises a glass support frame including a flat sheet metal plate with IR window cutouts. EX1005: 14, 19-20; EX1003: ¶313. The sheet metal plate spans the shelf's width/depth, forms the shelf's bottom surface, carries the glass panes, and supports the lid shelves. EX1003: ¶313.



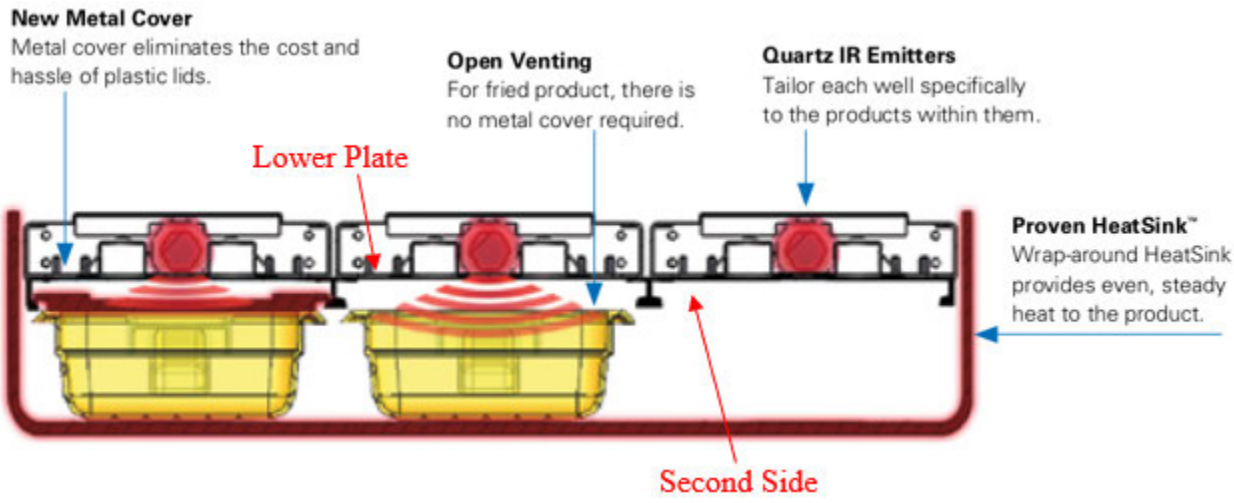

EX1005: 19.




EX1008: 25.



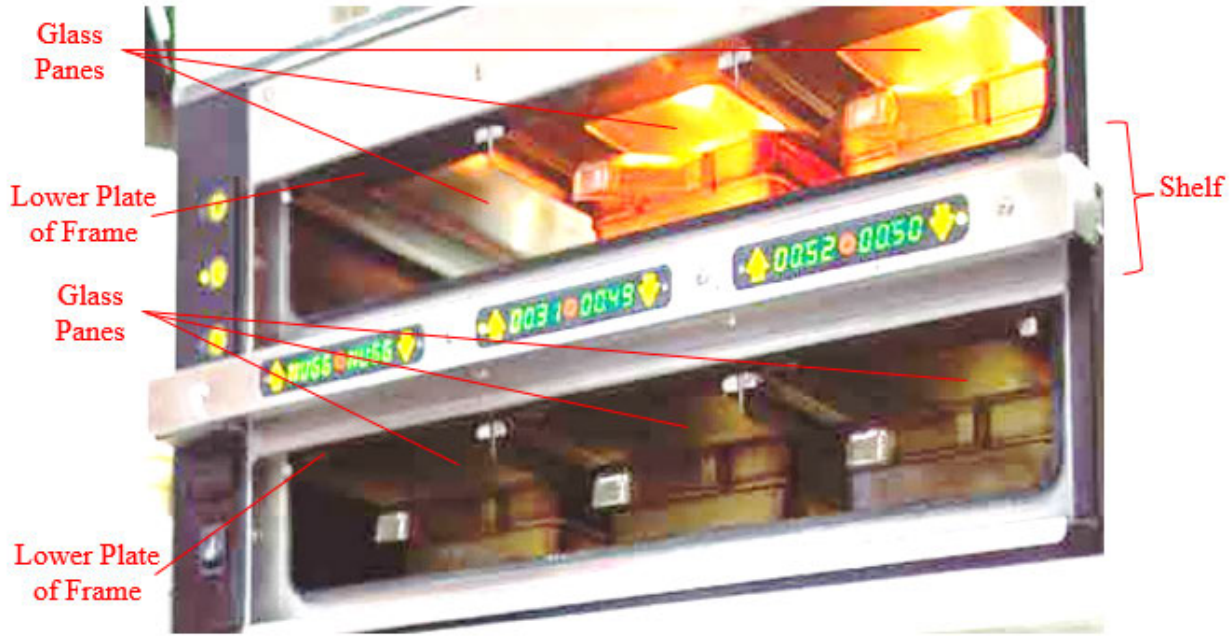

EX1005: 8.



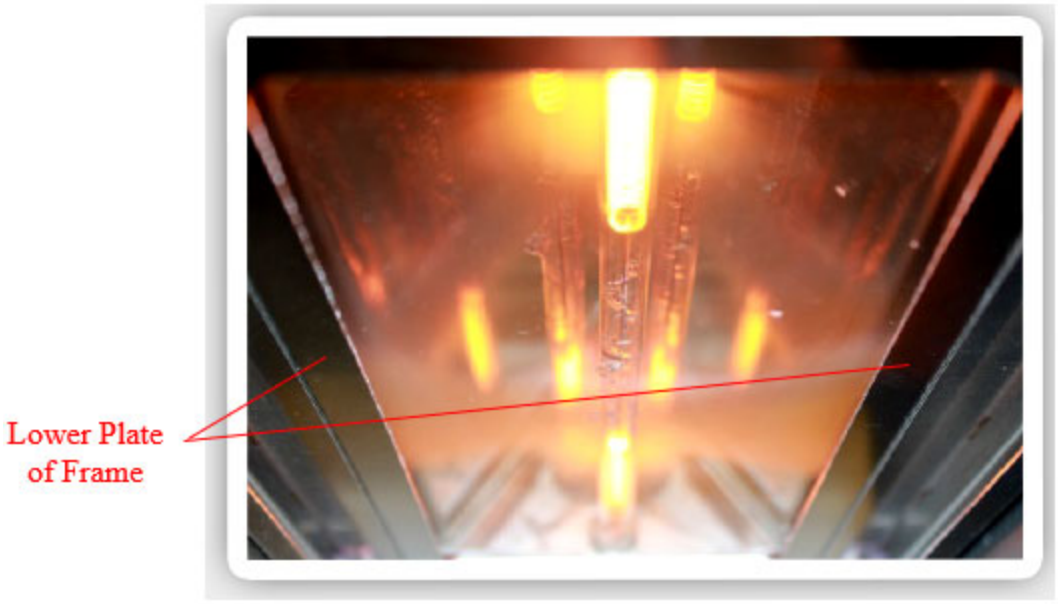

EX1007: 53.




EX1007: 32.



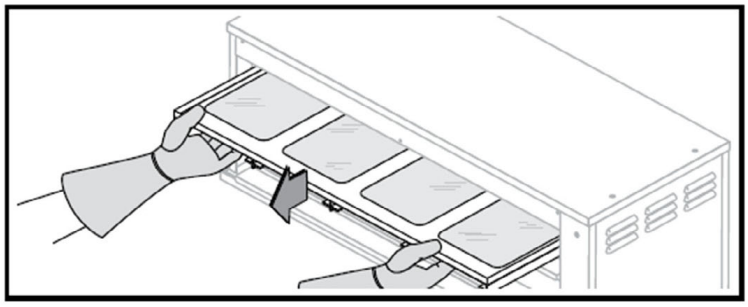

EX1007: 36.




EX1007: 11.

The sheet metal plate is thermally conductive. EX1008: 25, 27; EX1003: ¶314.

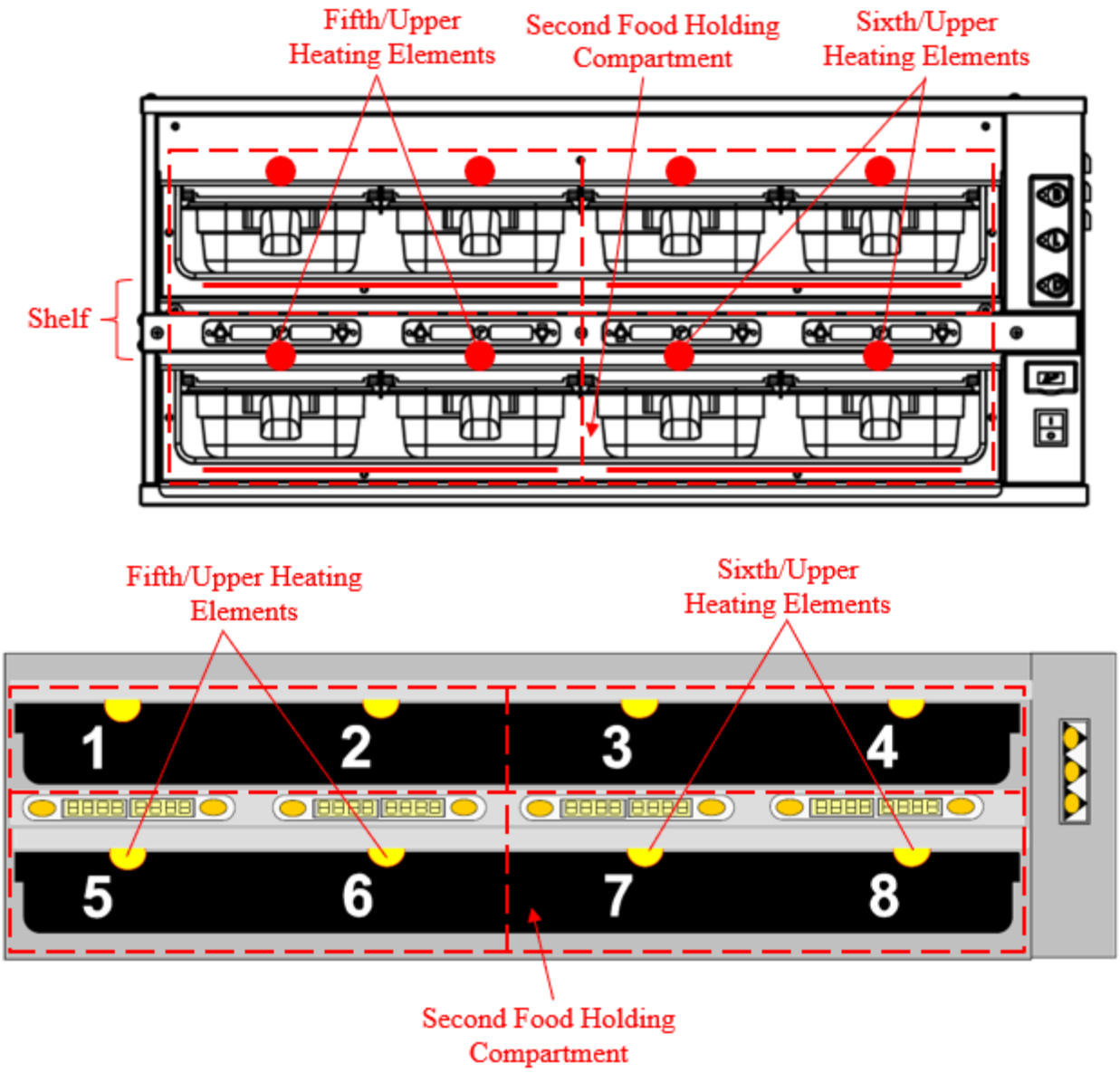
NOTE: Make sure the glass has cooled off sufficiently to avoid burns to bare skin. Use gloves if necessary.



EX1008: 27.

Moreover, it would have been obvious to make the plate from stainless steel, a thermally conductive material, for durability, cleanability, and rust resistance, with reasonable expectation of success (IRHS's existing stainless steel construction). EX1005: 13; EX1006: 1; EX1007: 53, 58; EX1003: ¶315.

The shelf includes IR bulbs as fifth and sixth heating elements for heating zones of the second/lower compartment. Section IV(B)(1.d.2/1.e.2); EX1003: ¶316.




EX1005: 8, 25.

**21.j.2**

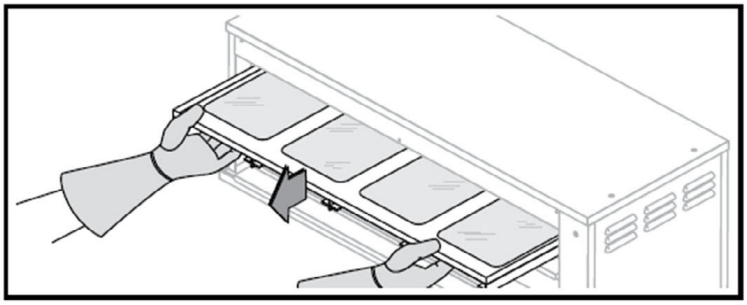
The shelf's IR bulbs (fifth and sixth heating elements) are between the upper and lower plates. EX1003: ¶¶317-318.

## EMITTERS (IR BULBS)

The Emitters heat the top of each well. The quantity varies (depending on model) and are held in place by two Emitter Sockets at the top of each heating well.

5. Slide the IR glass frame assembly out of the liner deck assembly below the Emitter to be replaced.

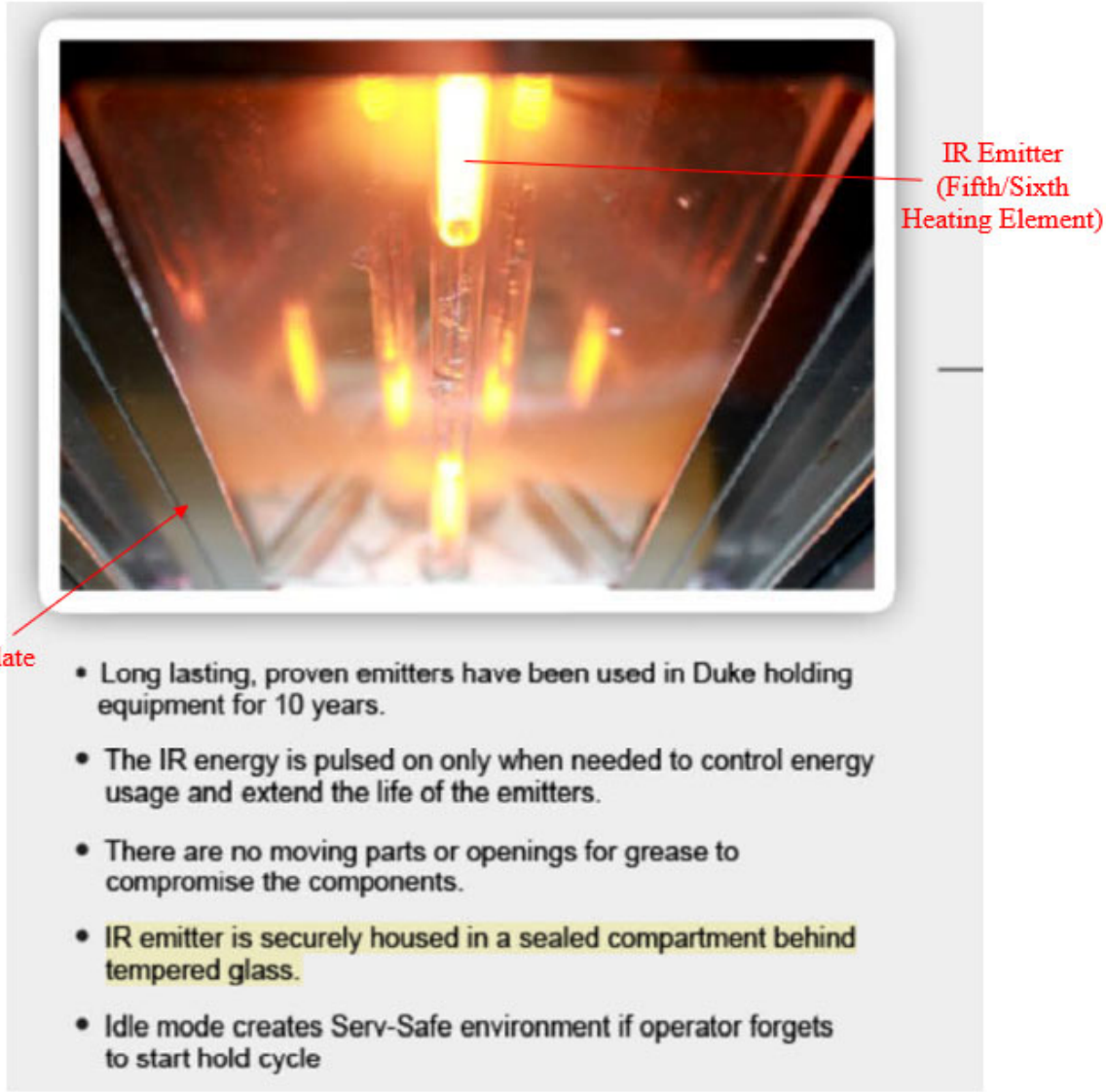
**NOTE: Make sure the glass has cooled off sufficiently to avoid burns to bare skin. Use gloves if necessary.**



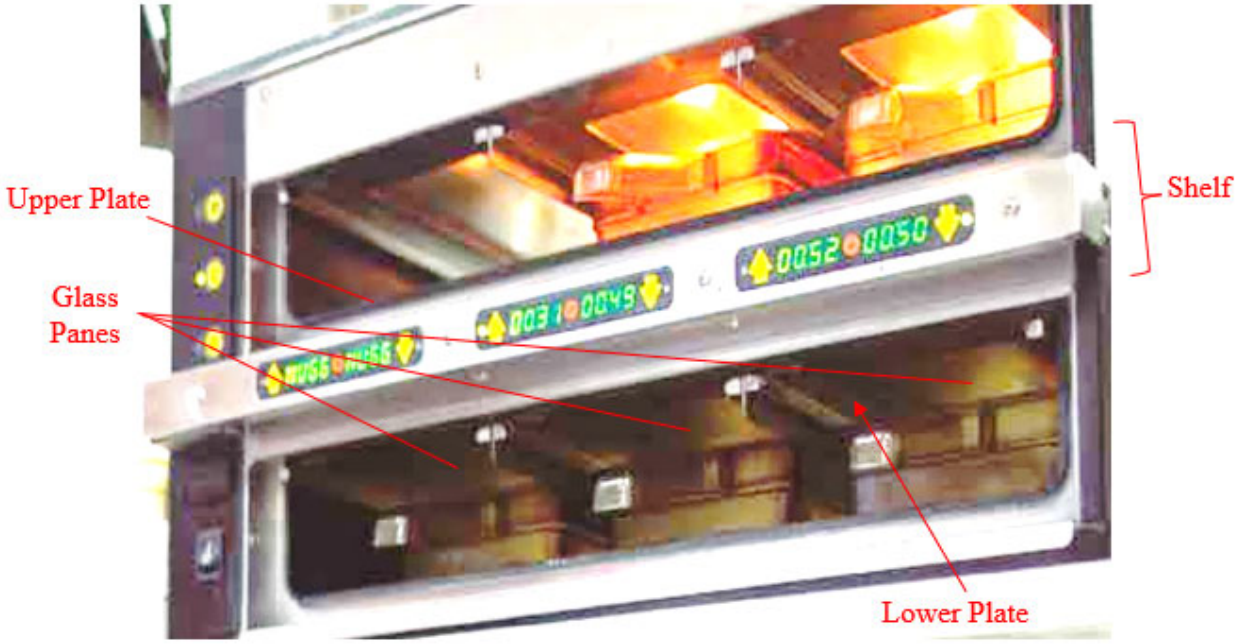
6. The Emitter Sockets are spring-loaded. Push the Emitter towards the rear socket until the Emitter is free from the front socket and carefully remove.

EX1008: 27.

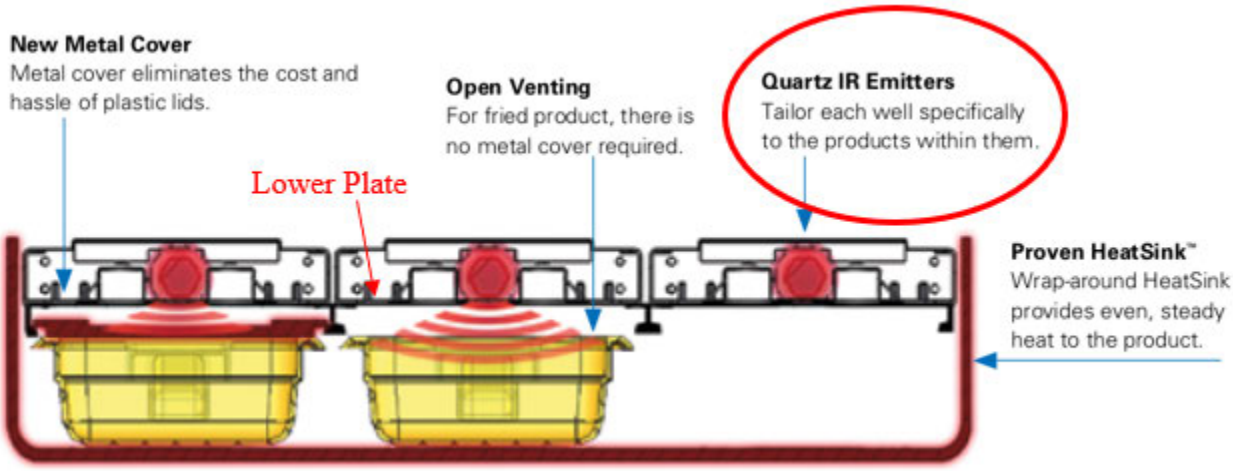
The IR bulbs are between the HeatSink (upper plate) and the glass support frame's sheet metal plate. EX1003: ¶319.


IR Emitter
(Fifth/Sixth
Heating Element)
Lower Plate
• Long lasting, proven emitters have been used in Duke holding equipment for 10 years.
• The IR energy is pulsed on only when needed to control energy usage and extend the life of the emitters.
• There are no moving parts or openings for grease to compromise the components.
• IR emitter is securely housed in a sealed compartment behind tempered glass.
• Idle mode creates Serv-Safe environment if operator forgets to start hold cycle

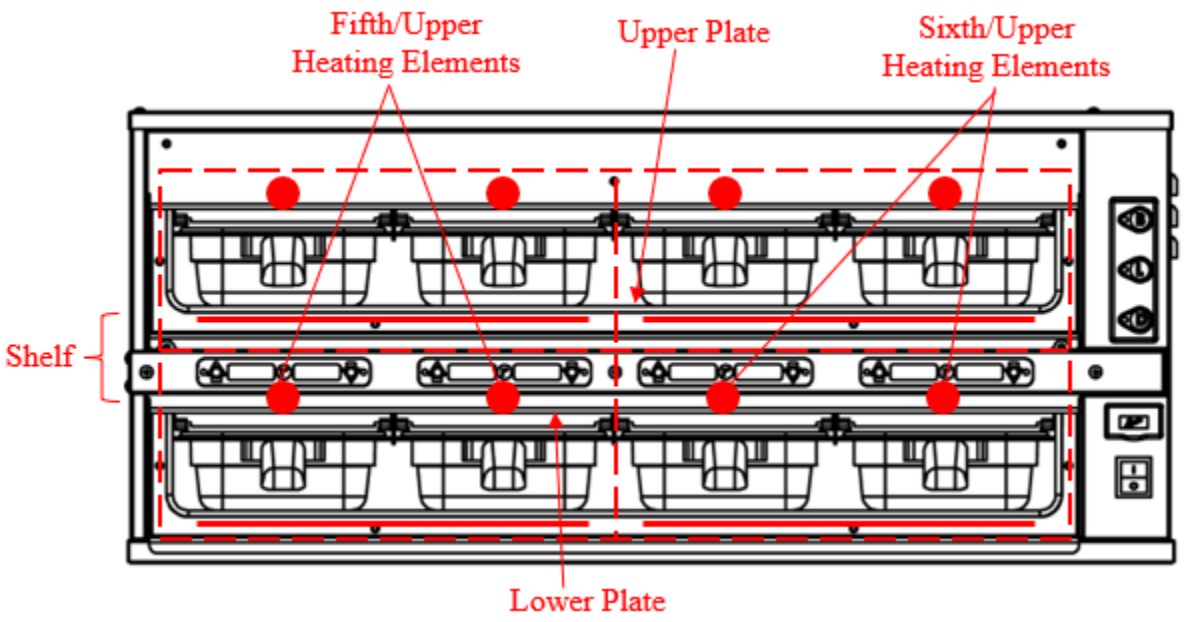
EX1007: 11.




EX1007: 36.



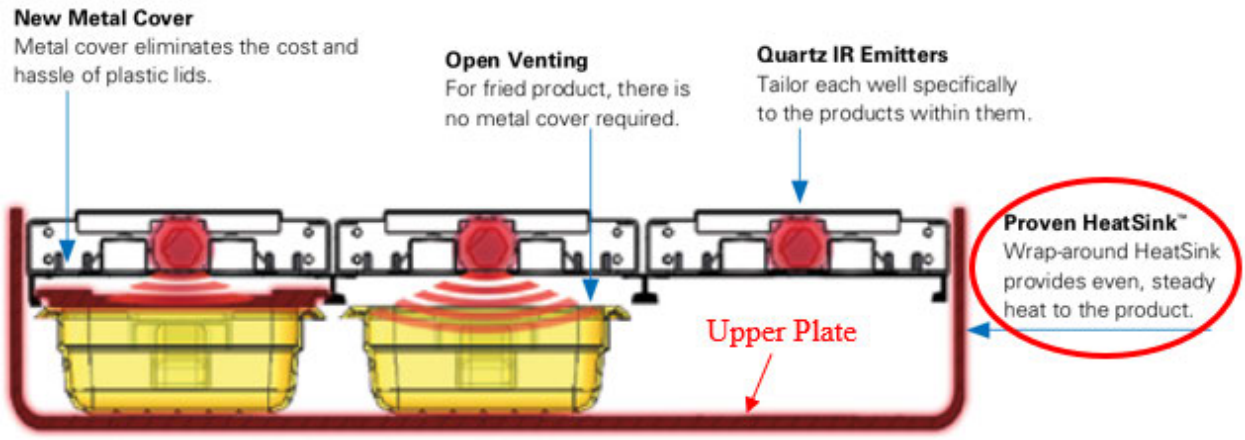

EX1007: 53.




EX1005: 8.

**21.j.3**

The second and fourth lower heating elements are part of the HeatSink for the upper/first compartment heating the pans from underneath. EX1007: 51; EX1003: ¶¶320-321.

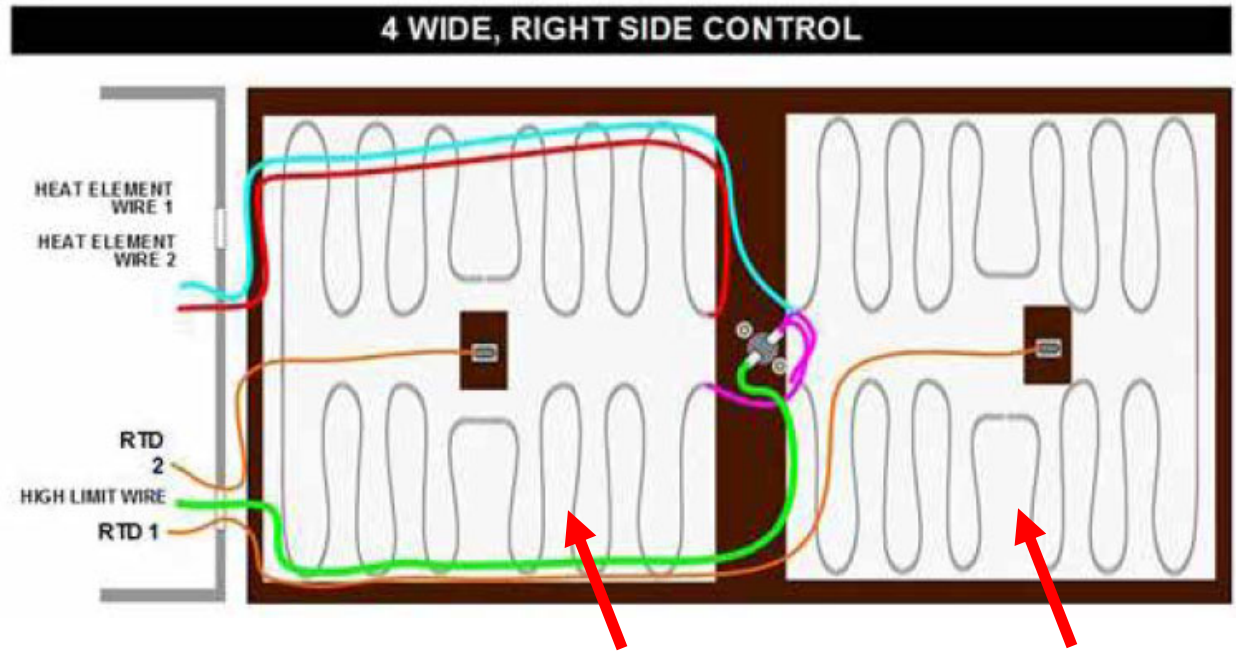



EX1007: 53.

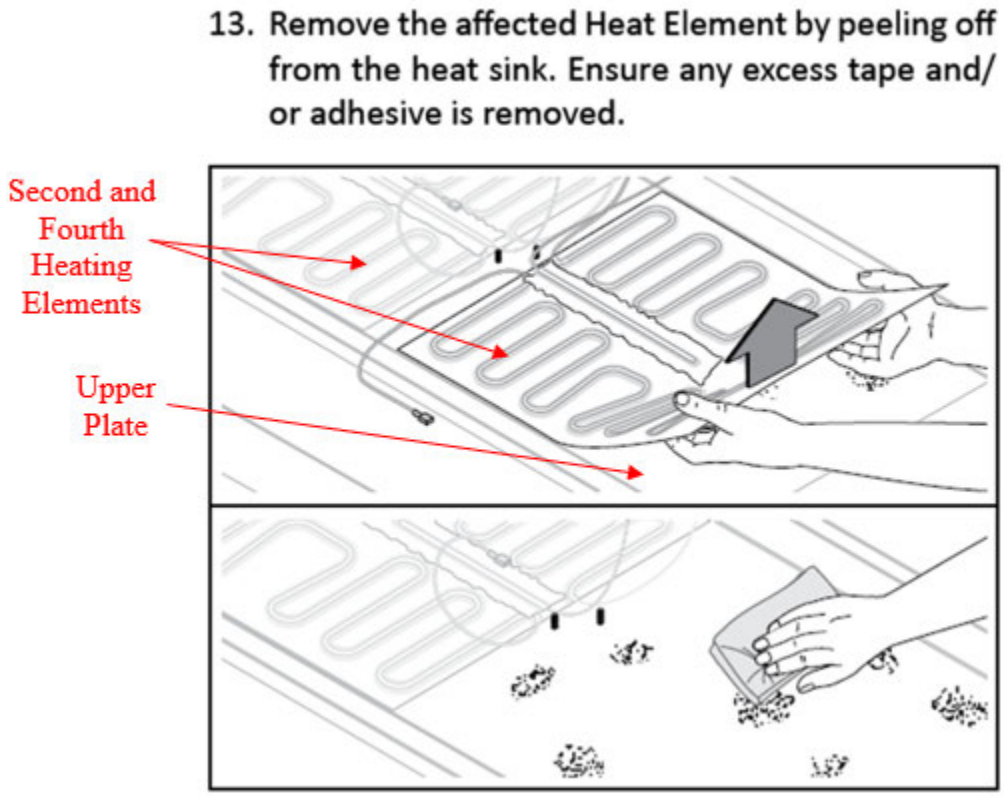
## HEAT ELEMENTS

The Heat Elements provide the heating required to keep the heating wells at proper operating temperatures. The quantity varies depending on model and are affixed to the bottom of each Heat Sink.

EX1008: 21.



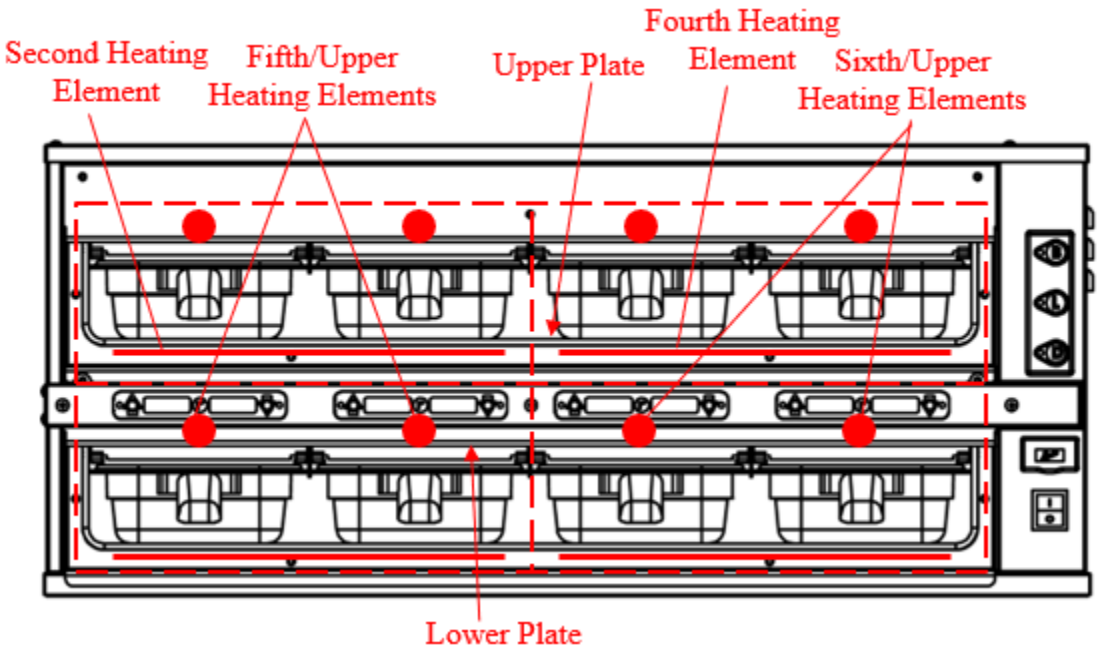

EX1008: 58.



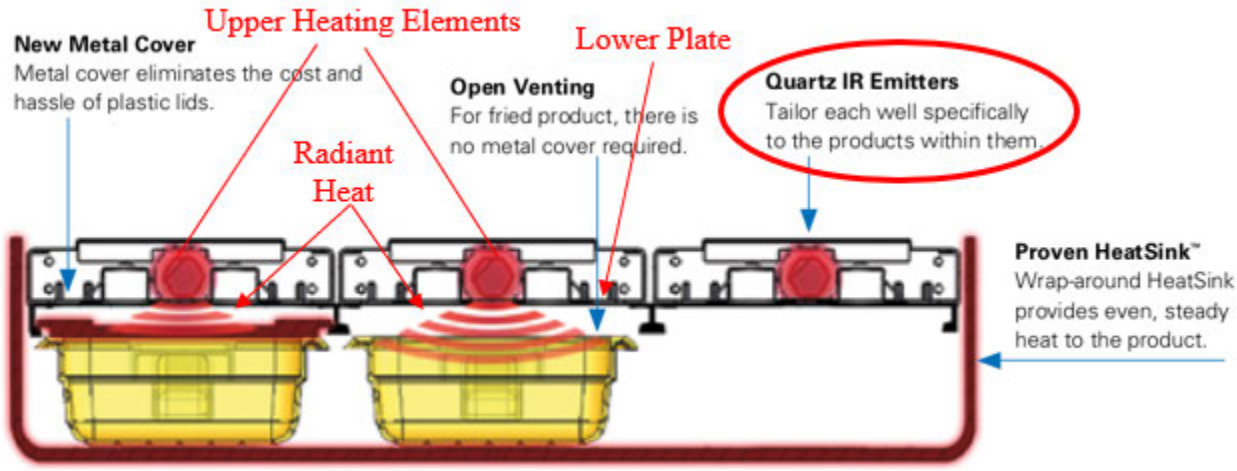

EX1008: 22.

The POSA understands the second and fourth lower heating elements heat the HeatSink plate and thus are in thermal communication with the upper plate. EX1007: 51, 53; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1003: ¶322.

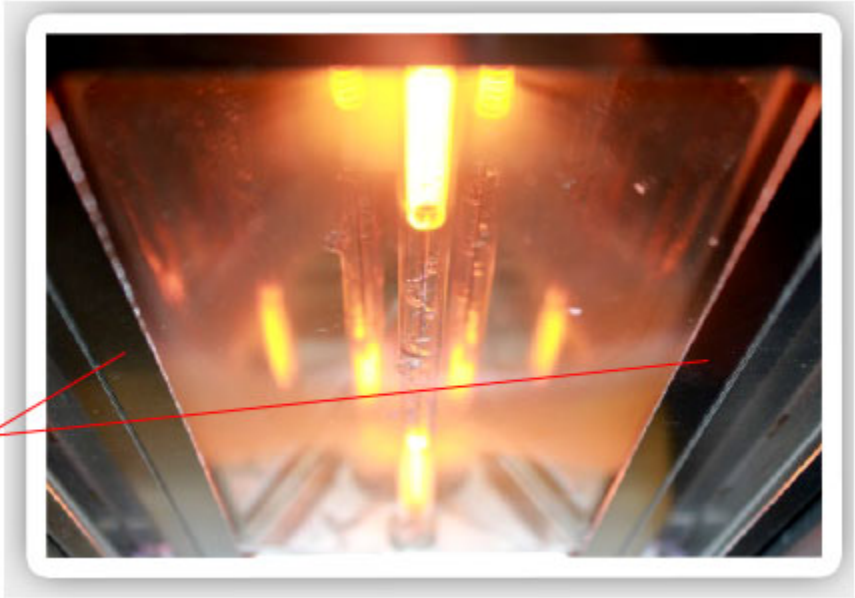
The lower plate (sheet metal plate of glass support frame) is directly below the shelf's IR heating elements (fifth and sixth heating elements). EX1003: ¶323. These elements are in thermal communication with the lower plate because they heat it. EX1003: ¶¶324-325.




EX1005: 8.

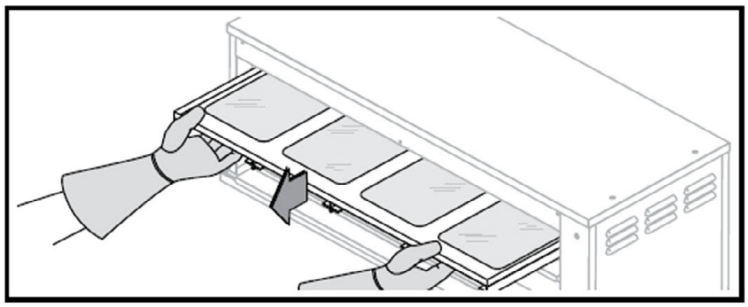



EX1007: 53.




EX1007: 11.

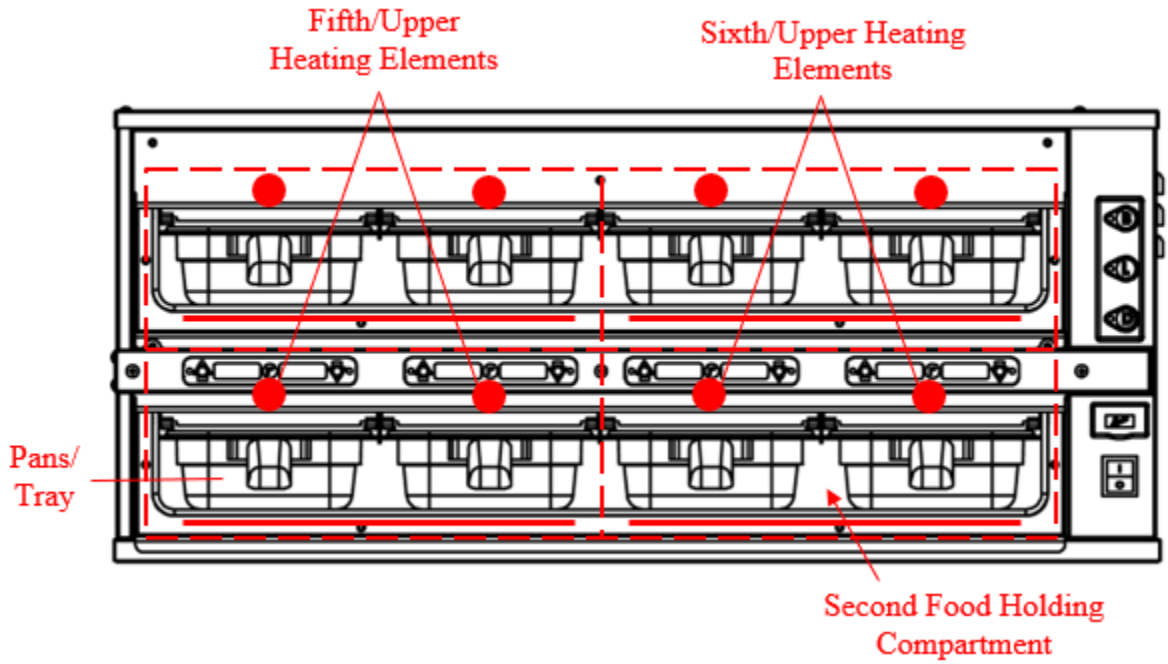
NOTE: Make sure the glass has cooled off sufficiently to avoid burns to bare skin. Use gloves if necessary.



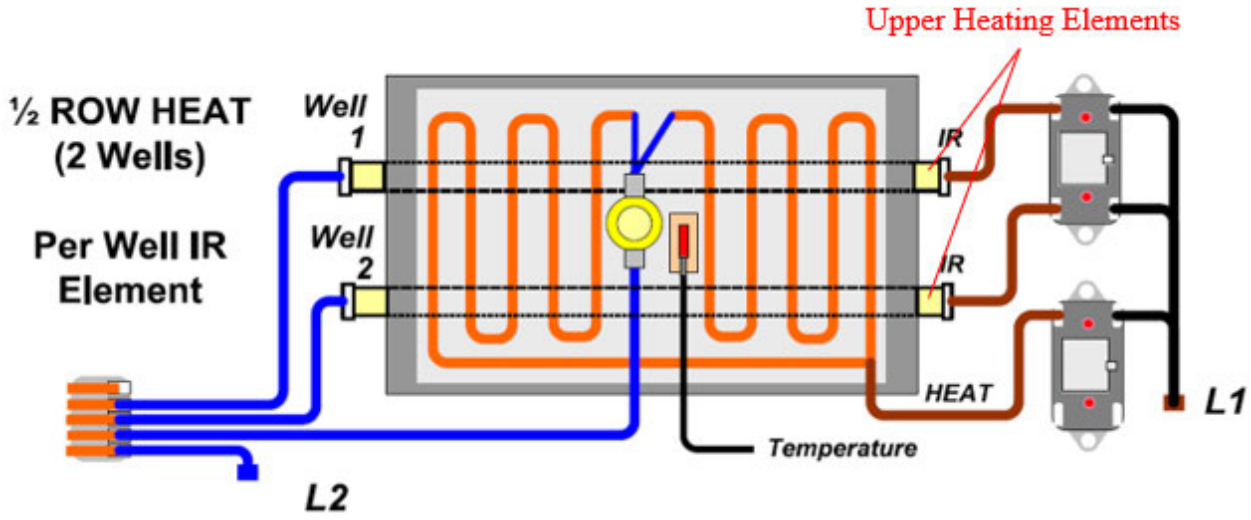
EX1008: 25.

**21.j.4**

The fifth and sixth heating elements (IR bulbs) provide radiant heat to the second/lower compartment. EX1005: 20; EX1007: 51; Section IV(B)(1.d.2/1.e.2); EX1003: ¶¶326-329.

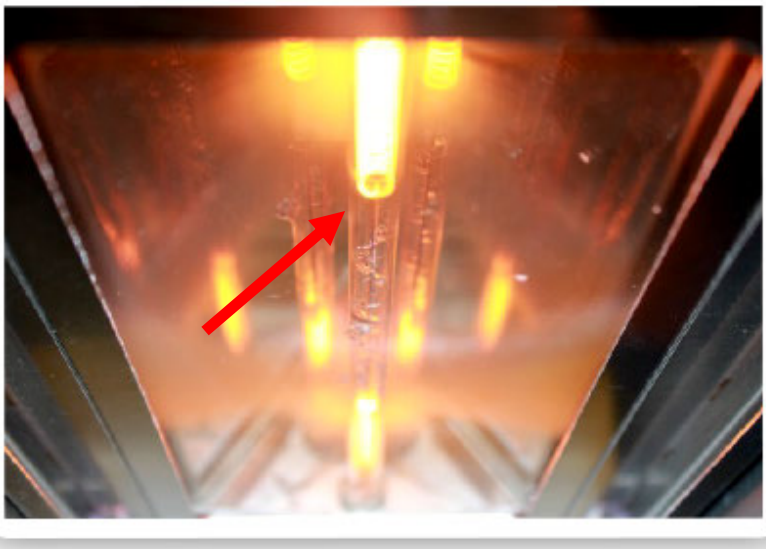



EX1005: 8.




EX1005: 25.

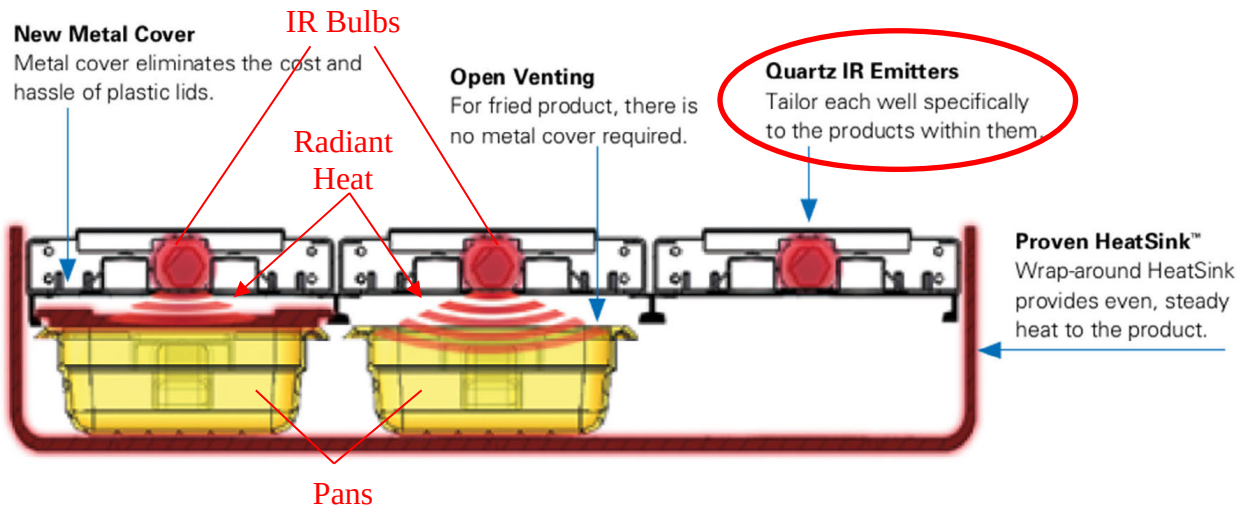
## Duke Sealed IR



- Long lasting, proven emitters have been used in Duke holding equipment for 10 years.



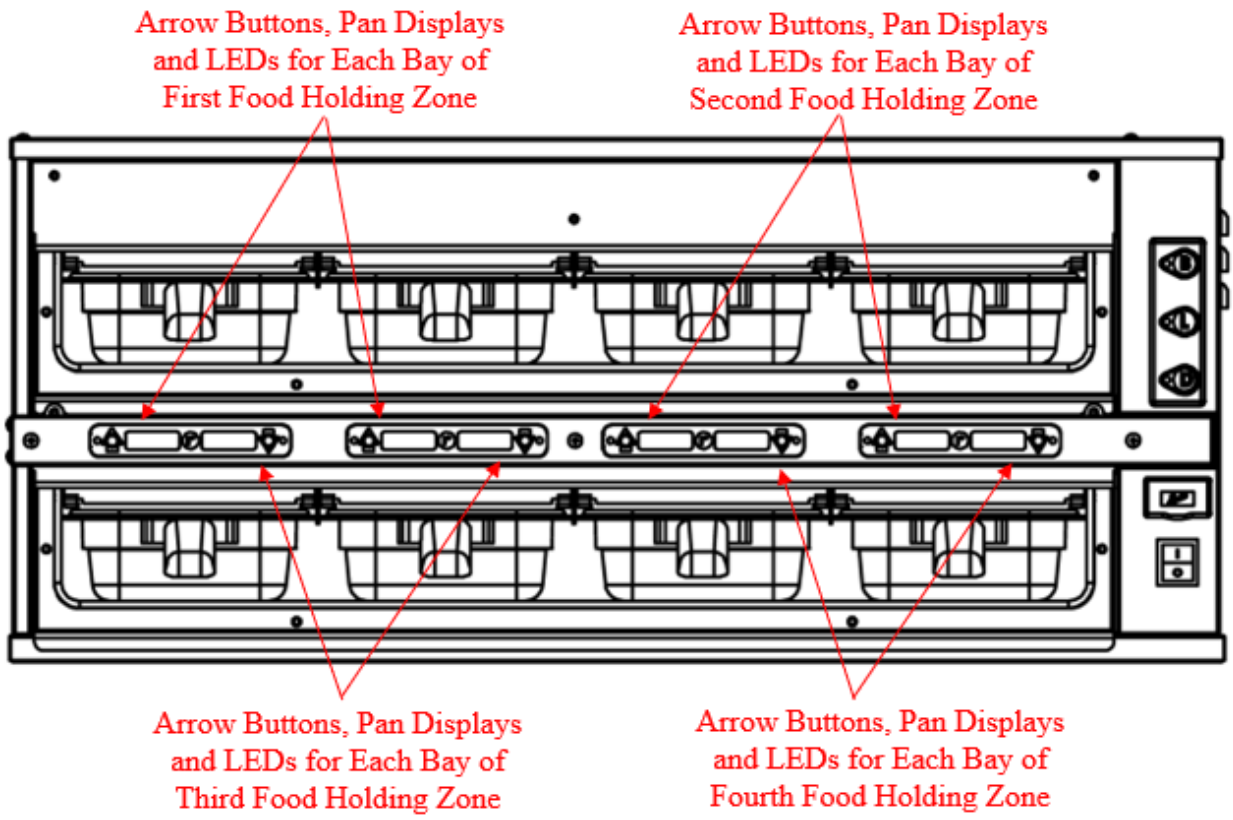
EX1007: 11, 36.




EX1007: 53.

### E. Claim 3

The front timer bar/bezel has dedicated displays (LEDs and pan displays) for each bay. EX1003: ¶¶188-190. Each arrow button points to a corresponding bay for an LED and pan display. EX1005: 16. EX1003: ¶191.



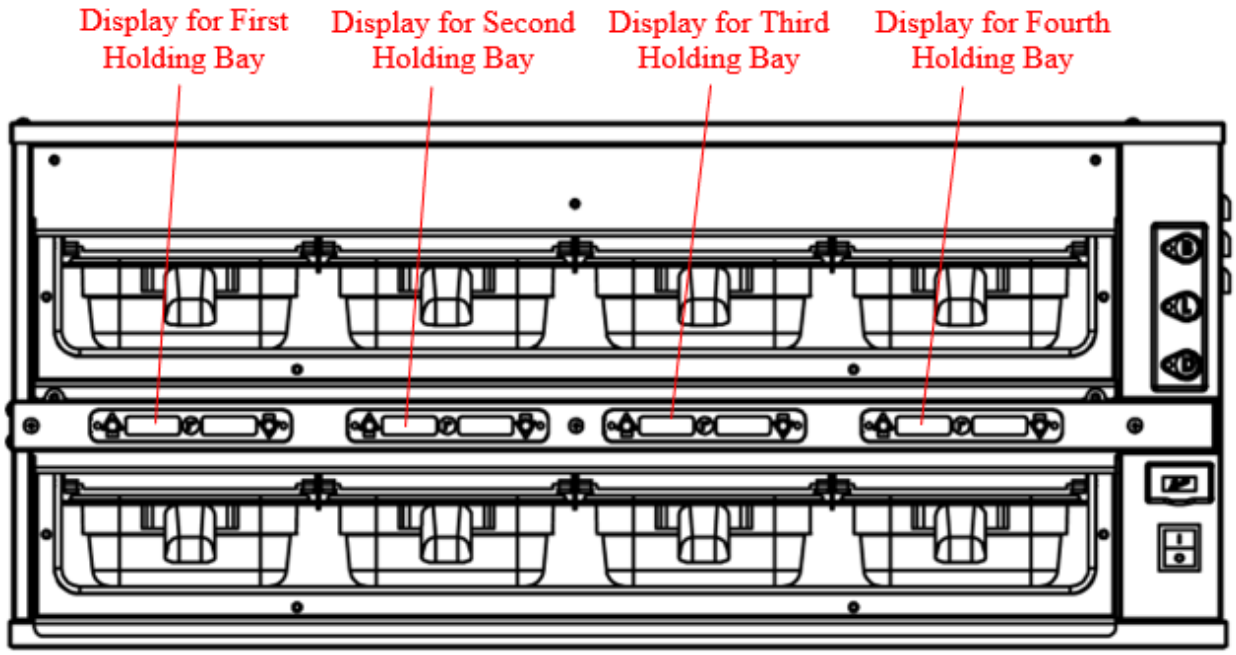

EX1005: 8.

**OPERATION – TIMER BAR FUNCTIONALITY**

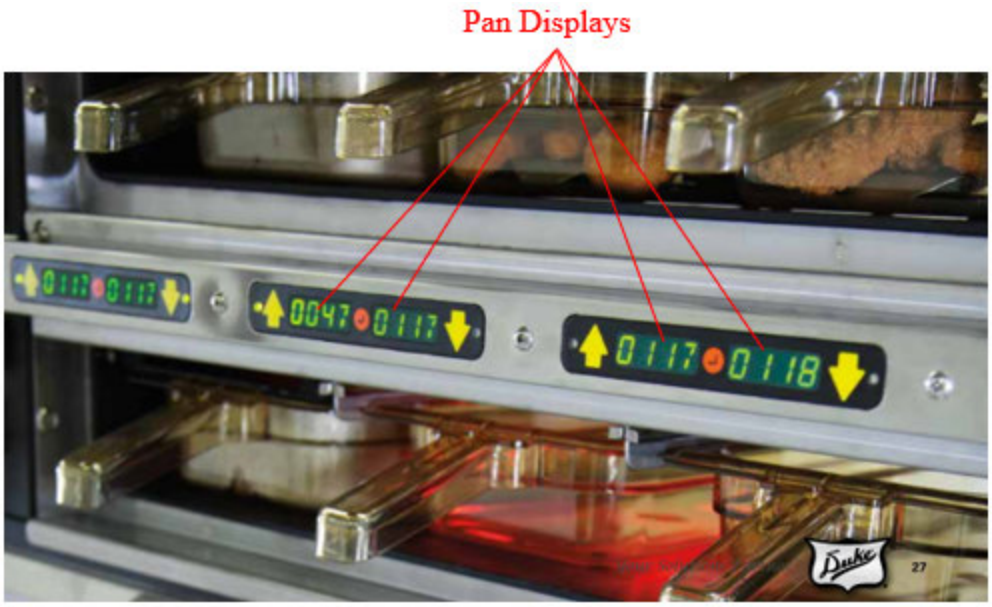


2. Arrow Buttons
   a. Used for Starting / Stopping / Resetting Timer.
   b. Used to access MENU MODE.
   c. Indicate which pan the adjacent Status LED and Pan Display are linked to.
3. Pan Display
   a. Displays Product Name and Hold Time Remaining (alternates between the two when Timer is active).
4. Enter Button
   a. Used to access MENU MODE.

EX1005: 16.

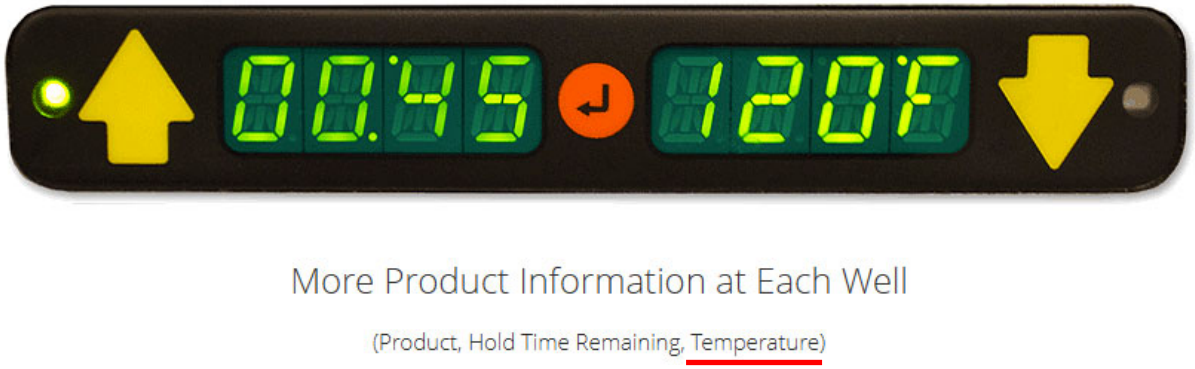



EX1005: 8.




EX1007: 52.

Each pan display displays its bay's temperature setting. EX1006: 1; EX1005: 16, 17; EX1003: ¶¶192-193.




EX1007: 10-11.

**F. Claims 4/15/23**

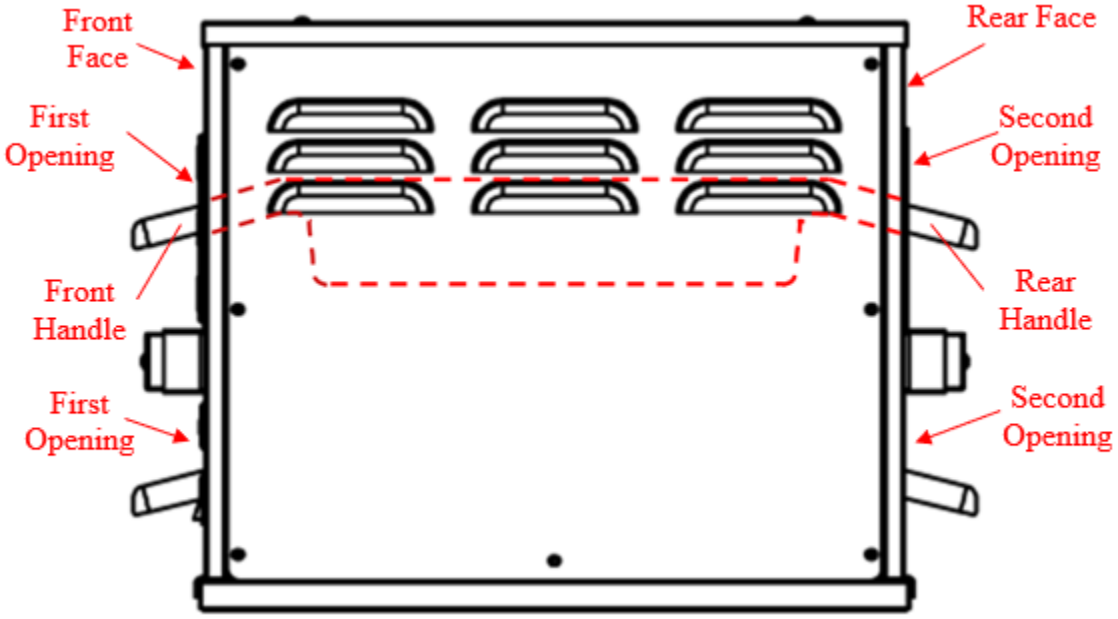
**4.a.1/15.a.1/23.a.1**

The POSA understands the IRHS's front and rear are generally mirror images. EX1008: 12; EX1003: ¶¶194-196.

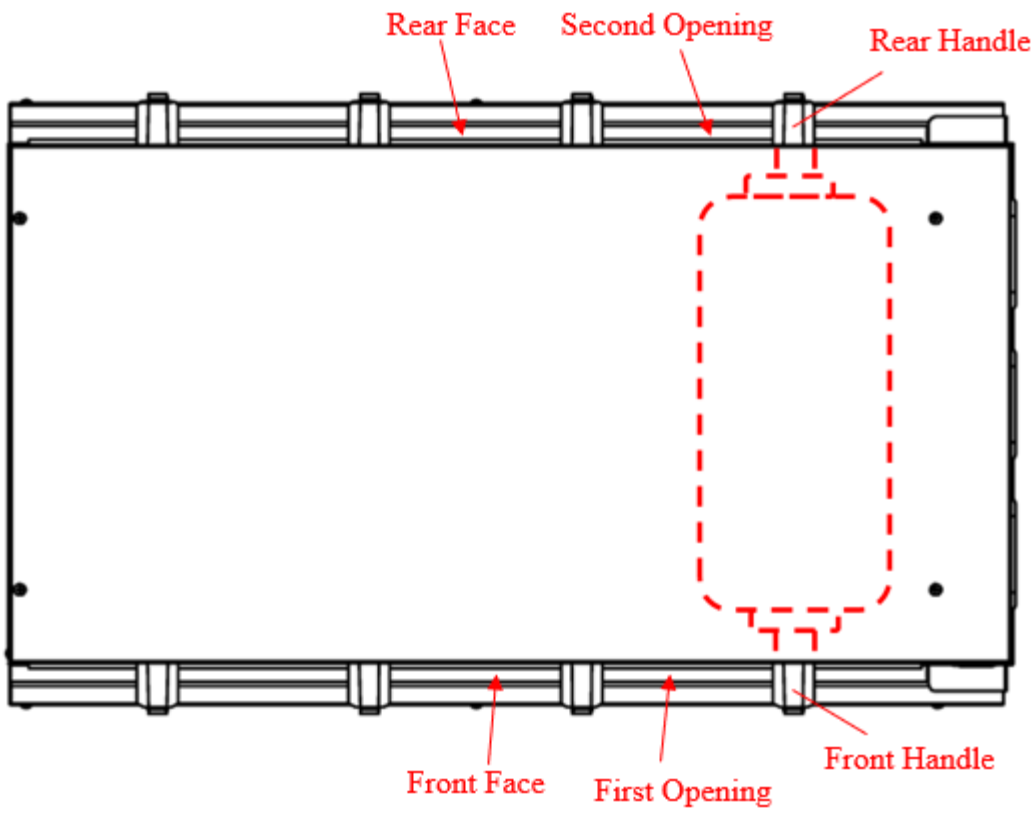
The pans' handles extend out the front and rear faces. EX1003: ¶202.




EX1007: 58.




EX1005: 8.




EX1005: 8.

The chassis has a second opening along the rear face that is uncovered (like the first opening) through which the handles extend. EX1003: ¶¶203-204. The pan handles extend forward out of the first opening and rearward out of the second opening. EX1003: ¶204.

This makes IRHS24 a pass-through unit allowing front/rear access. EX1007: 67; EX1003: ¶¶200-201. The POSA would understand the second opening (rear) is uncovered similar to the first (front) opening. EX1010: Figs. 1, 6, ¶[0014]; EX1011: Figs. 1-2; EX1014: Figs. 5, 8; EX1003: ¶205.

Moreover, the IRHS Documents illustrate the front and rear faces as generally mirror images, with the front including controls on the first side panel and the rear including a power cord. EX1003: ¶¶197-199.

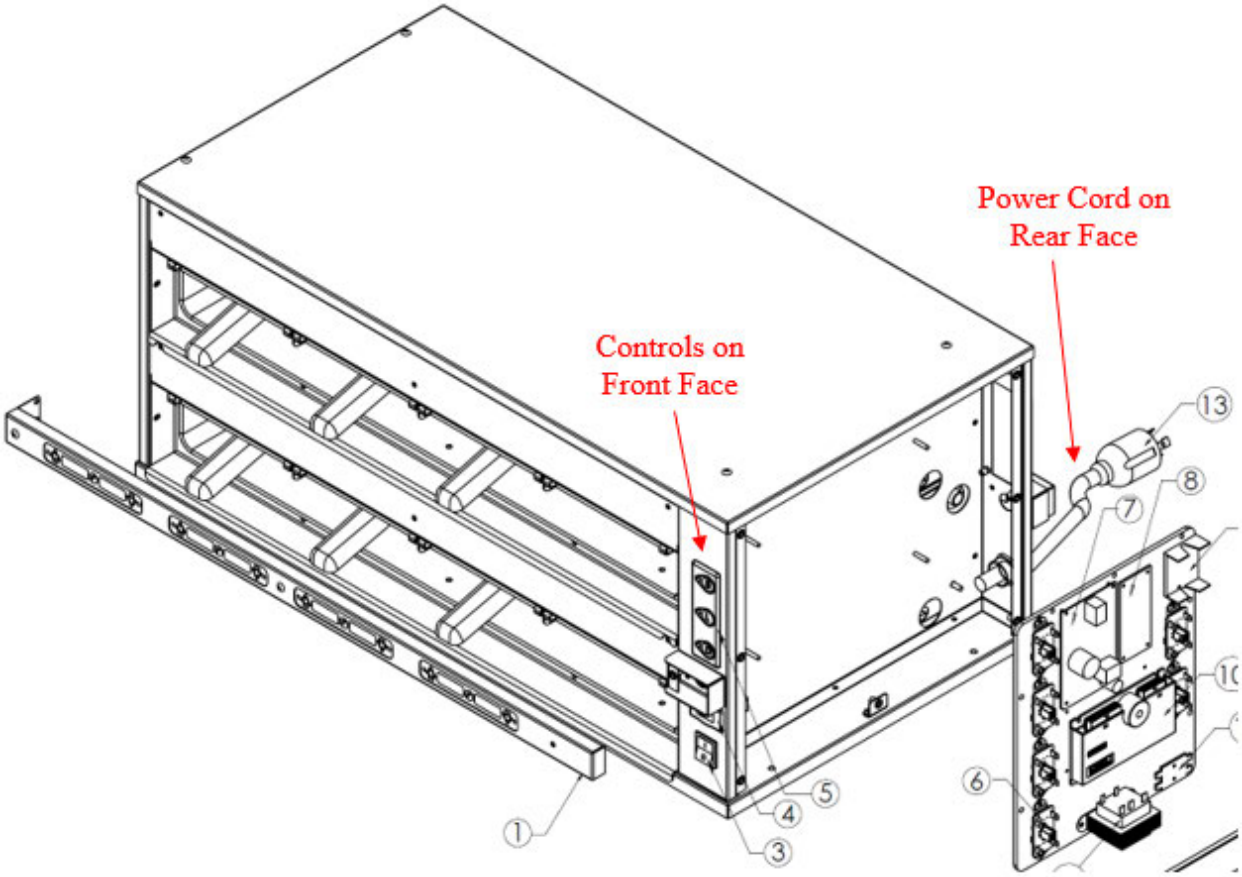








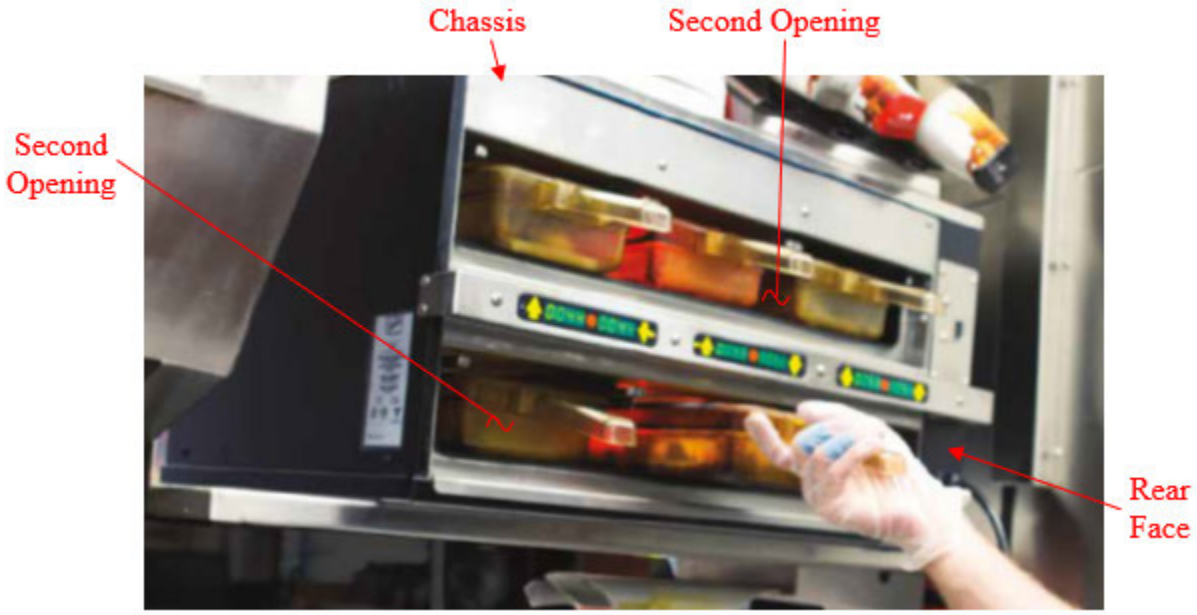
EX1007: 28, 51, 52.




EX1005: 19.

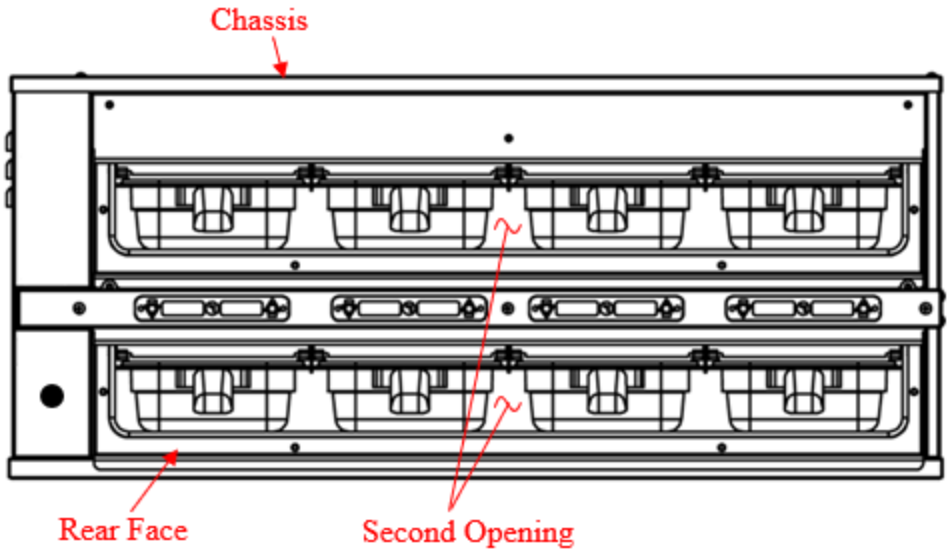
The rear face has uncovered second (rear) openings for each compartment.

EX1003: ¶205.



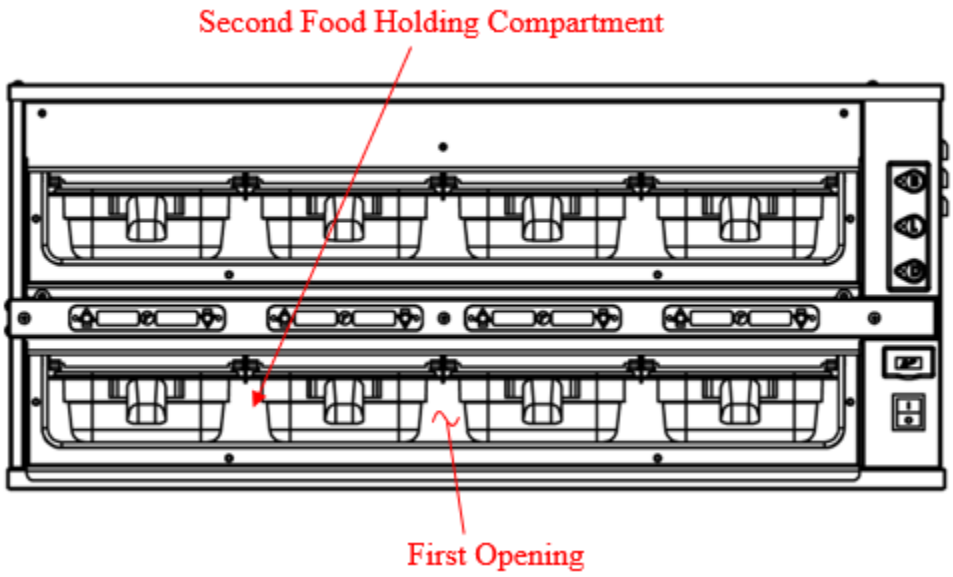

EX1007: 52.

The POSA would understand this construction applies to IRHS24, a representative rear elevation of which is provided below showing the first and second compartments each having an uncovered second opening at the chassis's rear face. EX1003: ¶¶206, 270-272, 330-332.



EX1005: 8 (modified to represent rear elevation).

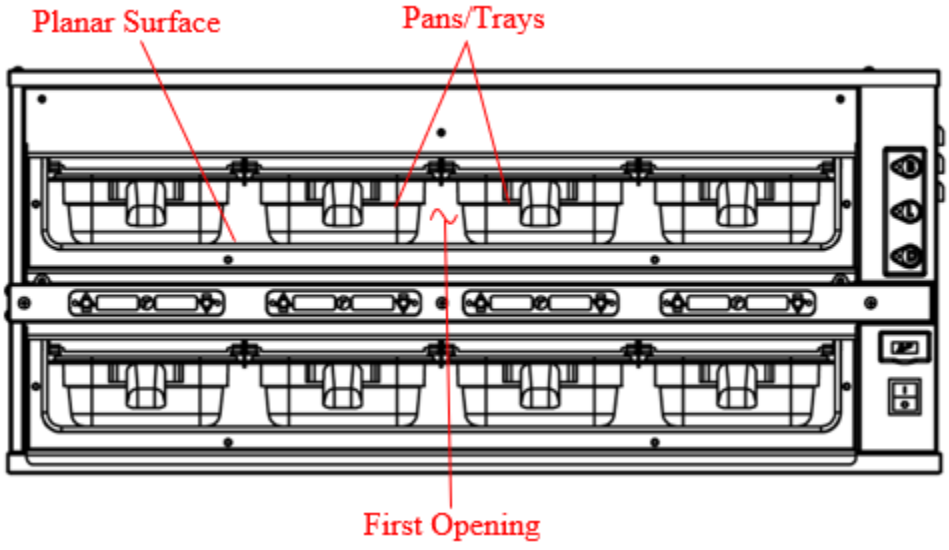
The second compartment has a first opening. EX1003: ¶206.




EX1005: 8.

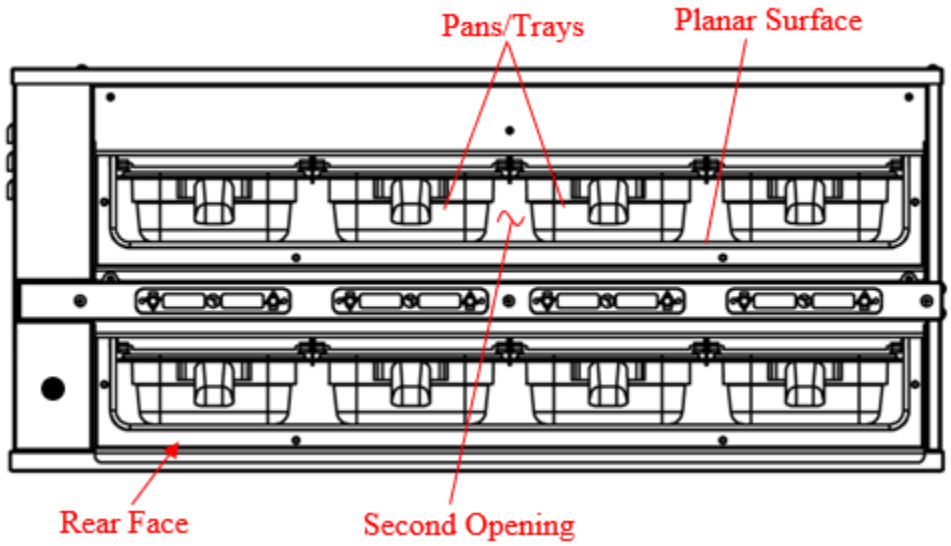
**4.a.2/15.a.2/23.a.2**

The planar bottom surface allows pans of food to be placed thereon through the first opening. Section IV(B)(1.b.2); EX1003: ¶¶207-209.

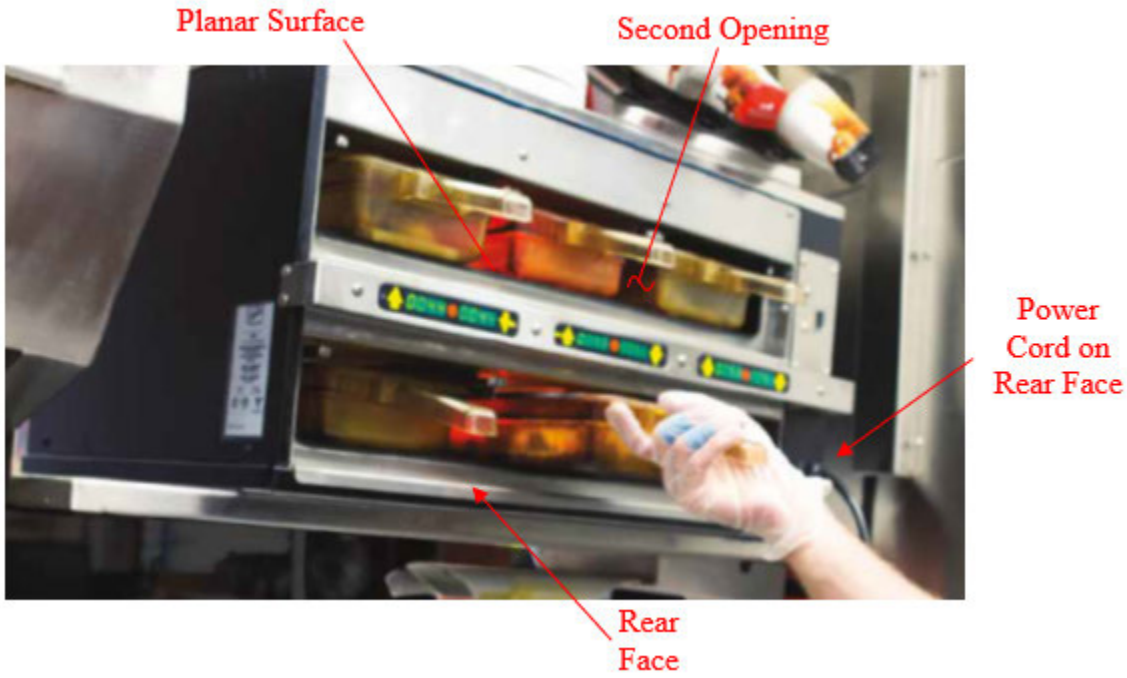


EX1005: 8.

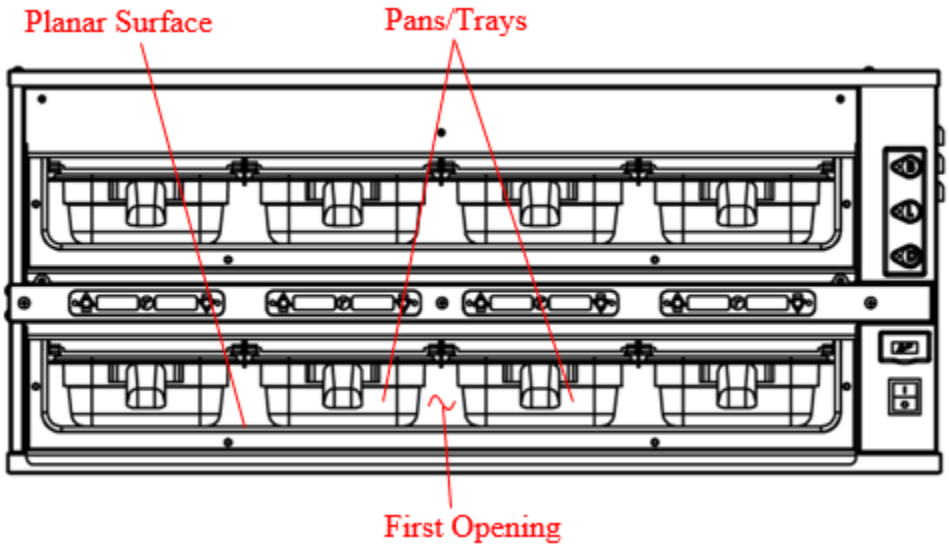
With IRHS24 being a pass-through unit, the first and second compartments' planar bottom surfaces allow the pans of food to pass through the first opening to rest on the planar bottom surface and to be removed from the planar bottom surface through the second opening. Section IV(F)(4.a.1/15.a.1/23.a.1); EX1003: ¶¶210-214, 273-274, 333-334.



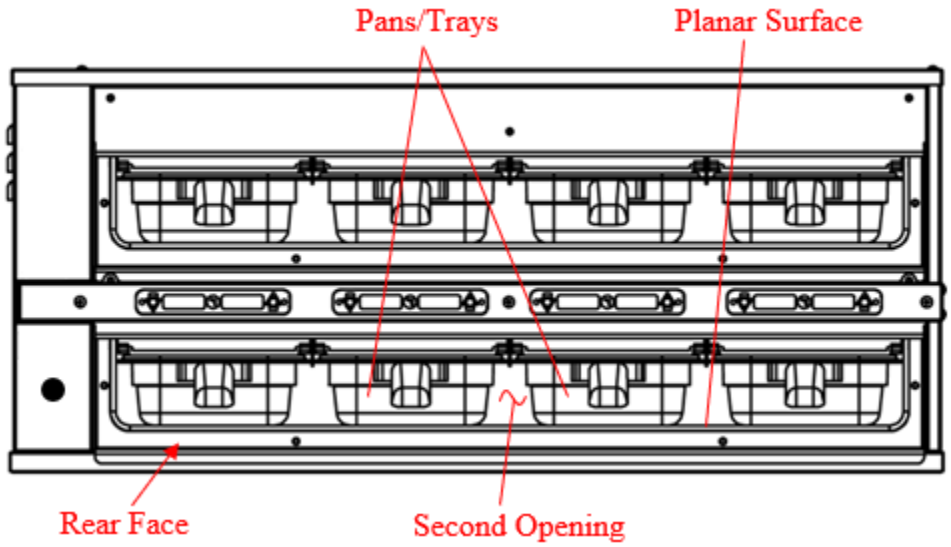

EX1005: 8 (modified to represent rear elevation).



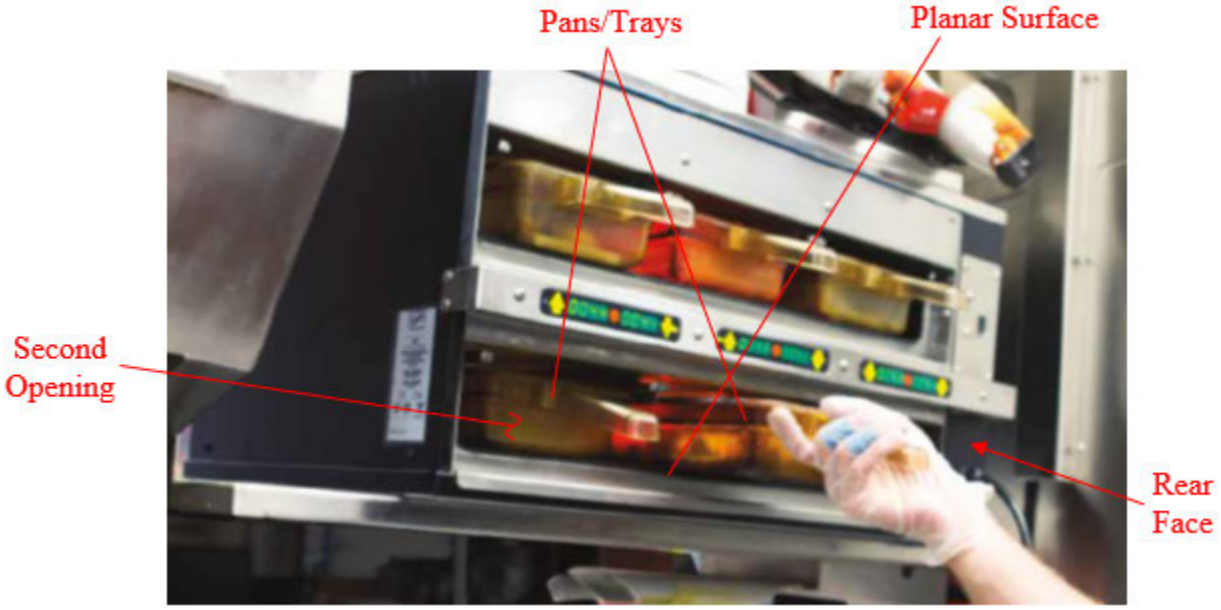

EX1007: 36, 52.




EX1005: 8.



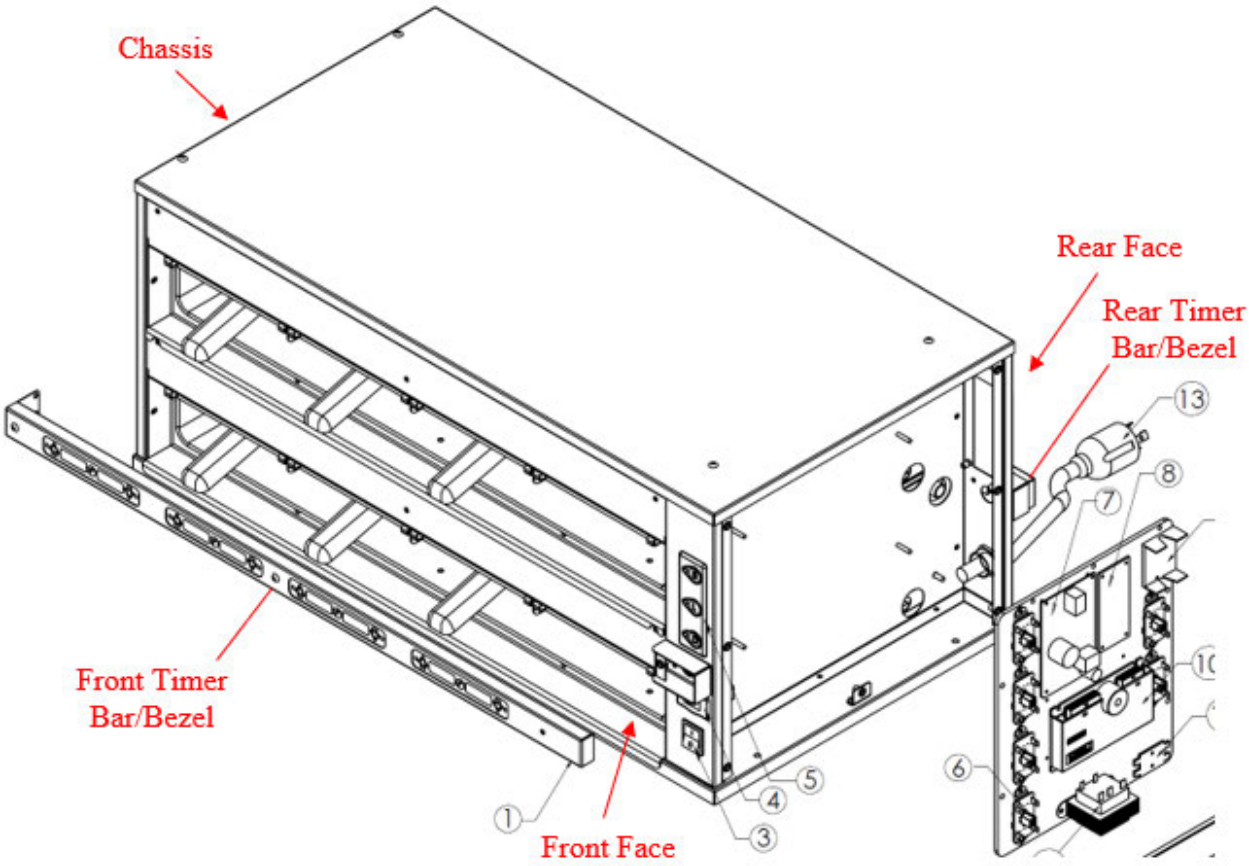

EX1005: 8 (modified to represent rear elevation).



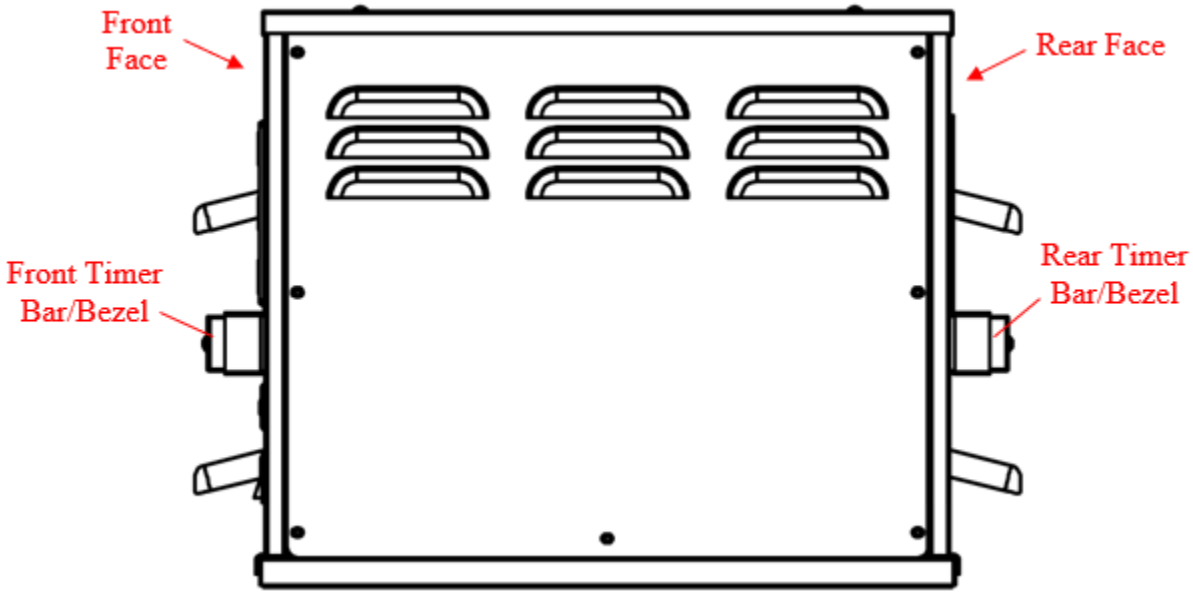

EX1007: 52.

### G. Claim 5

The front timer bar/first bezel is proximate the front face, and the rear timer bar/second bezel is proximate the rear face. EX1003: ¶¶215-218.




EX1005: 19.




EX1005: 8.







EX1007: 51, 52.

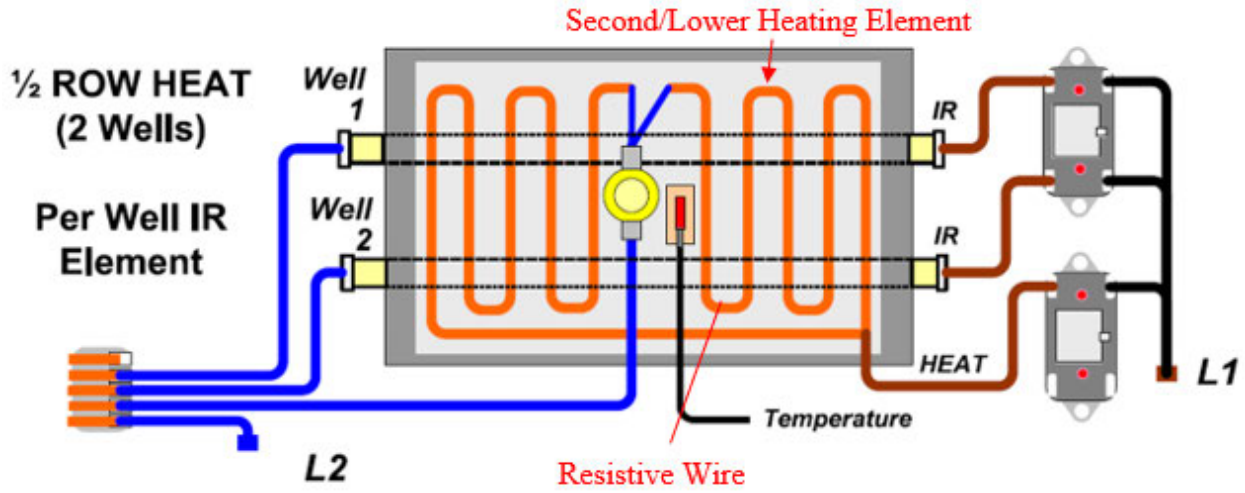
## MENU BA RS

The Menu Bars hold the Keypad Displays that control and monitor the performance of each heating well. The quantity varies (depending on model) and are located on the front and back faces of the unit.

EX1008: 12.

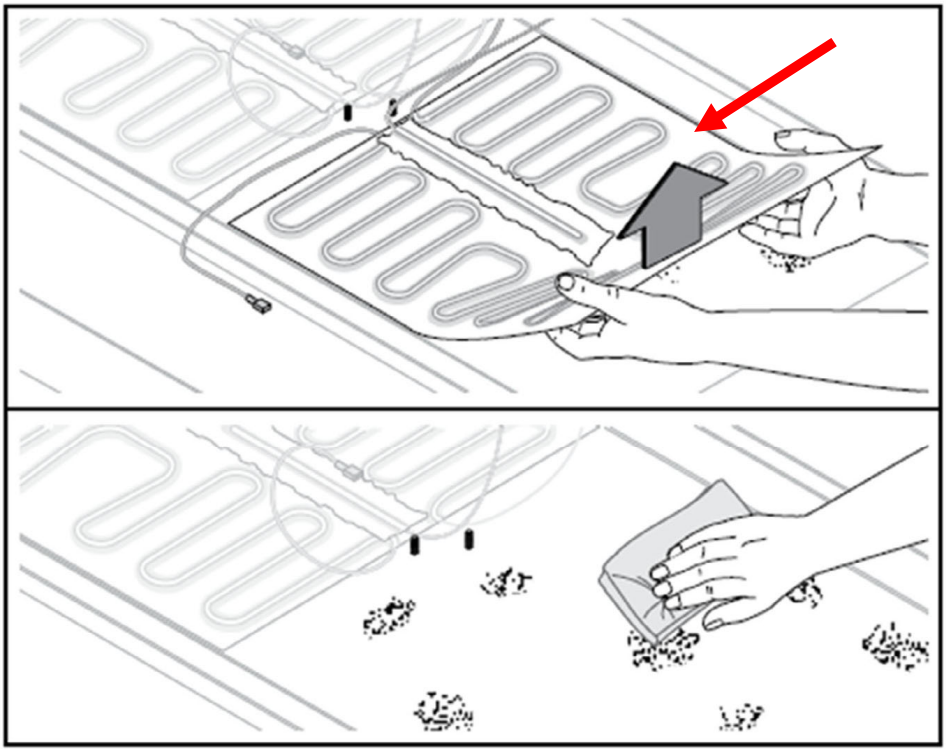
### H. Claims 6/17/25

The second/lower heating element comprises a resistive wire. EX1003: ¶¶219-220, 222-224, 275-277, 335-337.




EX1005: 25.

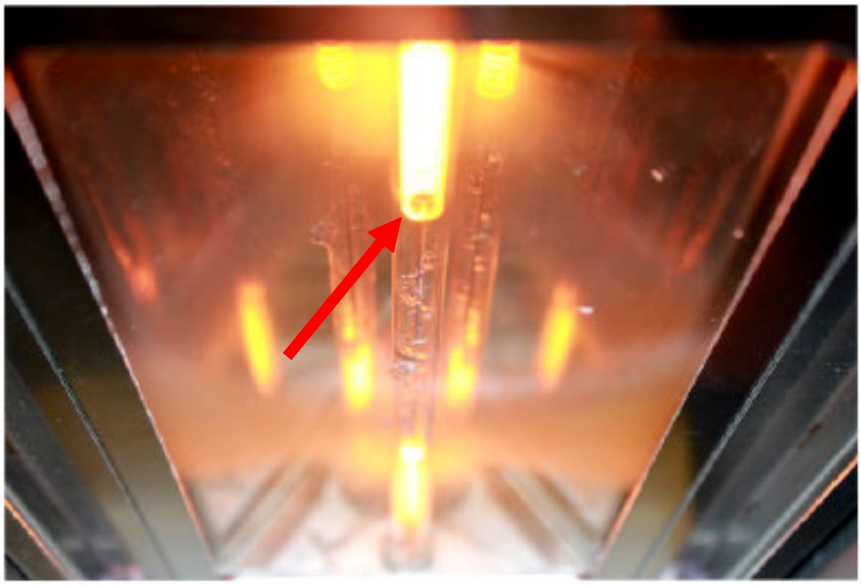
13. Remove the affected Heat Element by peeling off from the heat sink. Ensure any excess tape and/ or adhesive is removed.



EX1008: 22 (showing flexible resistive wire).

Each first/upper heating element is a Quartz IR Bulb having a coiled resistive wire (glowing/hot). EX1007: 53; EX1025: 1:29-30; EX1003: ¶221.

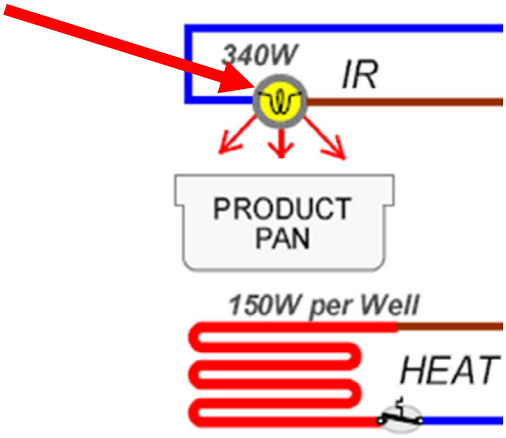
## Duke Sealed IR



- Long lasting, proven emitters have been used in Duke holding equipment for 10 years.



EX1007: 11, 36.

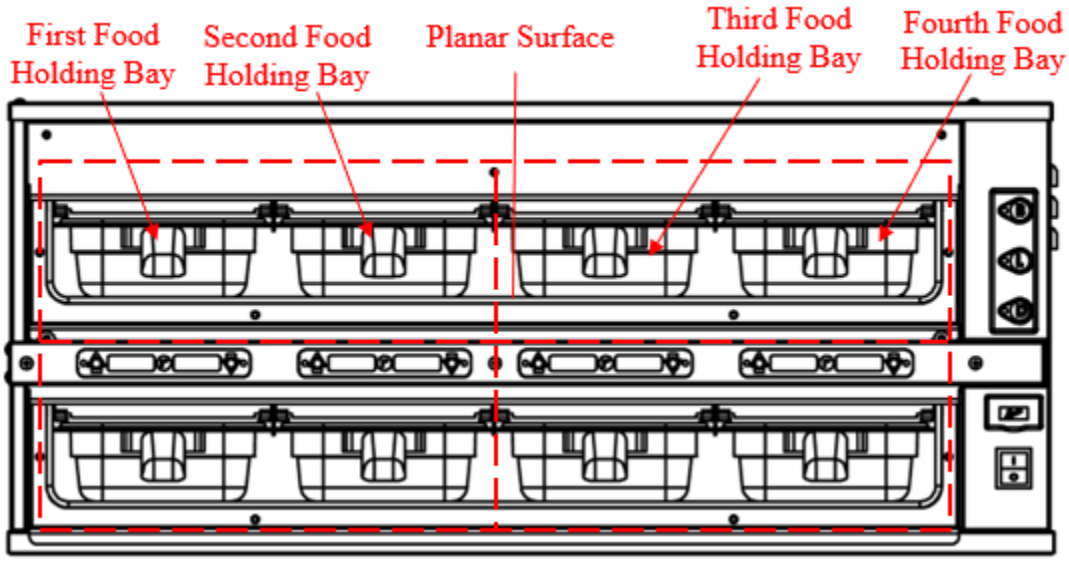


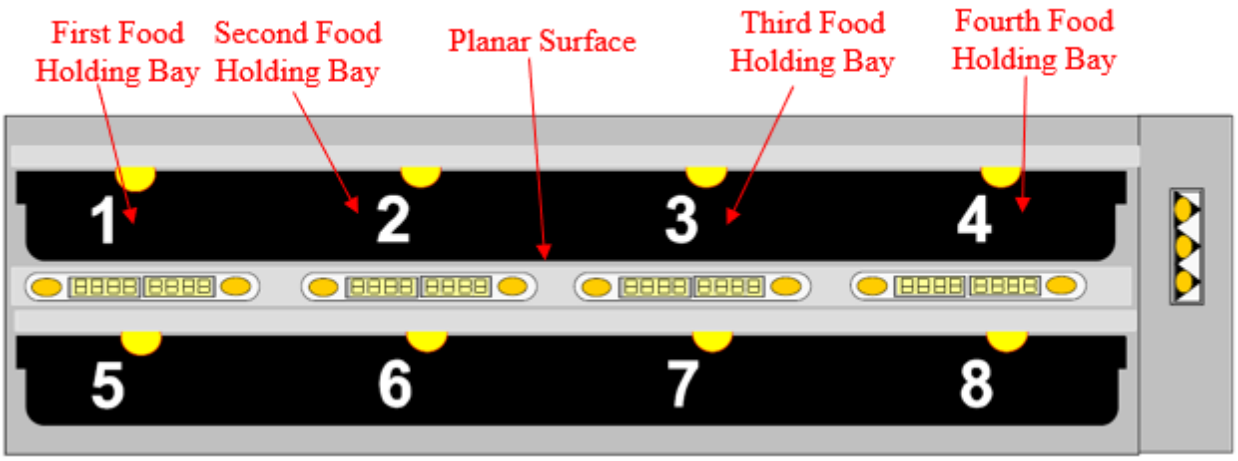

EX1008: 64 (showing schematic resistive wire).

## I. Claims 7/18/26

The planar surface is free of dividing walls/structures between bays.

EX1003: ¶¶225-228, 278-280, 338-340.



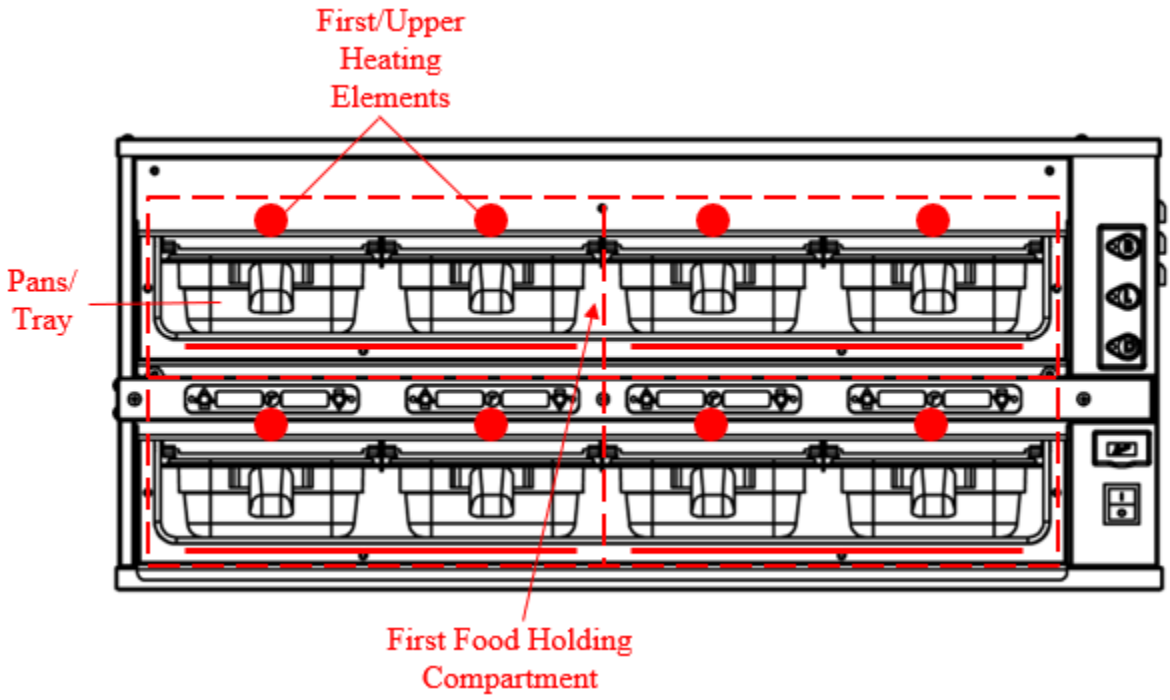



EX1005: 8, 25.

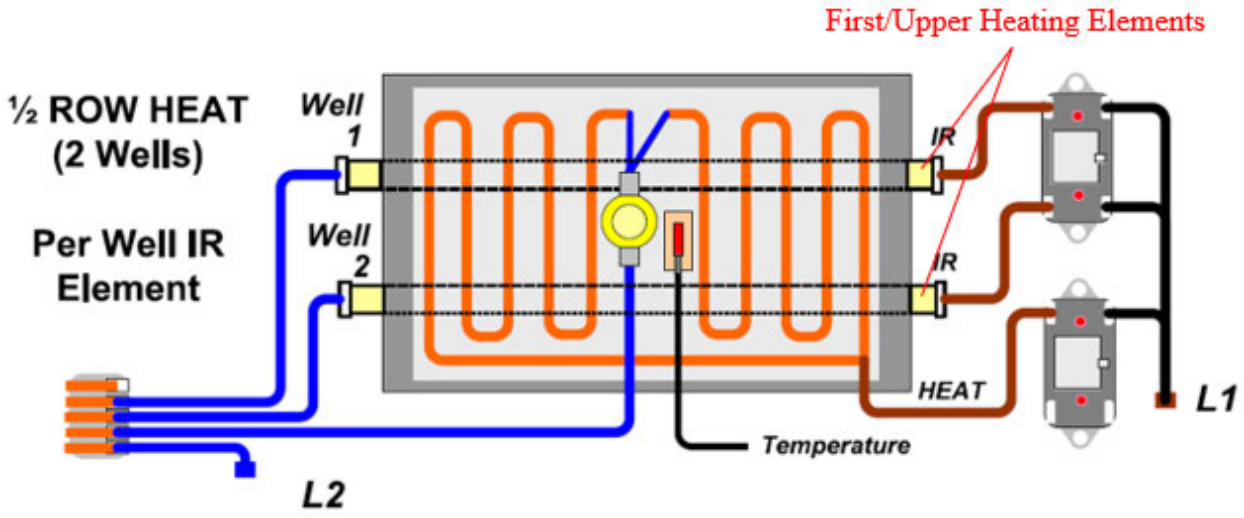
### J. Claims 8/10/19/27

The first/upper heating elements are IR bulbs providing radiant heat.

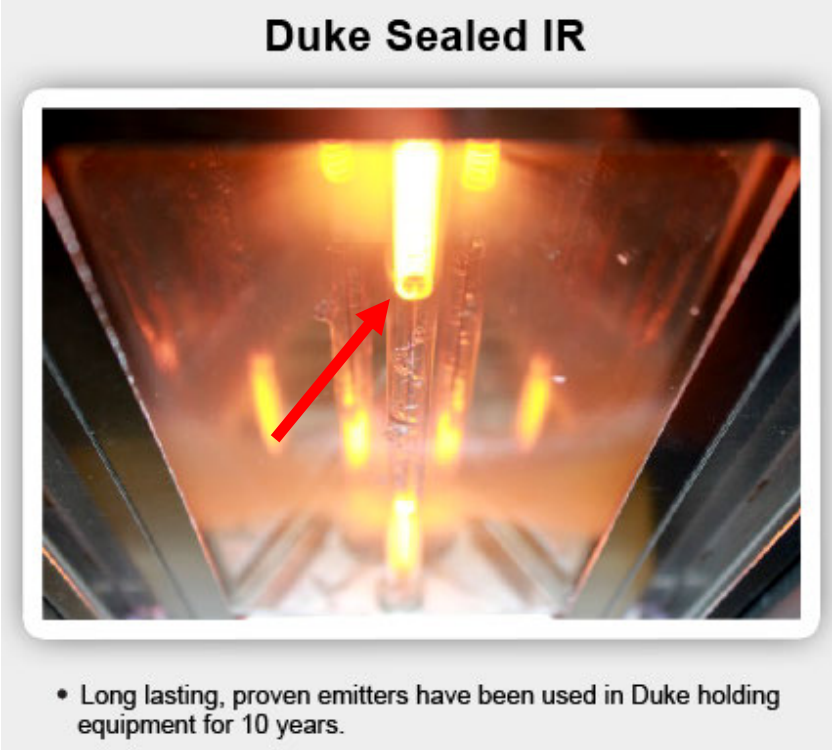
EX1005: 20; EX1007: 51; EX1003: ¶¶229-231, 241-243, 281-283.




EX1005: 8.

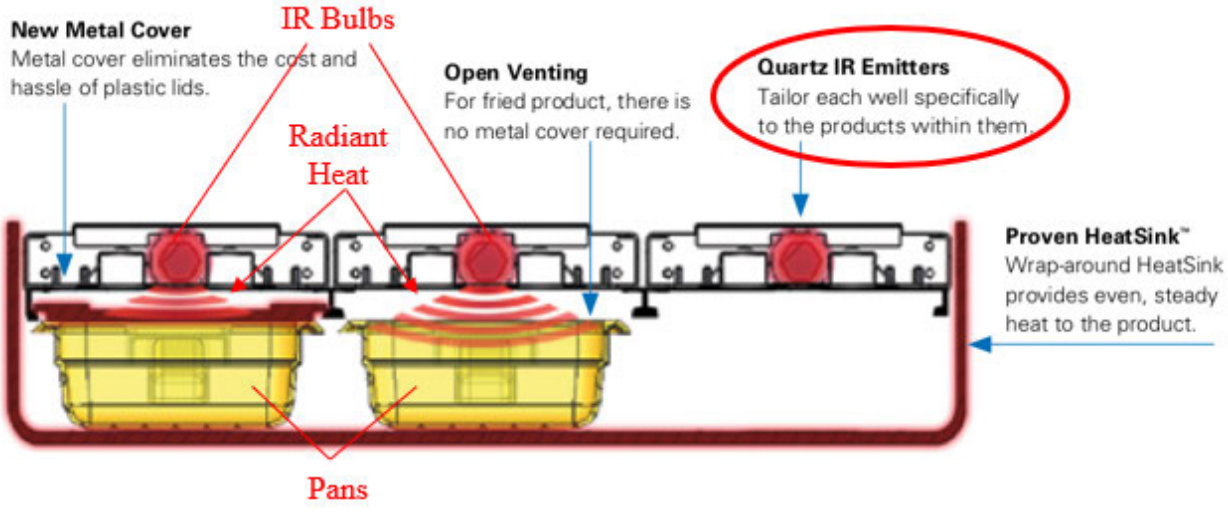

First/Upper Heating Elements
½ ROW HEAT
(2 Wells)
Per Well IR
Element
Well
1
Well
2
IR
IR
HEAT
L1
Temperature
L2

EX1005: 25.


Duke Sealed IR
• Long lasting, proven emitters have been used in Duke holding equipment for 10 years.

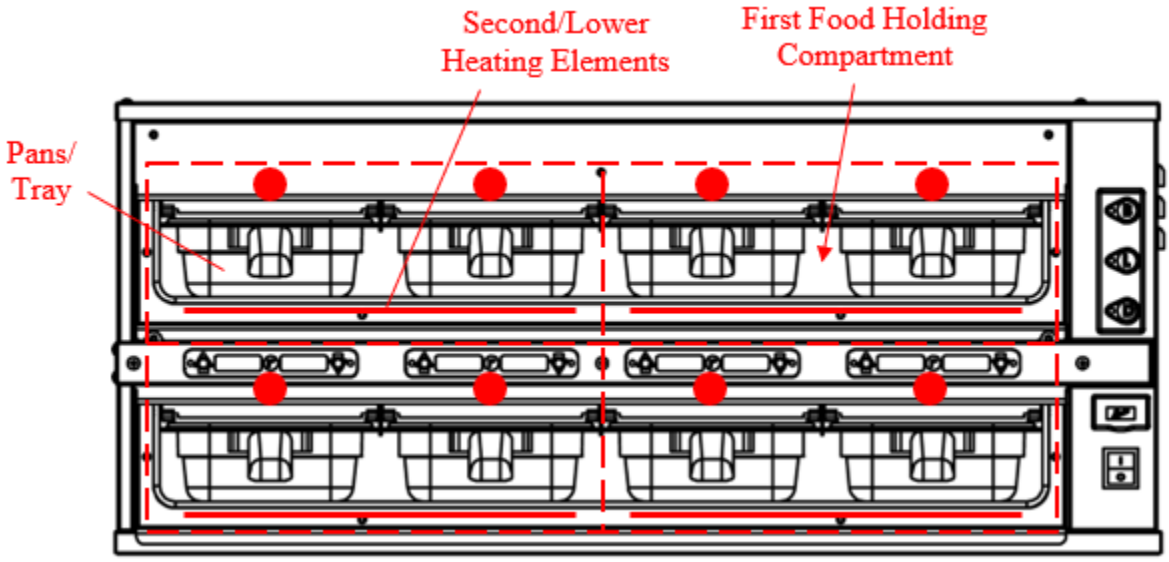


EX1007: 11, 36.

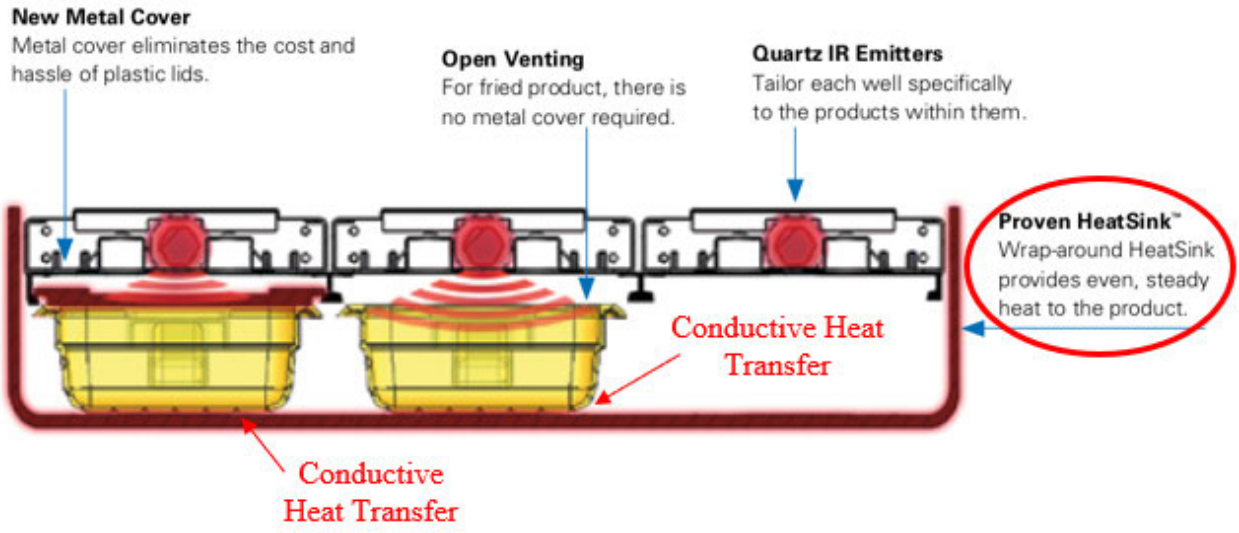



EX1007: 53.

The second/lower heating element is part of the HeatSink and heats pans/trays on the planar surface through conduction. EX1007: 51; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1003: ¶¶232-235, 244-245, 341-342.




EX1005: 8.



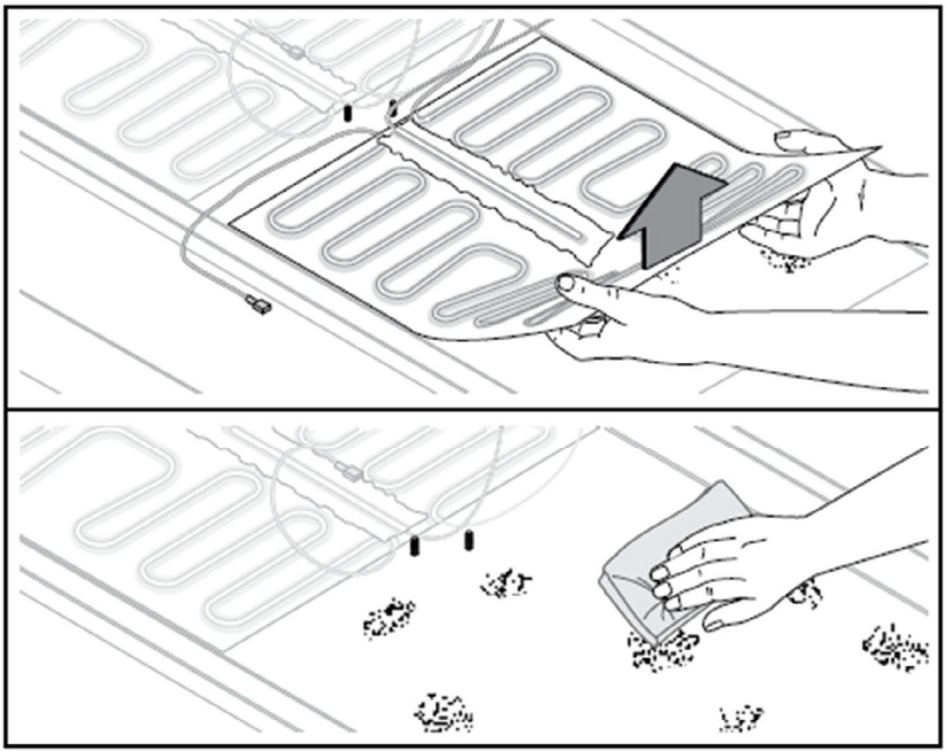

EX1007: 53.

## HEAT ELEMENTS

The Heat Elements provide the heating required to keep the heating wells at proper operating temperatures. The quantity varies depending on model and are affixed to the bottom of each Heat Sink.

EX1008: 21.

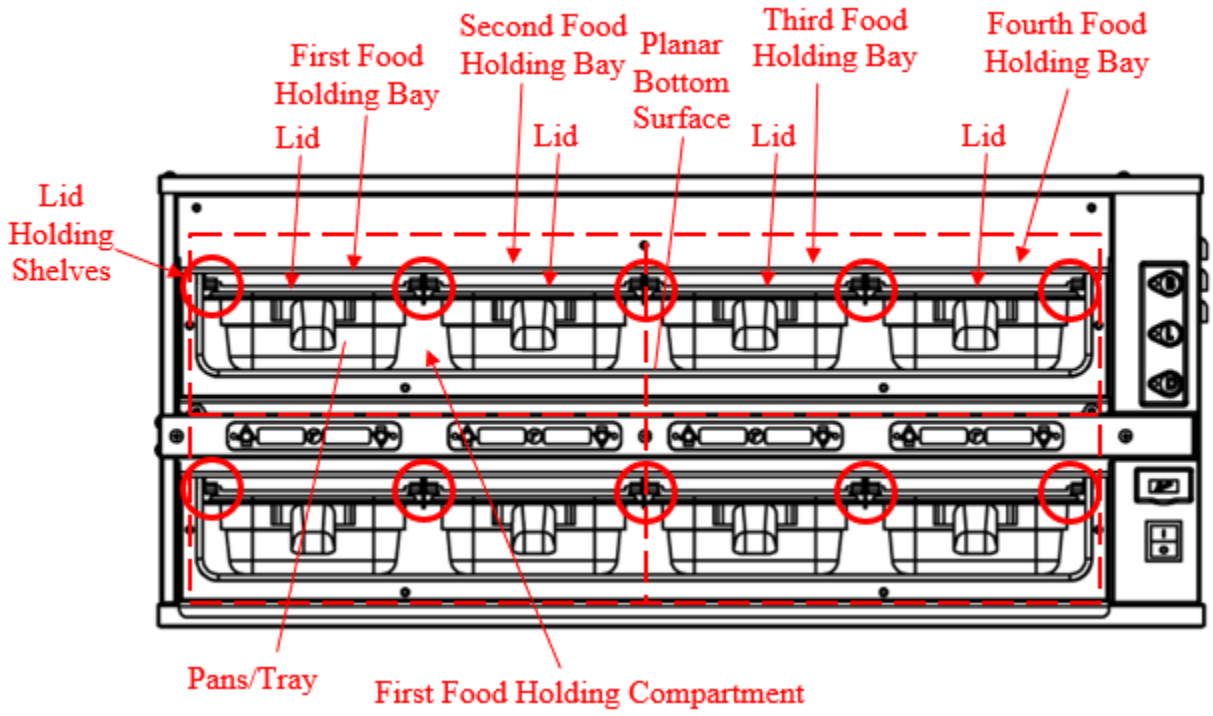
13. Remove the affected Heat Element by peeling off from the heat sink. Ensure any excess tape and/or adhesive is removed.



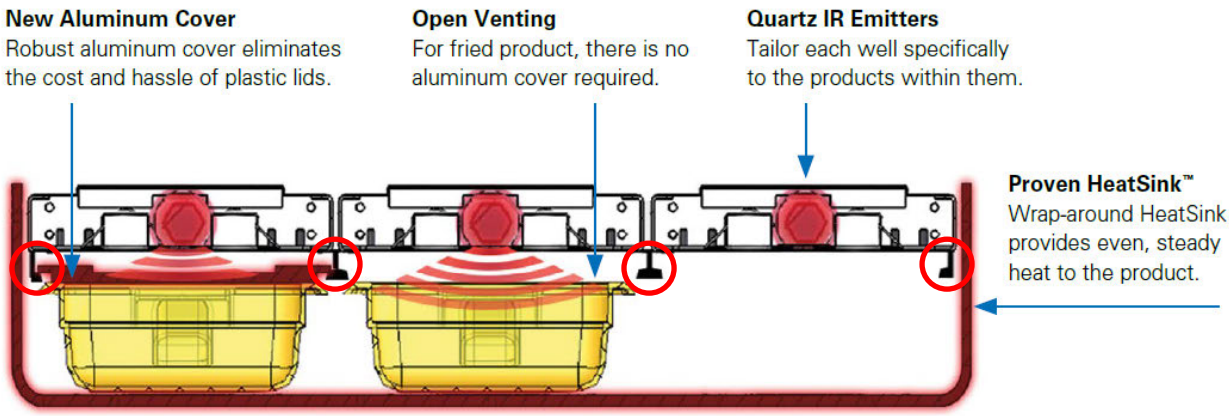
EX1008: 22.

### K. Claim 9

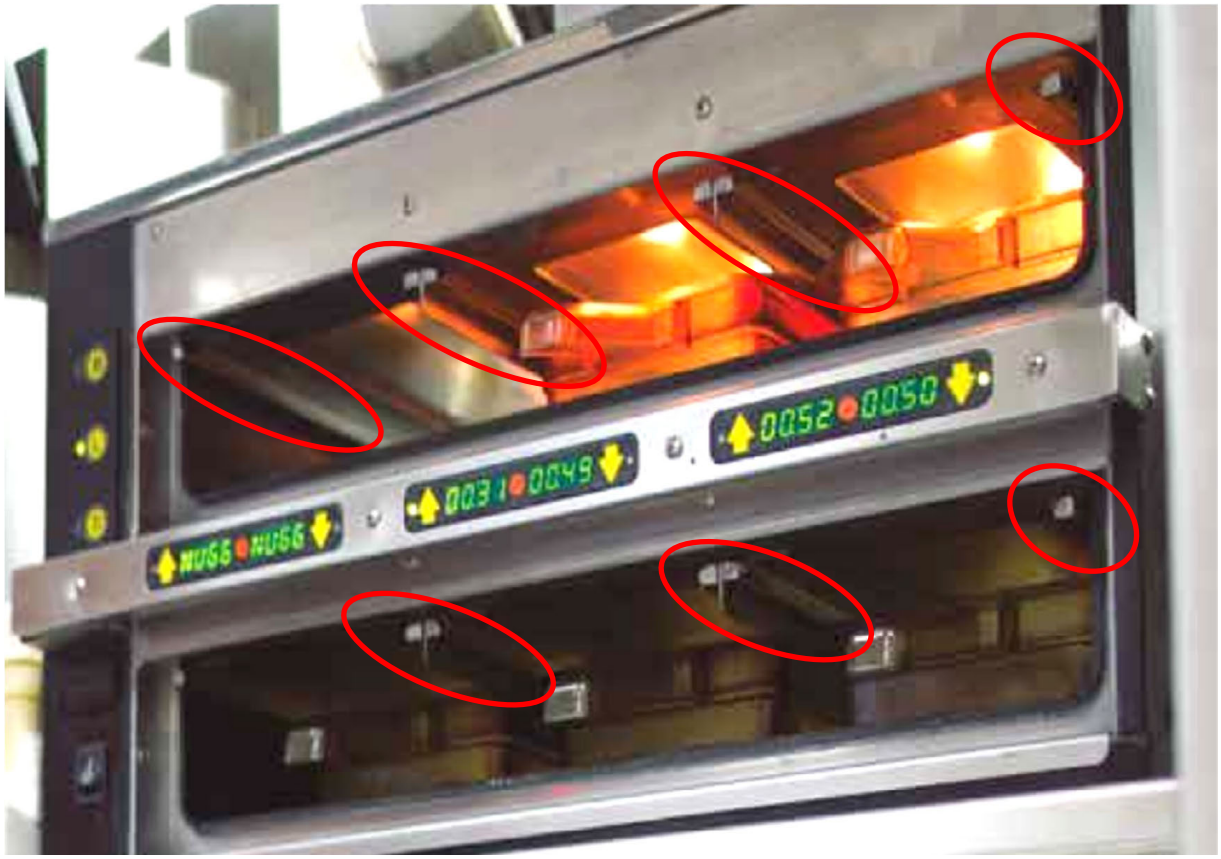
IRHS24 includes lids for each bay. EX1005: 4, 8, 20-21; EX1007: 53, 56, 58; EX1003: ¶¶236-238. IRHS24's bays each comprise dedicated lid-holding shelves elevated above the planar bottom surface in the compartment for receiving/storing lids. EX1003: ¶¶239-240.



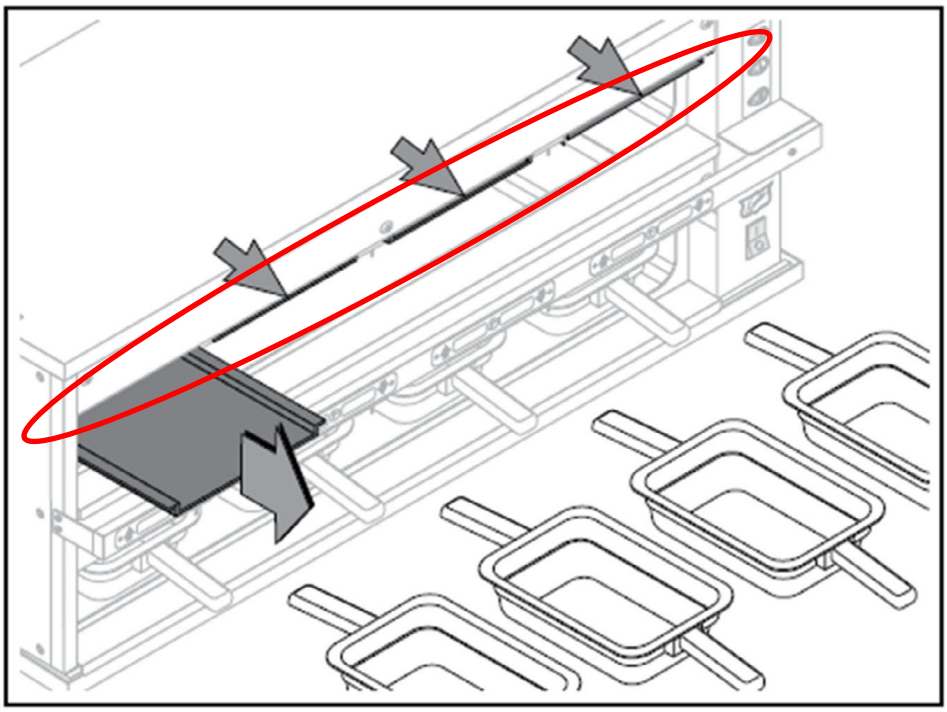

EX1005: 8.




EX1007: 53.



EX1007: 36.



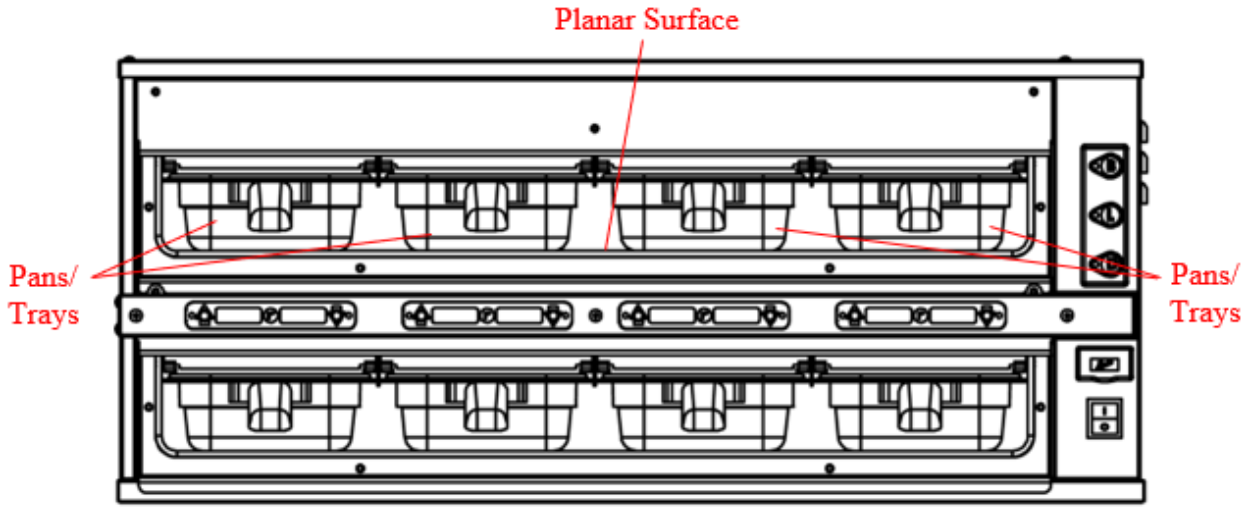
EX1008: 16.

**L. Claim 11**

The planar surface comprises aluminum or such construction would have been obvious. EX1006: 1; EX1005: 4, 8, 20-21; EX1007: 53, 58; Section IV(B)(1.c.3); EX1003: ¶¶246-250.

**M. Claim 12**

Pans/trays rest on the substantially planar surface. EX1003: ¶¶251-254.

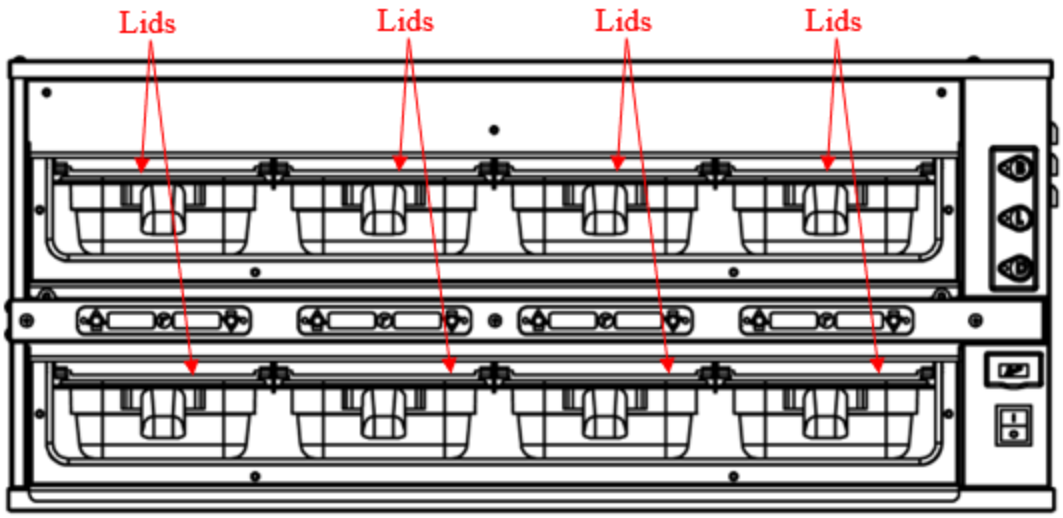



EX1005: 8.

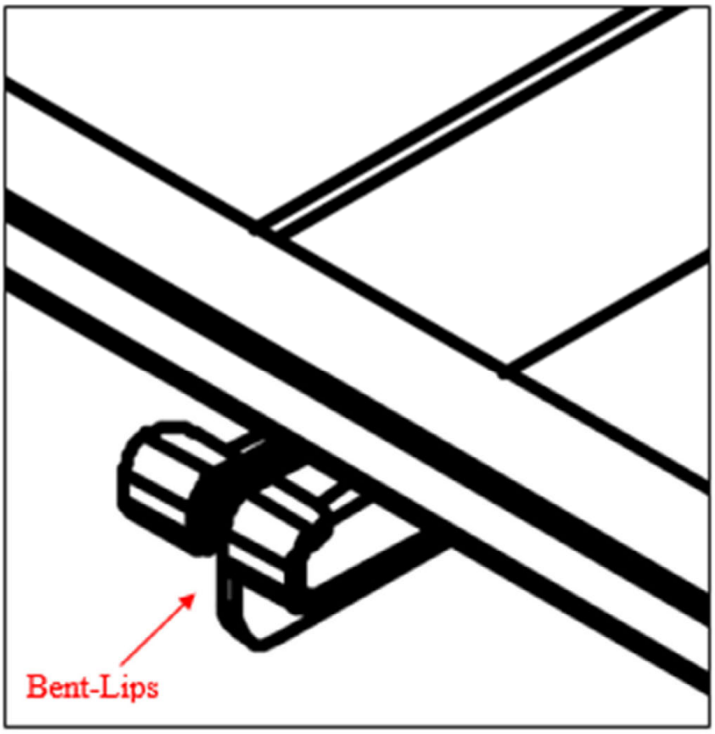
## V. GROUND 2: Claims 2, 16, 20, 24, 28, and 29 Would Have Been Obvious Over IRHS Documents in view of Hartfelder and/or Shei'099

### A. Modification of IRHS Documents based on Hartfelder and/or Shei'099

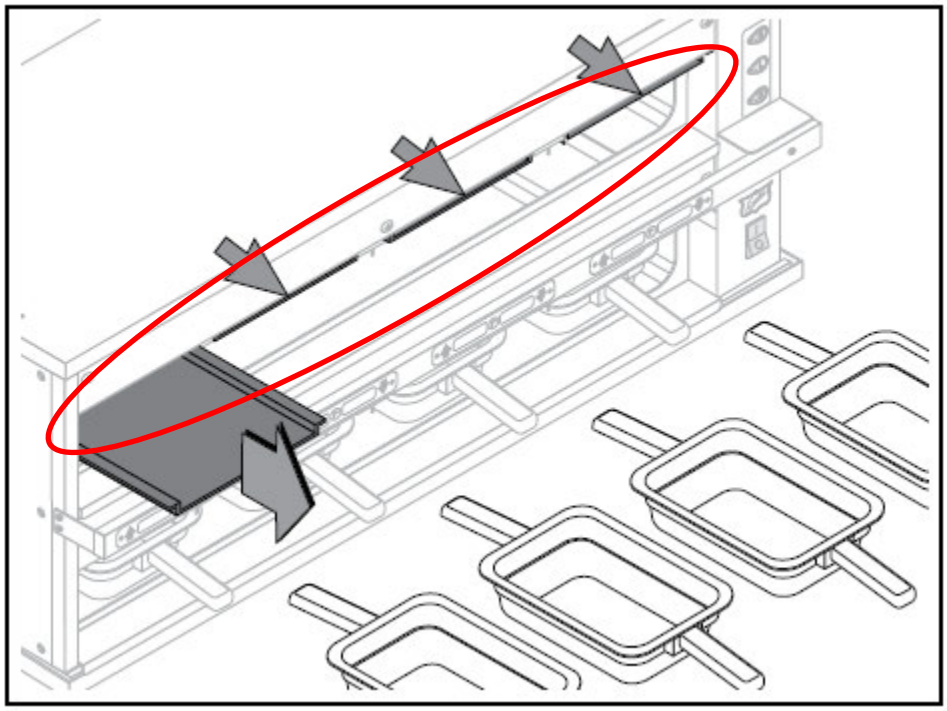
IRHS24 includes lids above each bay and bent-lip lid retainers. EX1005: 4, 8, 20-21; EX1007: 53, 56, 58; EX1003: ¶¶344-348.




EX1005: 8.




EX1005: 19 (enlarged, annotated).



EX1008: 16.

Hartfelder and Shei'099 disclose stops (61)/(88) for retaining lids (44, 46, 80). EX1013: ¶[0058]; EX1017: 6:9-32; EX1003: ¶¶349-351.

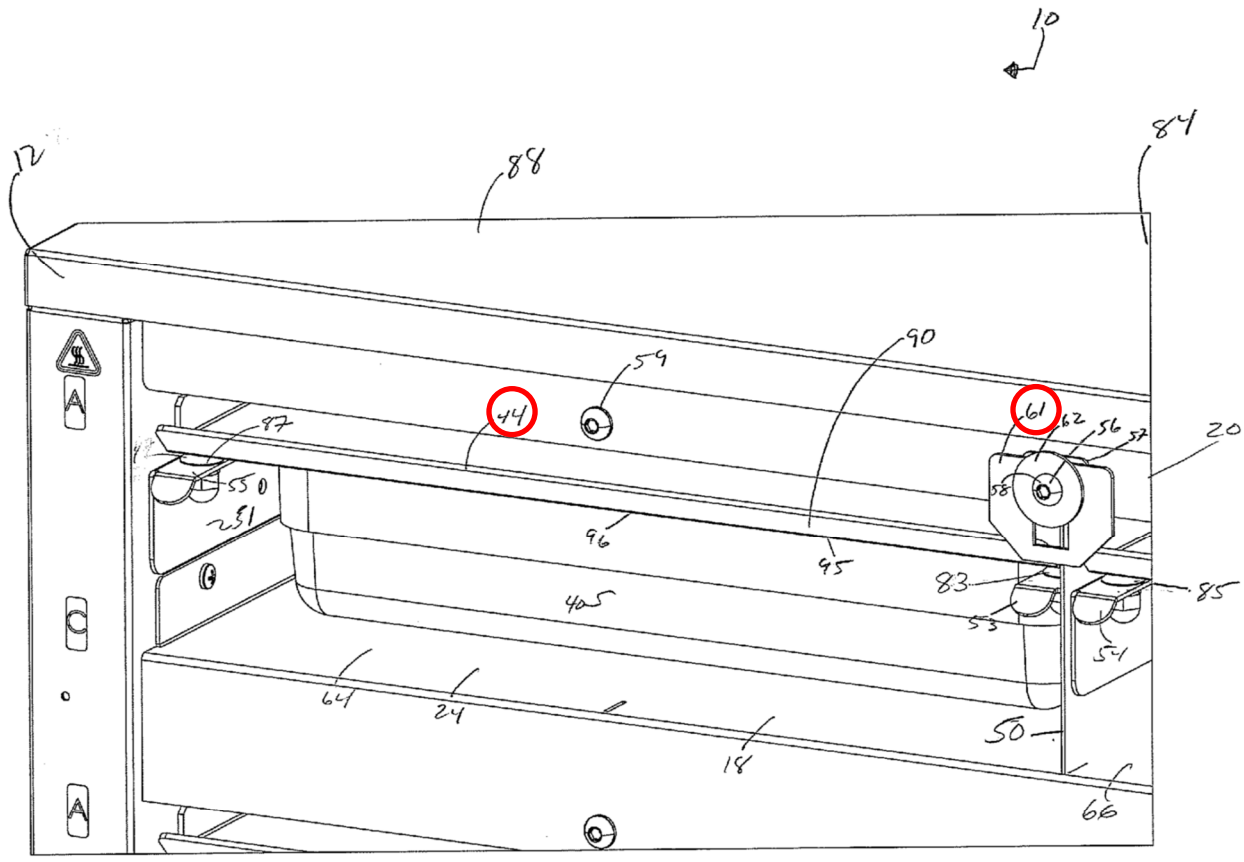



FIGURE 9

EX1013: Fig. 9.

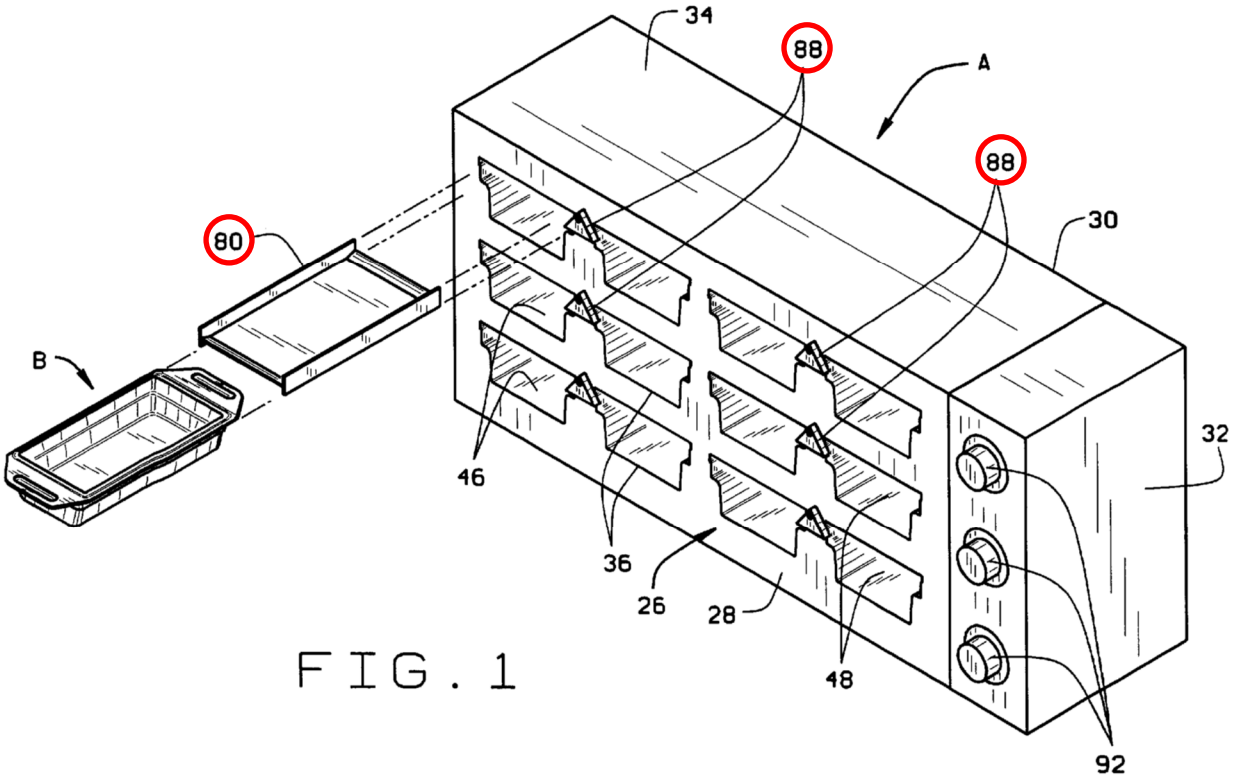


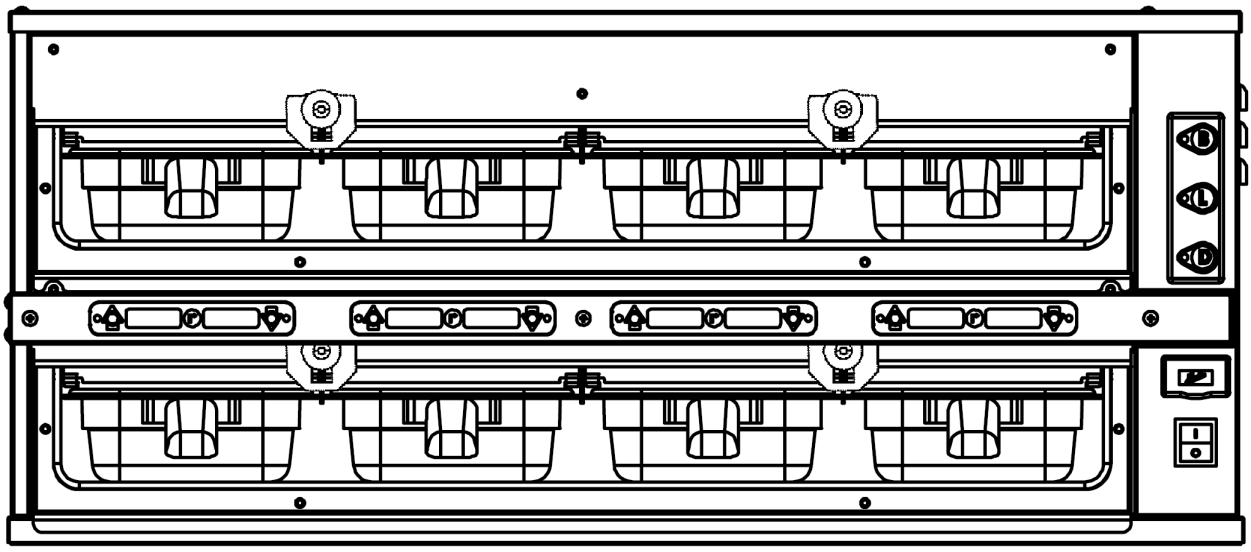

FIG. 1

EX1017: Fig. 1.

It would have been obvious to modify IRHS24 to include Hartfelder's or Shei'099's stops for retaining IRHS24's lids on the lid-holding shelves. EX1013: ¶[0058]; EX1003: ¶352. The stops would prevent the lids from moving (inadvertent lid removal/displacement) with pans being inserted and removed. EX1013: ¶[0058]; EX1017: 6:19-22; EX1003: ¶353. This would maintain lid position for covering pans. EX1003: ¶353. The stops would replace IRHS's existing bent-lip lid retainers (easier to clean and/or replace) or be added as backup for them. EX1005: 19; EX1011: ¶¶[0035]-[0037], Figs. 9-14; EX1003: ¶¶354-356

This would have been using a known technique/alternative (Hartfelder's or Shei'099's stops to retain lids) to improve a similar device (IRHS24) in the same way with predictable results (retaining lids in place while inserting/removing pans) with reasonable expectation of success (stops performing the same lid retention function in similar food warming units). EX1013: ¶[0058]; EX1003: ¶¶357-358.

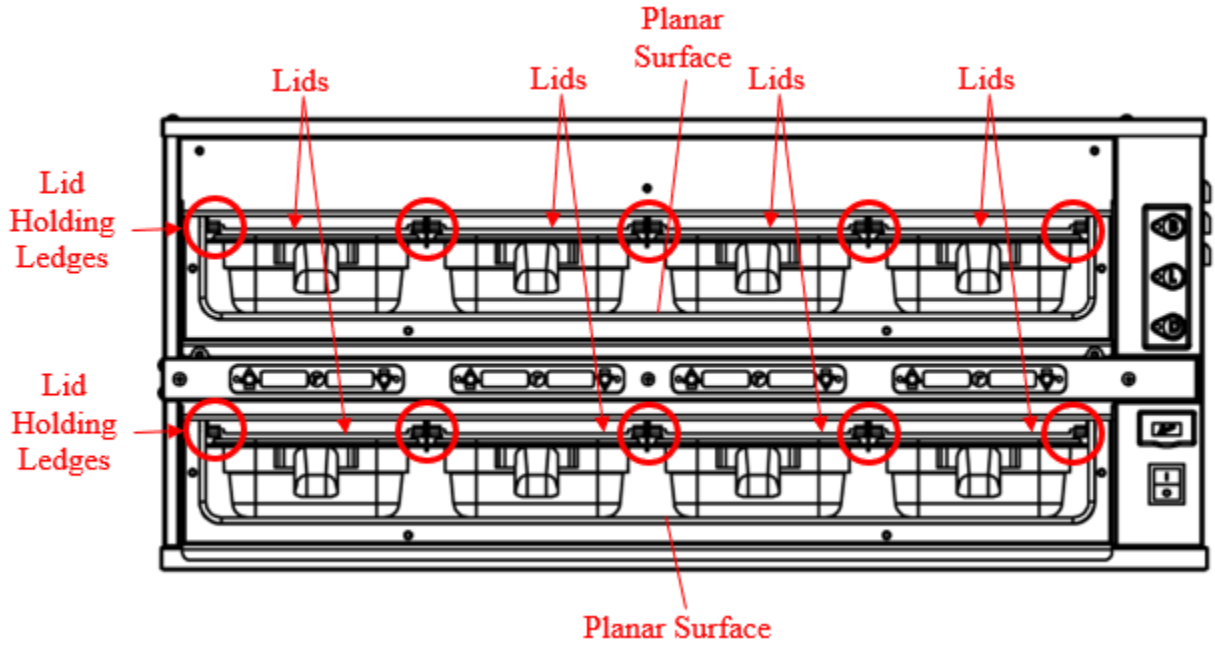
In modified IRHS24, each stop would be on the face of the chassis/shelf between two lids as in Hartfelder and Shei'099. EX1003: ¶359. A representative illustration of IRHS24 including Hartfelder's stops is below. EX1003: ¶360. A modification implementing Shei'099's stops would be similar but with Shei'099's stops. EX1003: ¶360.



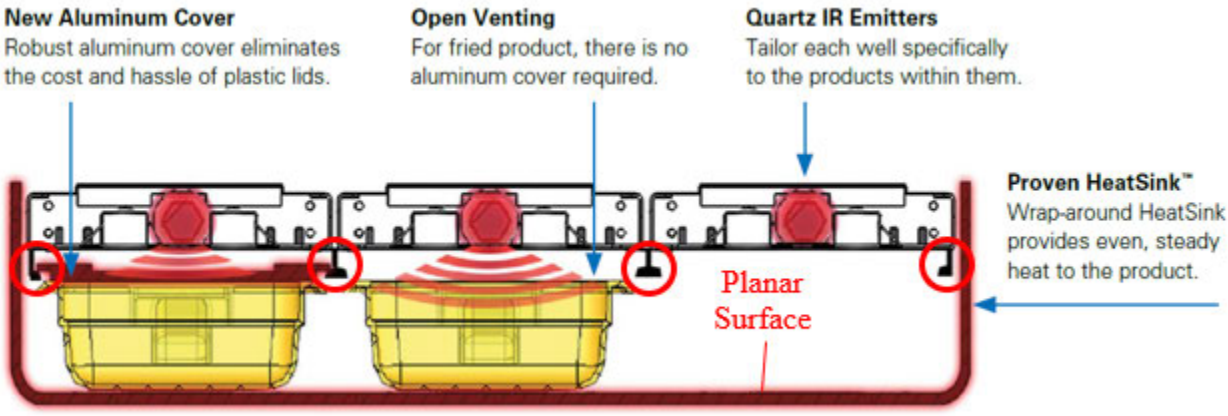
EX1005: 8 (modified, unannotated).

### B. Claim 2

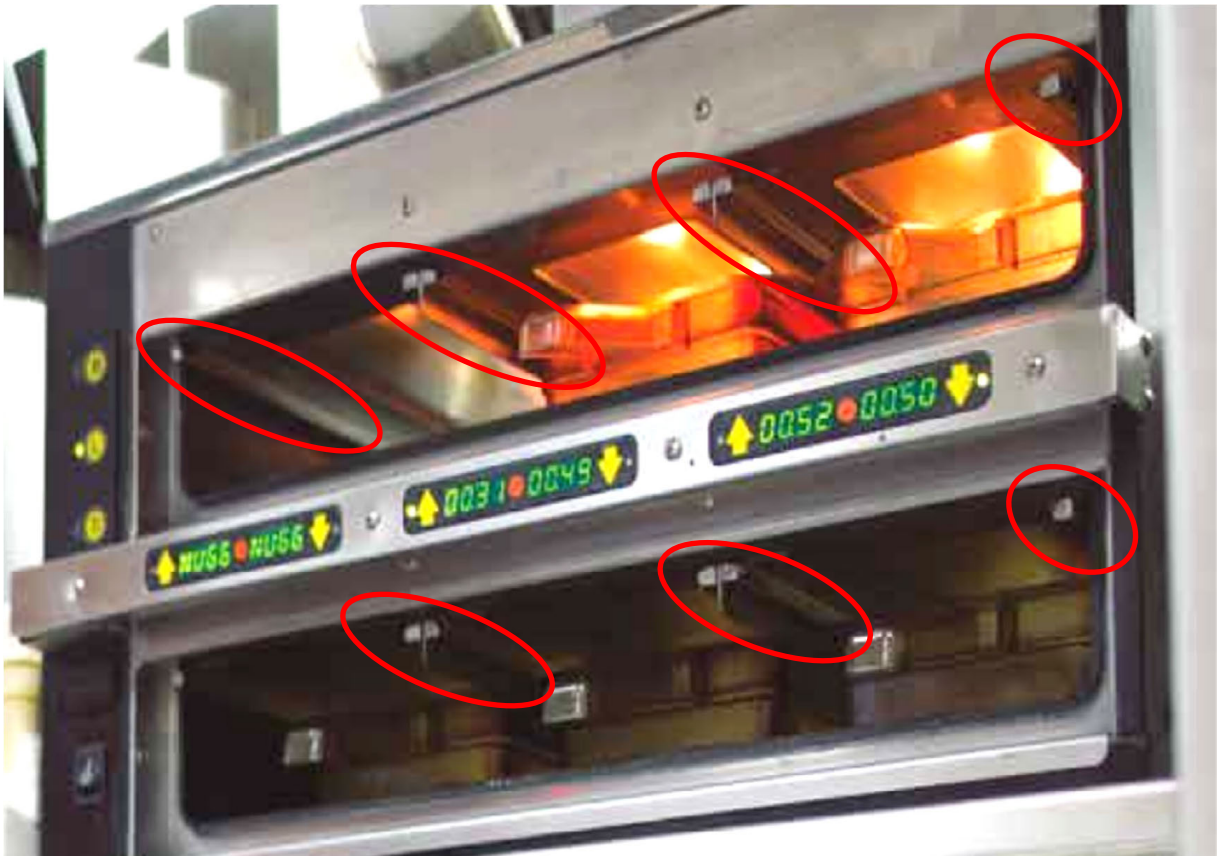
IRHS24 includes lids on lid holding ledges/shelves above the planar surface. Section IV(K); EX1003: ¶¶361-363.



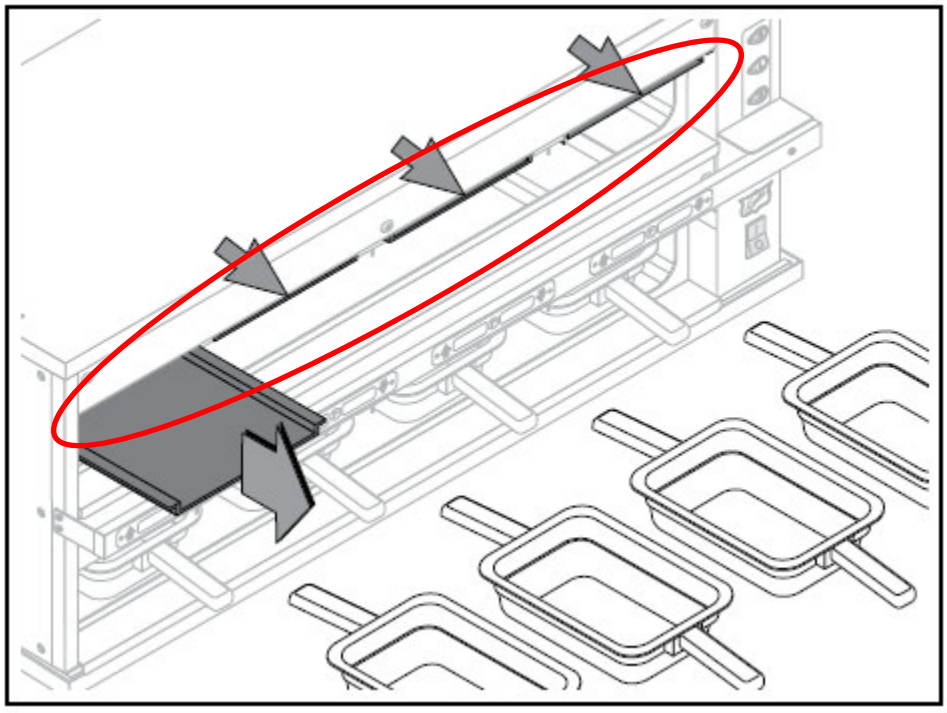

EX1005: 8.




EX1007: 53.

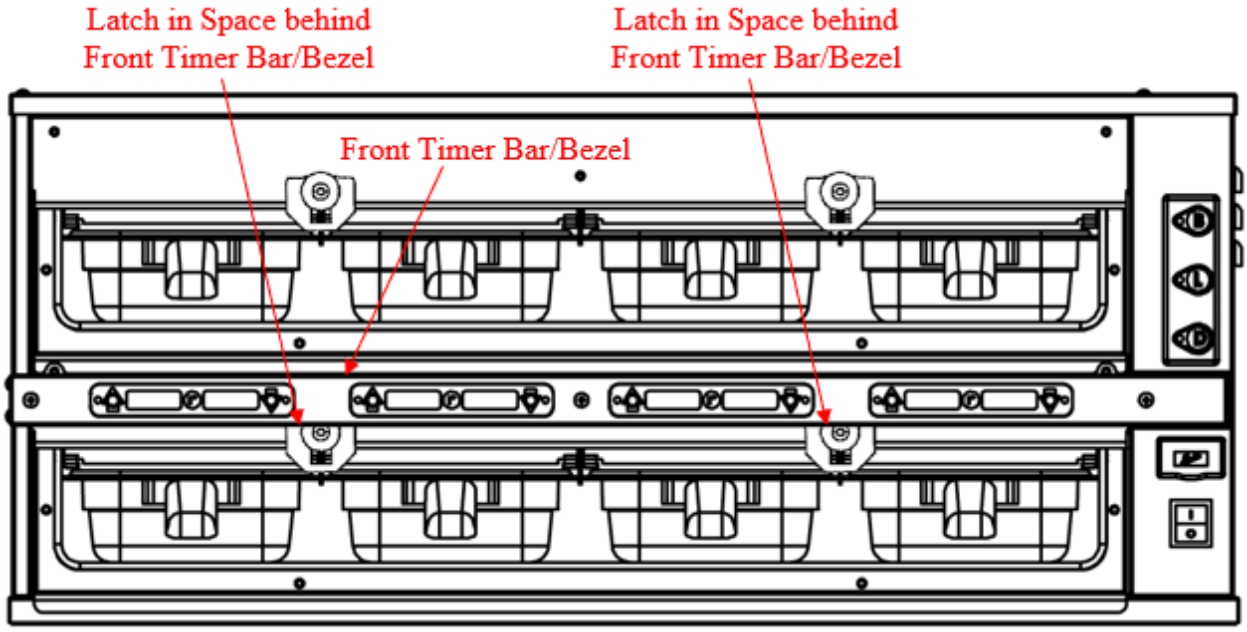


EX1007: 36.



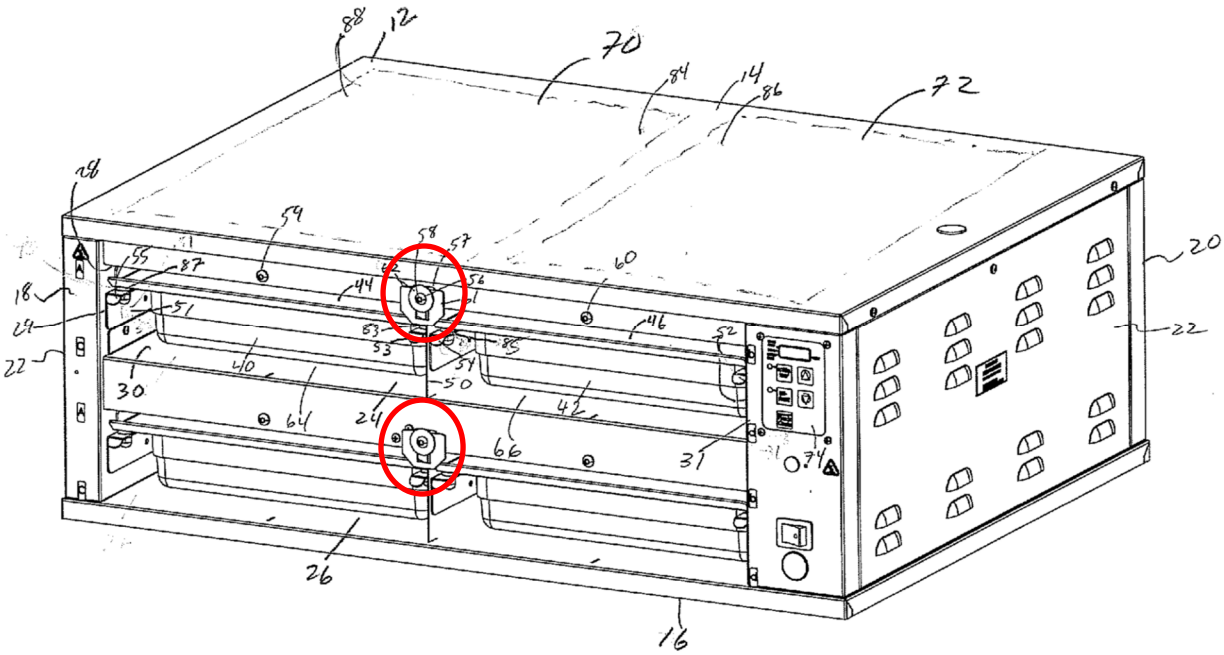
EX1008:16.

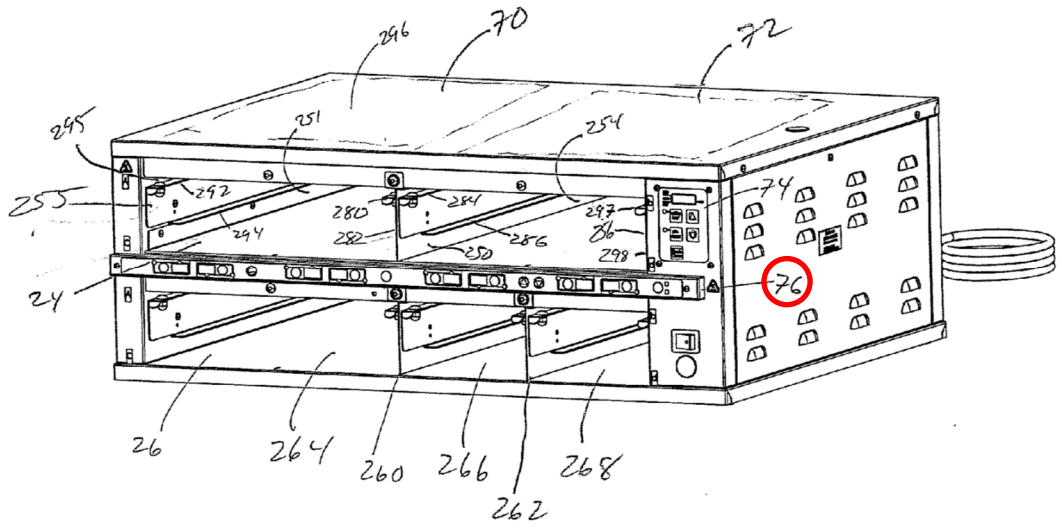
As described in Section IV(B)(1.g), IRHS24 has a front timer bar/bezel spaced forward from the shelf. EX1003: ¶364. In view of Hartfelder and/or Shei'099, the stops (latches) would have been in the space. Section V(A); EX1003: ¶365.




EX1005: 8 (modified).

This is where the latches would have been to engage and retain lids in view of Hartfelder/Shei'099 (even with a bezel (76)). EX1013: Figs. 1-5, 9, ¶[0039]; EX1003: ¶¶366-367.


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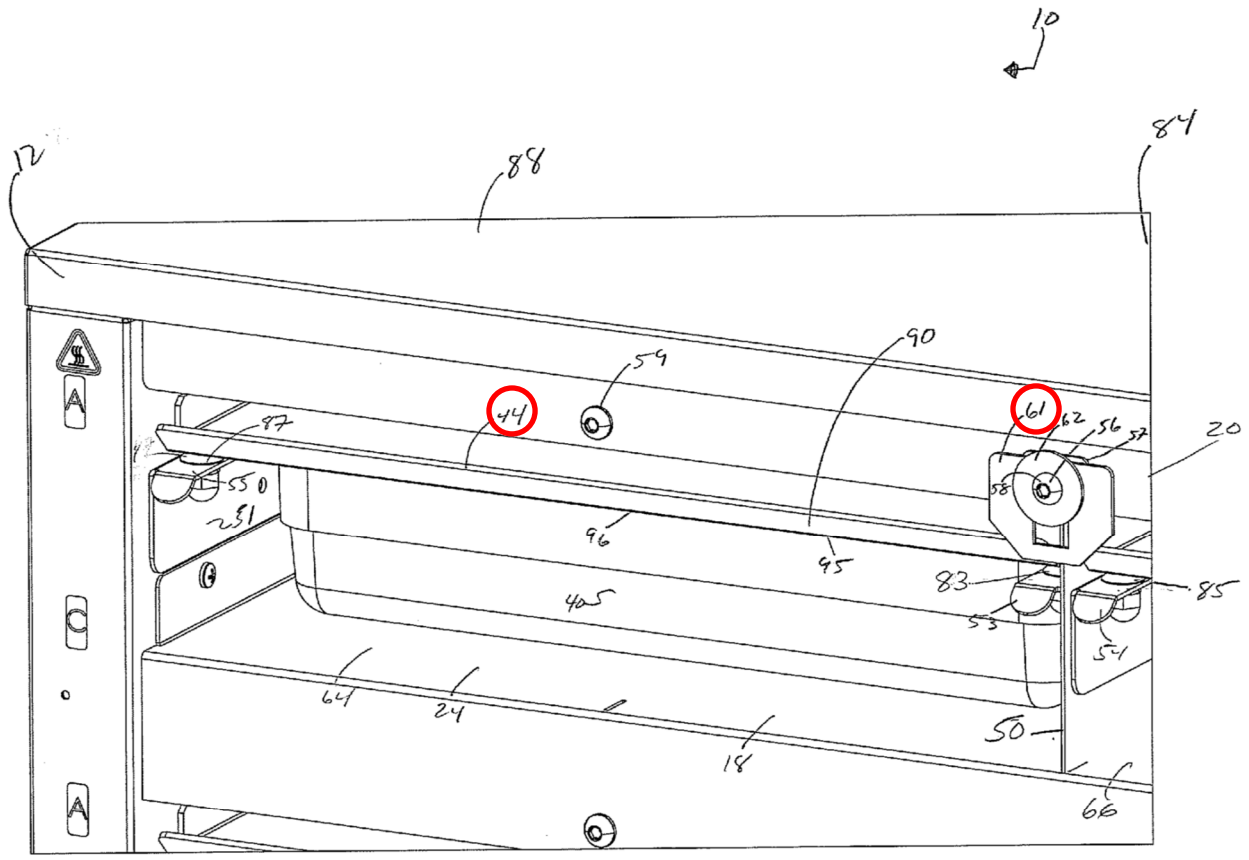



FIGURE 9

EX1013: Figs. 1, 3, 9.

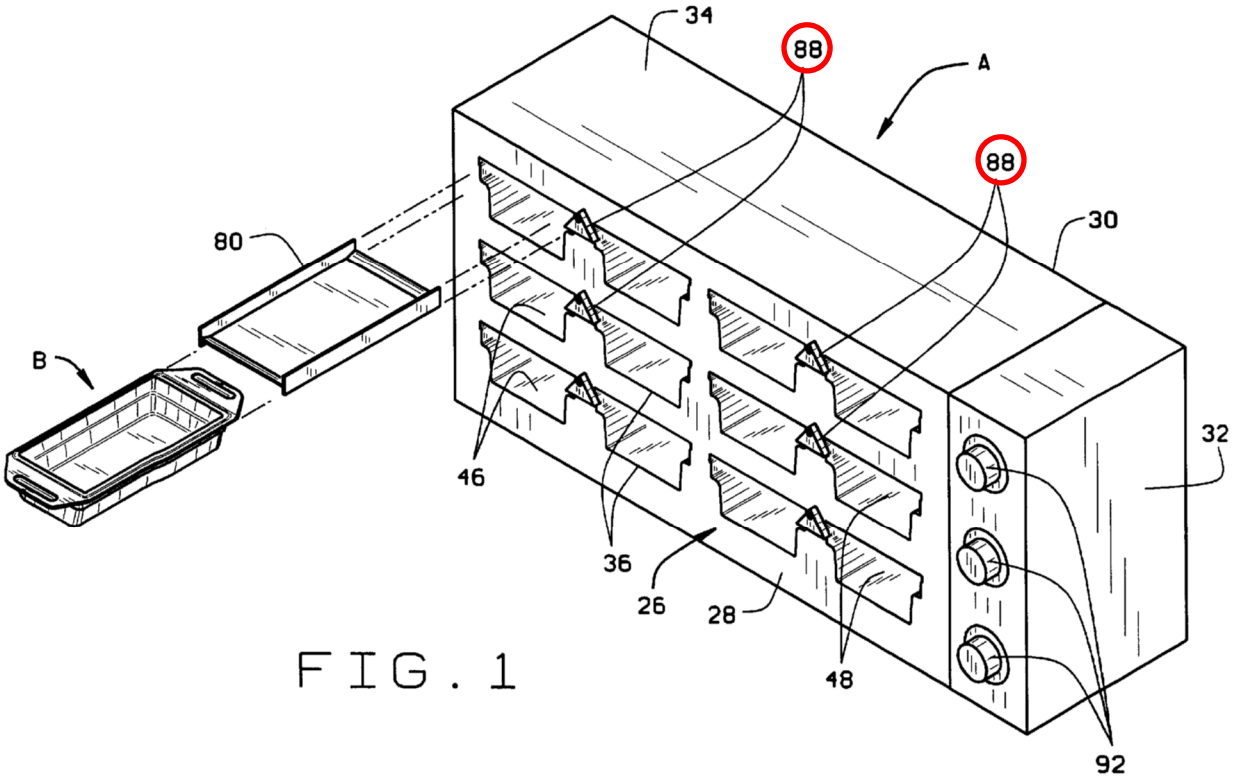
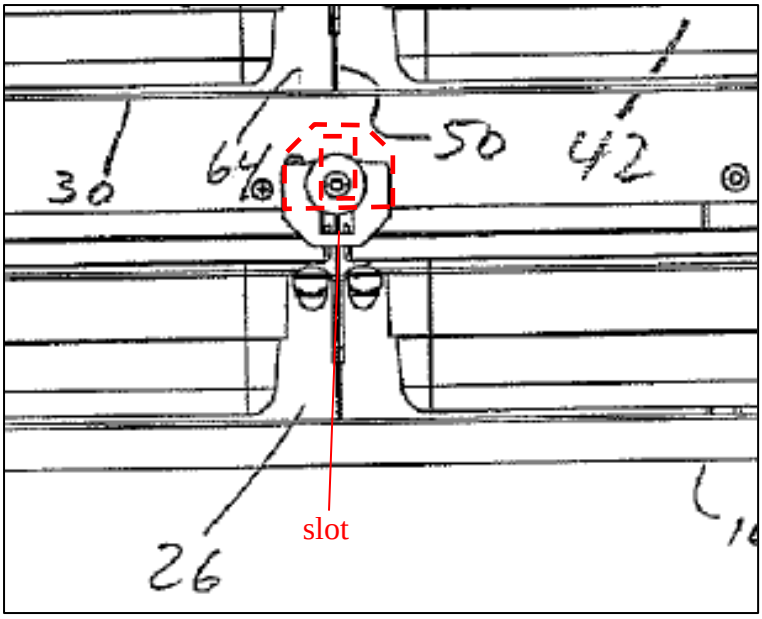


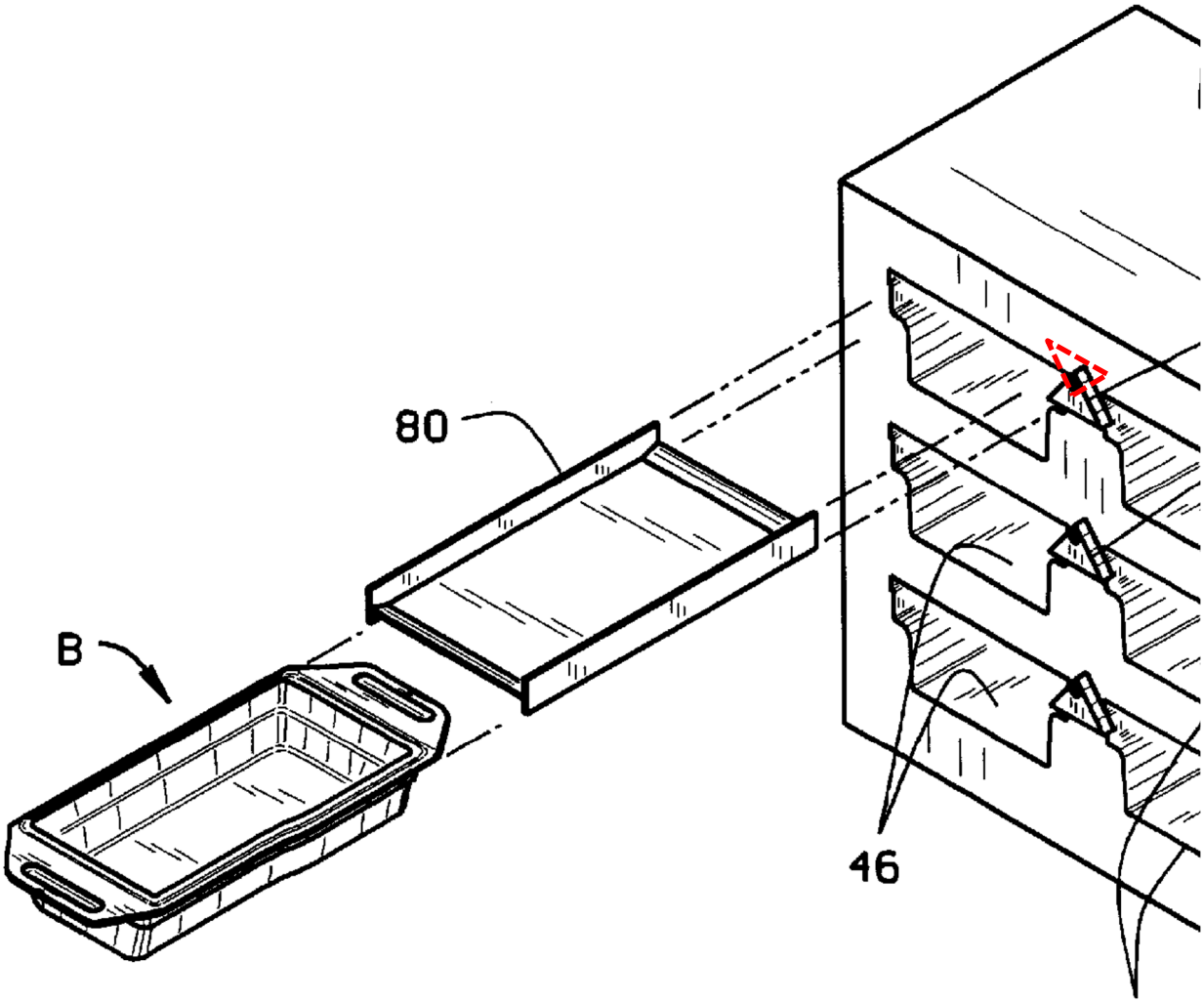

FIG. 1

EX1017: Fig. 1.

Hartfelder's and Shei'099's stops (61)/(88) are moveable/rotatable between locked and unlocked positions. EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; EX1003: ¶¶368-371.

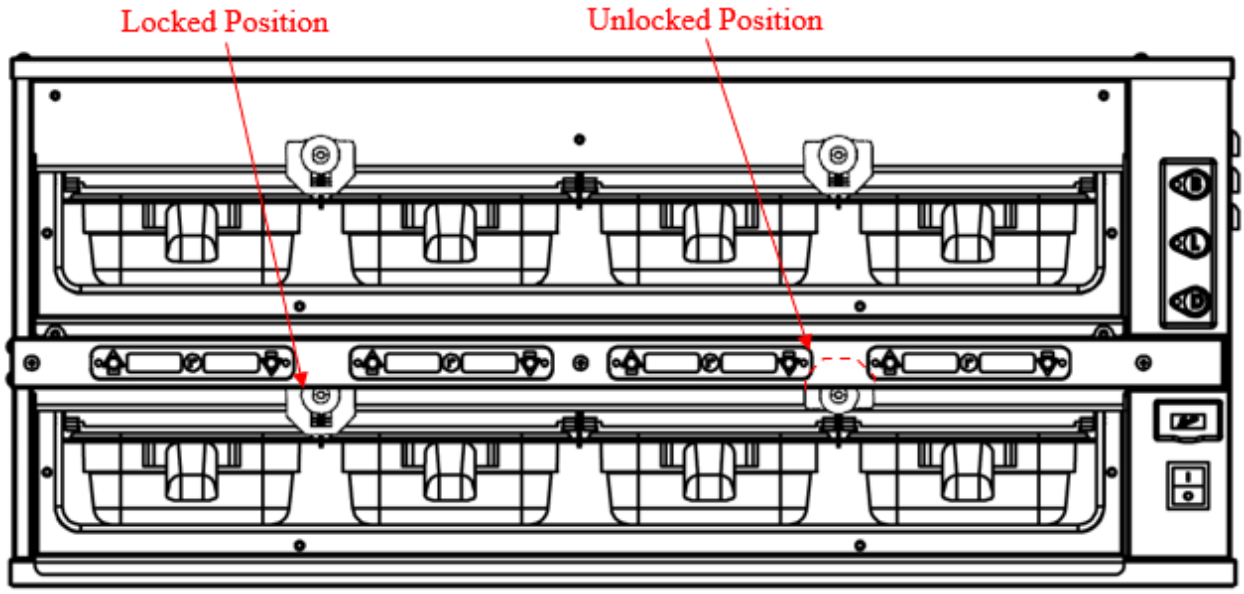



EX1013: Fig. 2 (enlarged).




EX1017: Fig. 1 (enlarged).

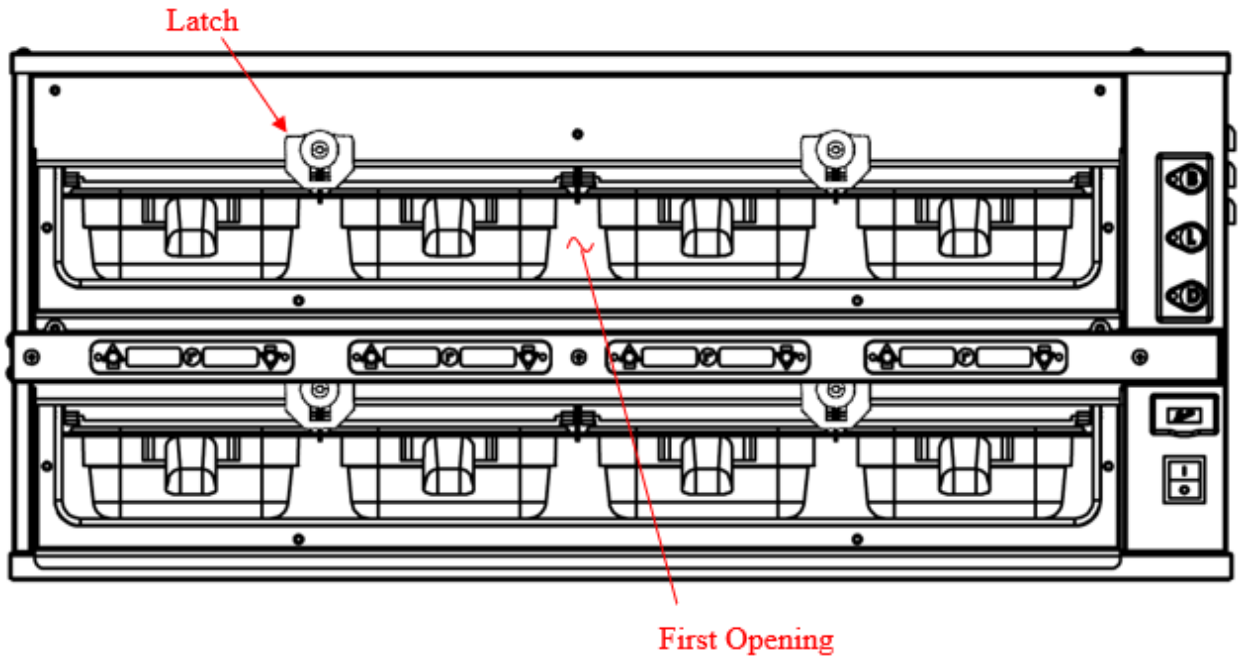
Therefore, latches in the space between the timer bar/bezel and shelf that rotate between locked/unlocked positions to retain/release lids on lid holding ledges would have been obvious. EX1003: ¶¶372-373.




EX1005: 8 (modified).

### C. Claims 16/24

Hartfelder and Shei'099 disclose rotatable latches (stops) adjacent openings such that it would have been obvious to modify IRHS24 to have rotatable latches adjacent the first opening. Sections V(A)-(B); EX1013: ¶[0058]; EX1017: 6:9-32. EX1003: ¶¶374-379, 391-393.




EX1005: 8 (modified).

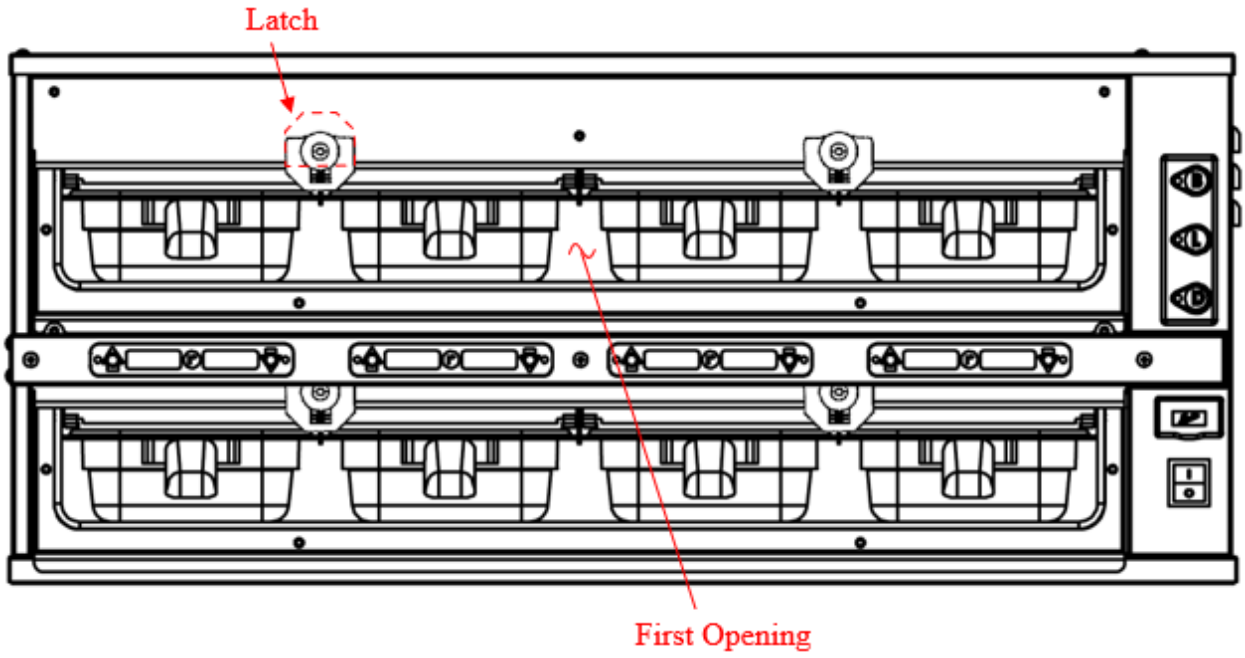
**D. Claims 20/28:**

**20.a/28.a**

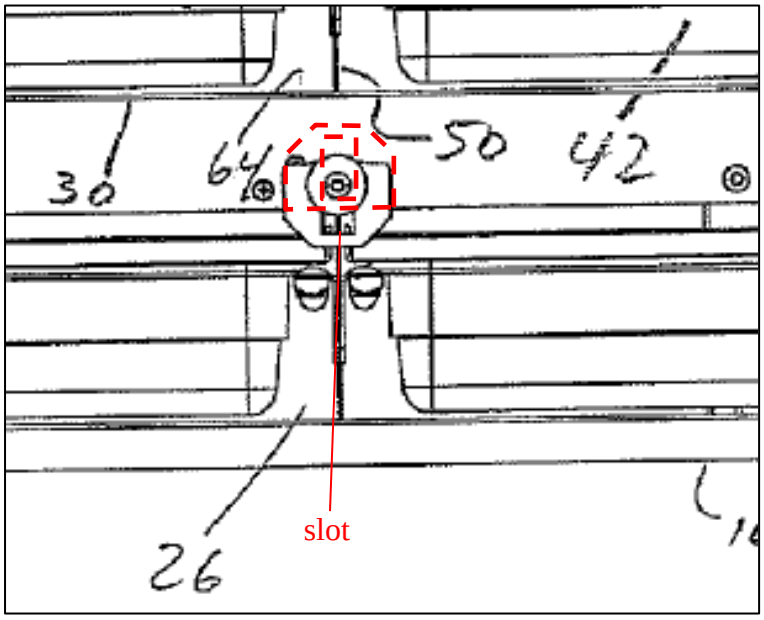
Met as explained in Section IV(K). EX1003: ¶¶380-382, 394-396.

**20.b.1/28.b.1**

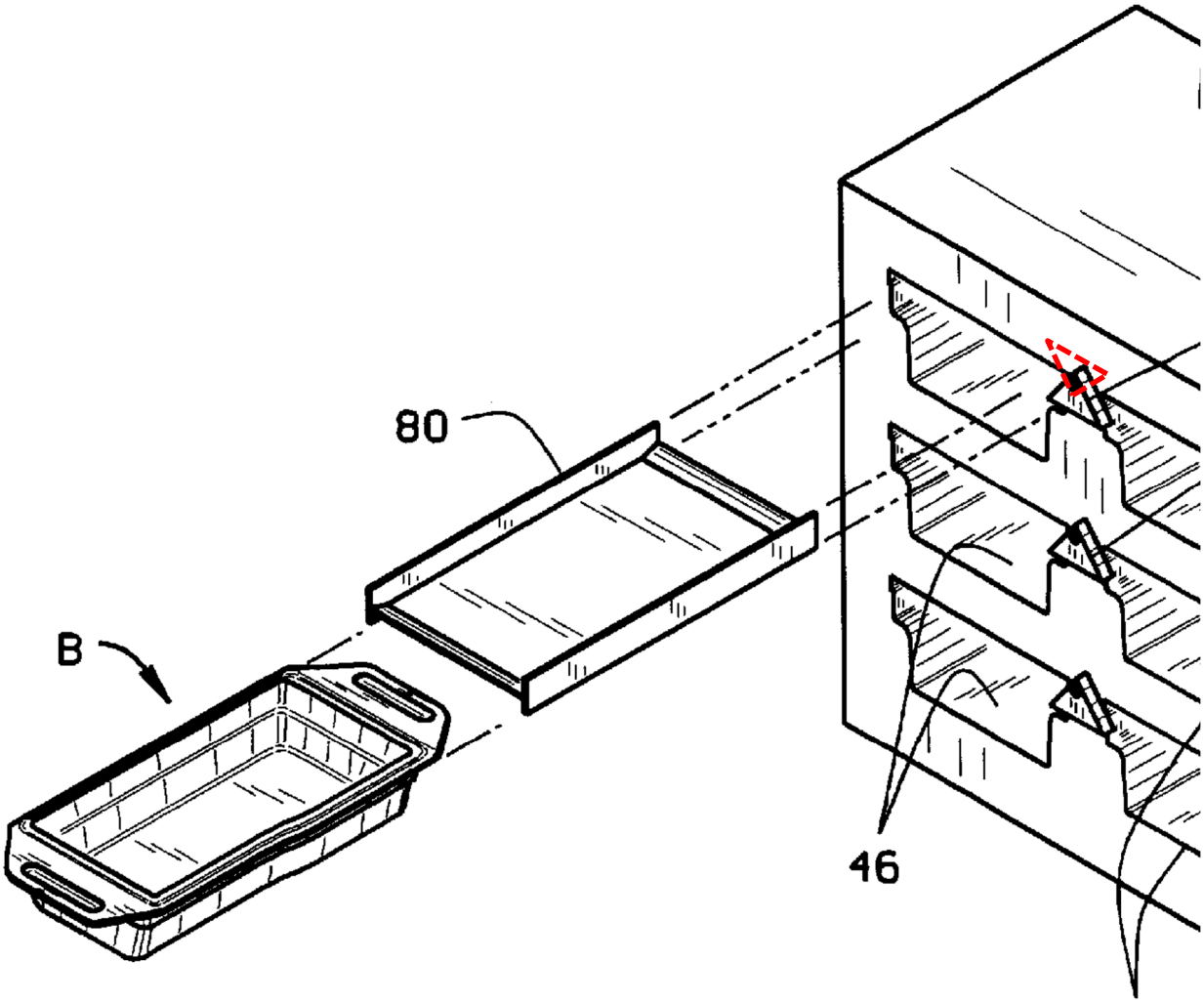
Met as explained in Sections V(B) and V(C). EX1003: ¶¶383, 397-398. In the locked position, the latch would have been positioned (gravity/at rest) to block/prevent lid removal. EX1013: ¶[0058], Fig. 2; EX1017: 6:19-21; EX1016: ¶[0043], Fig. 1; EX1003: ¶¶384-385. In the unlocked position, the latch would have been rotated (45-degrees, 180-degrees (annotated)) to allow lid removal. EX1013: Fig. 2; EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; EX1003: ¶386.




EX1005: 8 (modified).



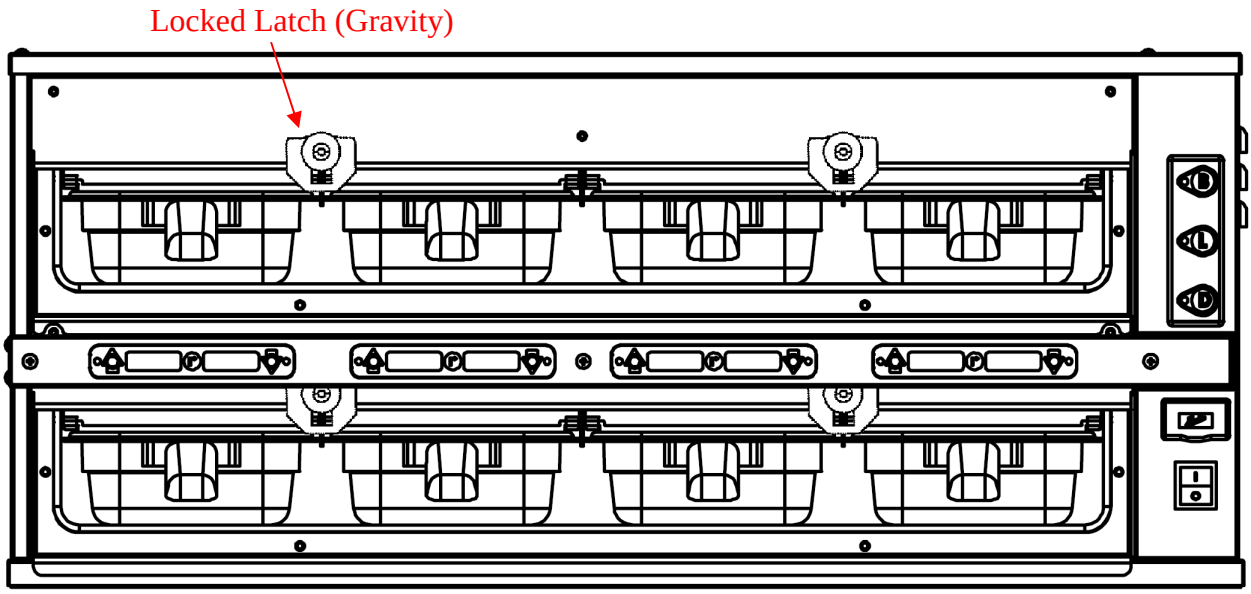

EX1013: Fig. 2 (enlarged).



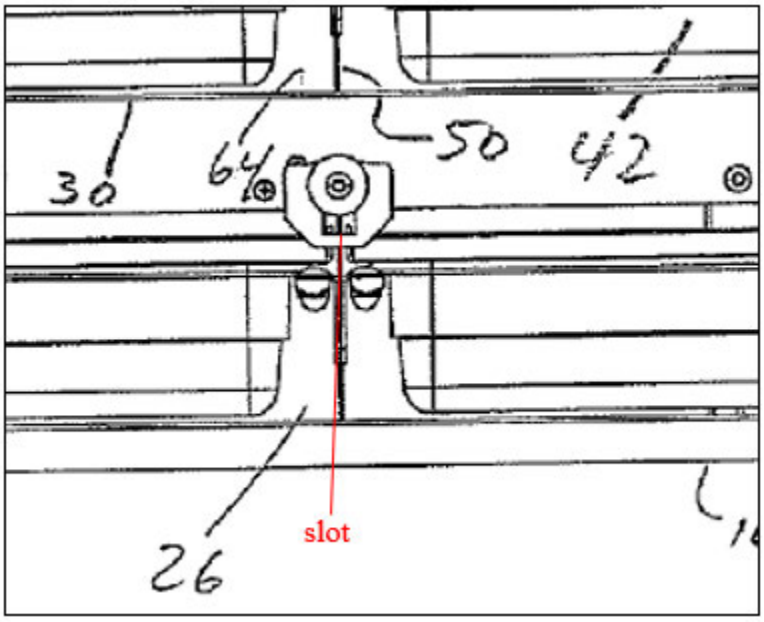

EX1017: Fig. 1 (enlarged).

**20.b.2/28.b.2**

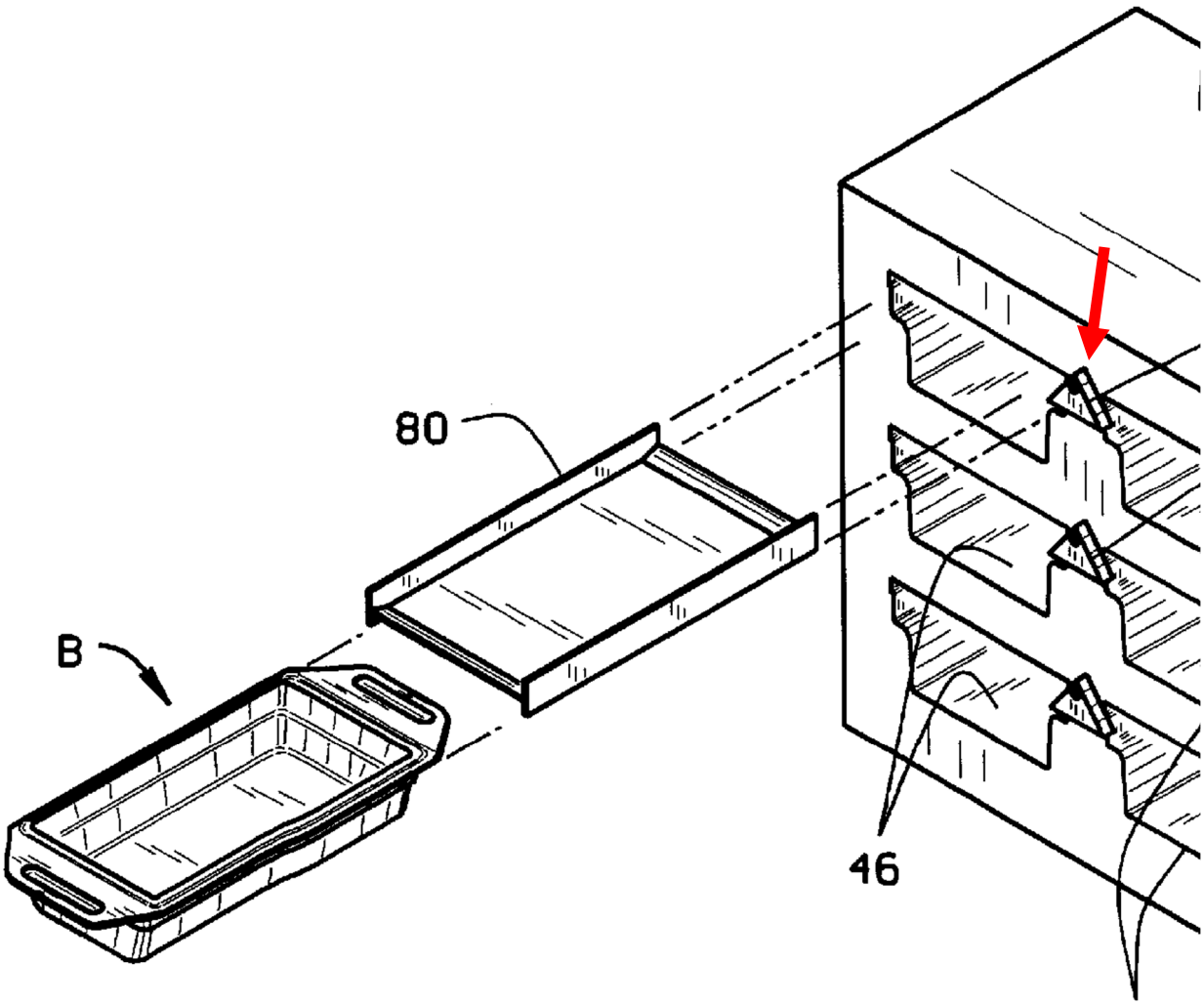
Gravity would bias the rotatable latch to the locked position (latch's center of gravity below the fastener). Section V(B); EX1013: Figs. 2, 9; EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; EX1003: ¶¶387-390, 399-400.




EX1005: 8 (modified).




EX1013: Fig. 2 (enlarged).




EX1017: Fig. 1 (enlarged).

**E. Claim 29**

Met as explained in Sections IV(1.g), V(C), IV(K), and IV(C)(14.g);

EX1003: ¶¶401-409.

## VI. GROUND 3: Claims 6, 17, and 25 Would Have Been Obvious Over IRHS Documents in view of Veltrop and Poole (If Necessary)

It also would have been obvious for the heating elements to include resistive wires in view of Veltrop and Poole (if necessary). EX1003: ¶¶410-411.

Veltrop's cabinet has electrically-resistive heater wires (67). EX1022: ¶¶[0010], [0025], Fig. 2; EX1003: ¶412.

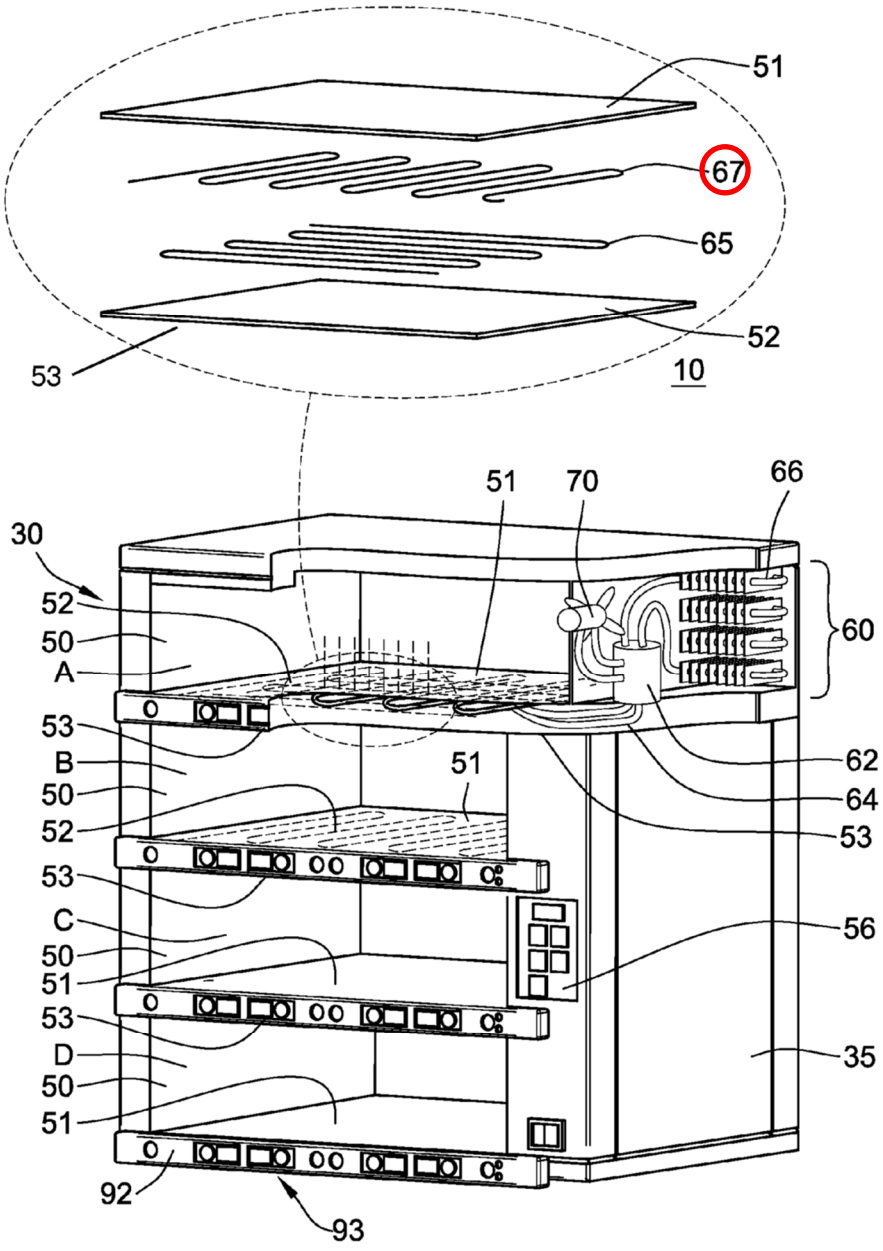
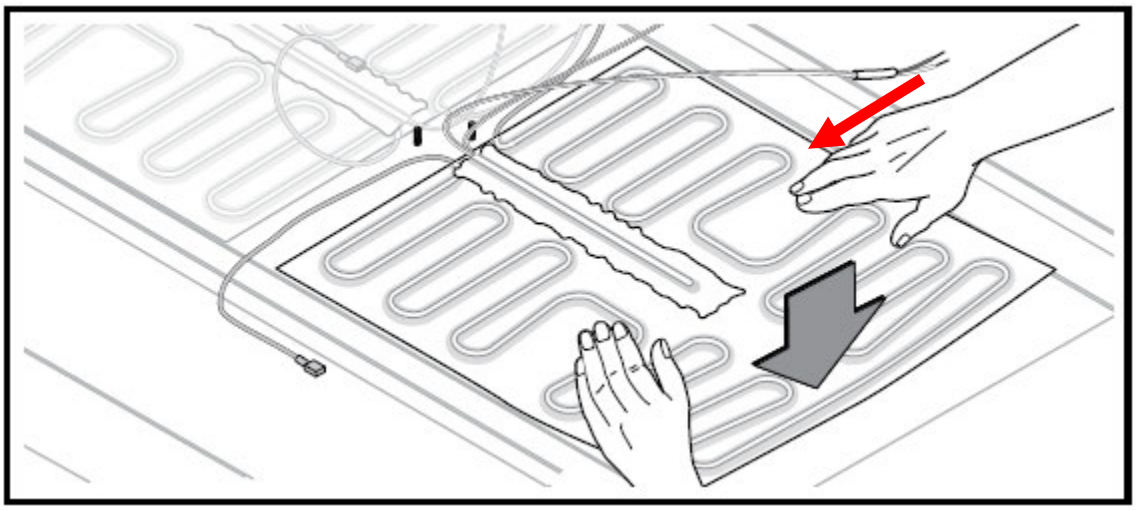



FIG. 2

EX1022: Fig. 2.

In view of Veltrop, it would have been obvious for IRHS24's lower/second heating element to comprise an electrically-resistive heater wire to generate heat. EX1003: ¶413. The IRHS Documents teach electrical heating elements. EX1003: ¶414. The POSA would understand an electrically-resistive wire is a suitable heat source for IRHS24's holding units. EX1022: ¶[0025]; EX1003: ¶¶414-415.

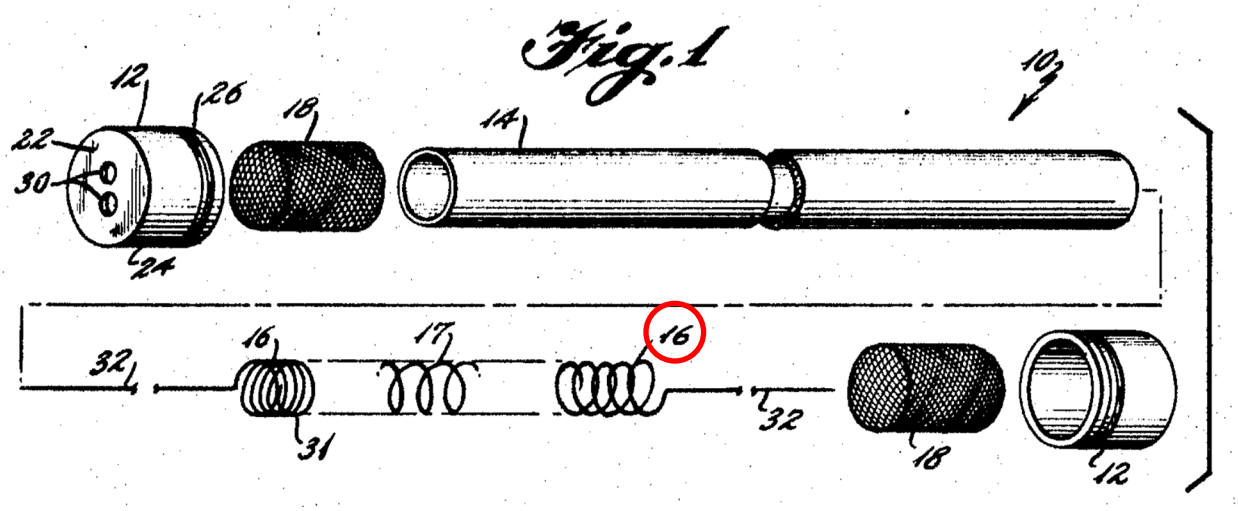


EX1008: 23.

This would have been using a known technique (electrically-resistive heater wire) to improve a similar device (lower heating elements of IRHS24) in the same way (electrically-resistive heater wire to heat compartment/food) with reasonable expectation of success (electrically controlled heating elements in food warming cabinets). EX1022: ¶[0025]; EX1003: ¶¶416-417.

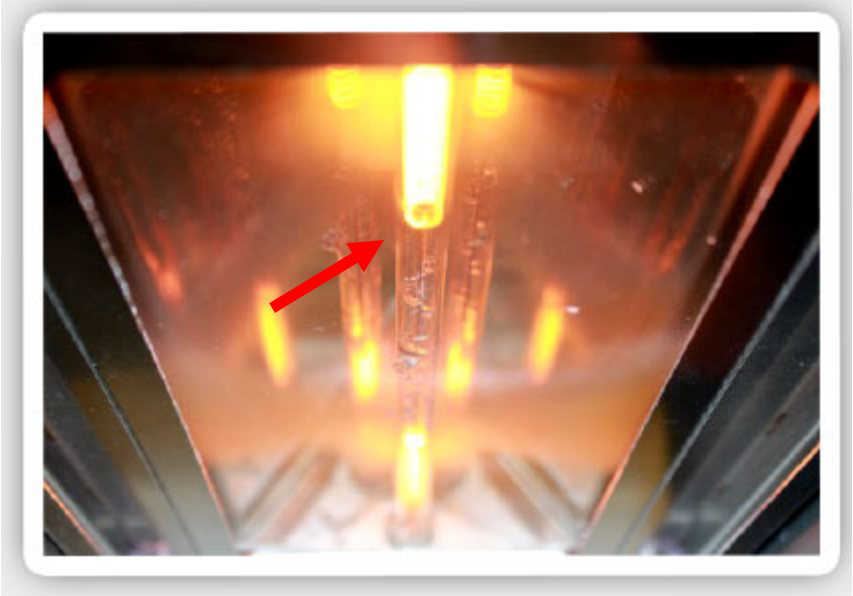
This renders obvious each lower (second) heating element comprising an electrically-resistive wire. EX1003: ¶418.

Poole teaches an "infrared quartz heater" with a resistance wire (16). EX1025: Title, 1:29-30, 2:6-7. EX1003: ¶419.




EX1025: Fig. 1.

In view of Poole, it would have been obvious to use infrared quartz heaters including resistive wires as the IR bulbs (upper/first heating elements) in IRHS24 to generate IR heat. EX1003: ¶420. Infrared quartz heaters have a "long operating life" with a "low failure rate" and lower cost. EX1025: 1:49-50, 3:1-4; EX1003: ¶420. The IRHS Documents disclose using quartz IR bulbs and Poole discloses suitable quartz IR bulbs. EX1003: ¶421.



EX1007: 11.

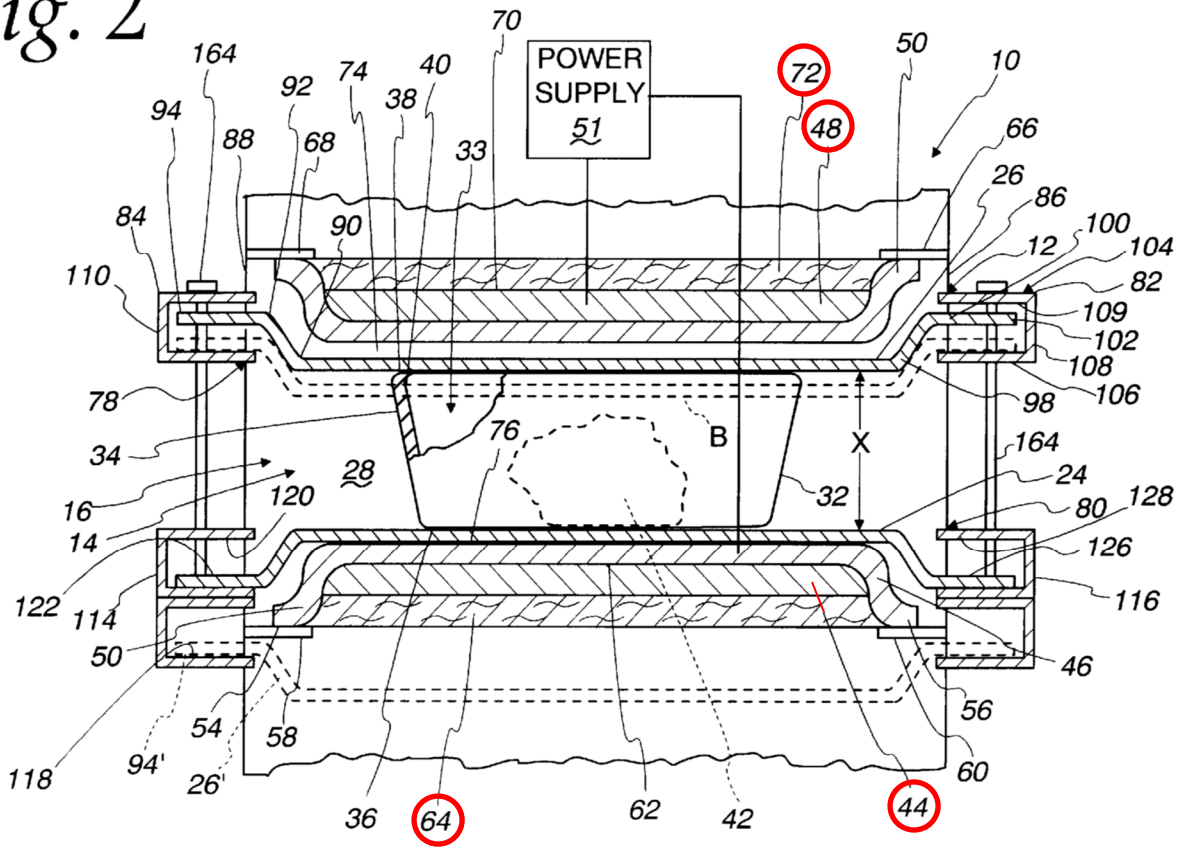
This would have been substituting one known element (infrared quartz heater) for another (IRHS24's IR bulbs) to obtain predictable results (IR food heating) with reasonable expectation of success (IRHS Documents disclose using quartz IR heaters). EX1003: ¶422; EX1007: 53.

This renders obvious each upper (first) heating element comprising an infrared quartz heater with resistive wire. EX1003: ¶¶423-424.

## VII. GROUND 4: Claim 22 Would Have Been Obvious Over IRHS Documents in view of Fortmann'967 and/or Fortmann'197

Fortmann'967 and Fortmann'197 teach insulation (64, 72) backing and between heating elements (44, 48, 501, 521-524). EX1018: 3:64-65, 4:4-38, Fig. 2; EX1014: 9:32-37, Figs. 1, 10; EX1003: ¶¶425-430.

Fig. 2




EX1018: Fig. 2.

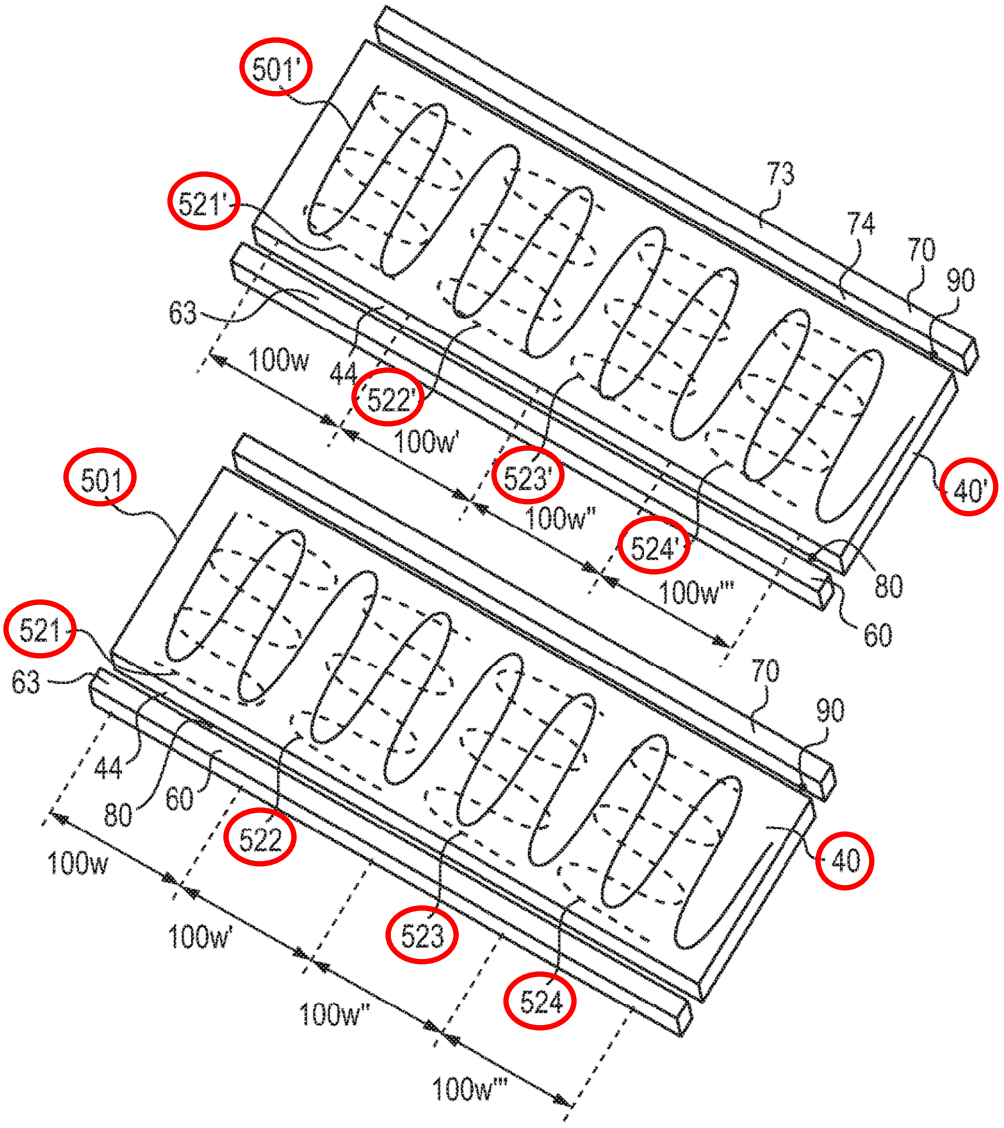



FIG. 10

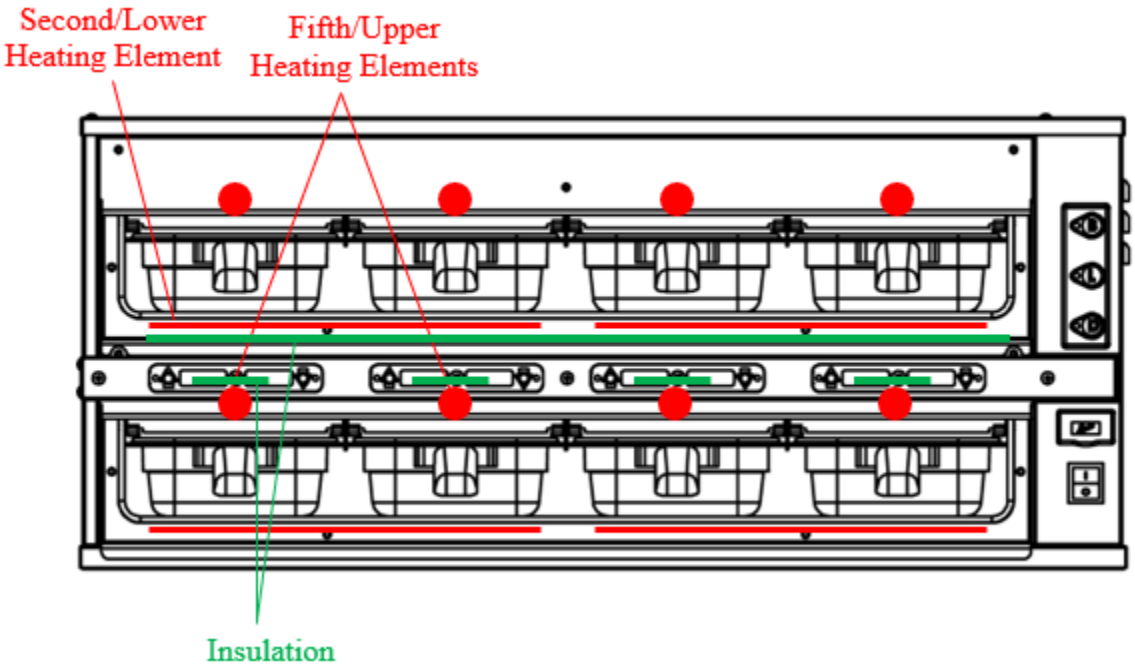
EX1014: Figs. 1, 10.

It would have been obvious to arrange insulation in IRHS24's shelf between the second and fifth heating elements to direct heat from the lower/second heating element into the first compartment and direct heat from the upper/fifth heating

element into the second compartment. EX1014: 9:32-37; EX1022: ¶[0025]; EX1003: ¶431. The insulation would increase compartment thermal separation, heating accuracy, and efficiency, and reduce power consumption. EX1003: ¶432.

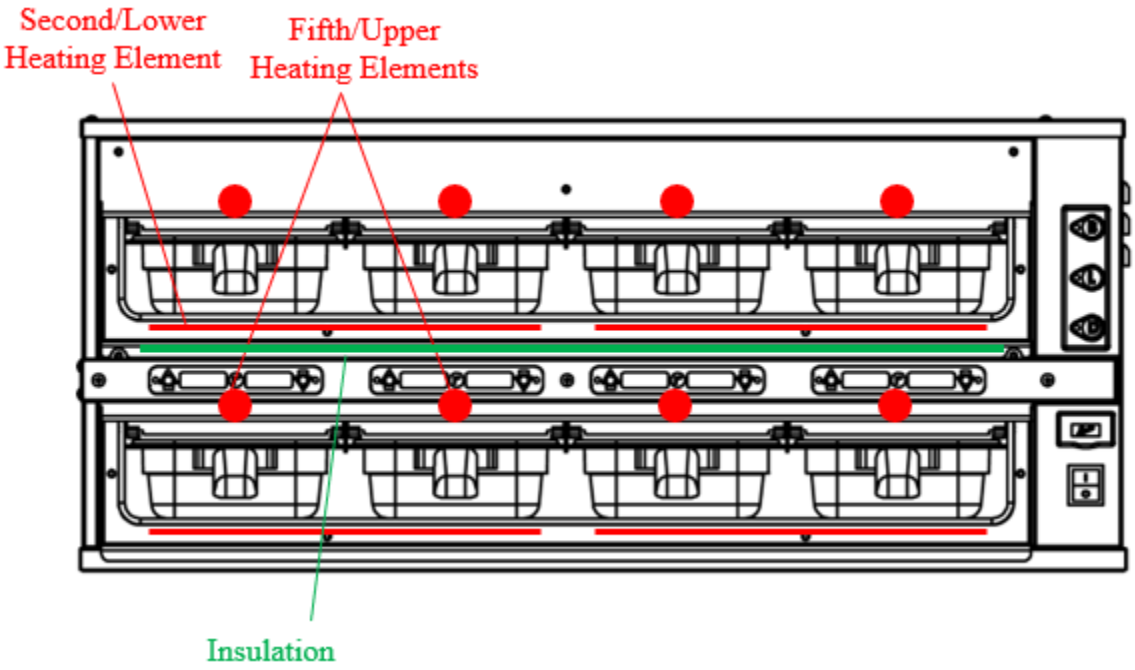
This modification would have been using a known technique (Fortmann'967's and/or Fortmann'197's insulation) to improve a similar device (IRHS24) in the same way (arrangement taught by Fortmann'967 and/or Fortmann'197) with reasonable expectation of success (similar units using insulation in intended manner). EX1018: 4:33-38; EX1014: 9:32-37; EX1003: ¶¶433-435.

Modified IRHS24 below includes insulation backing the shelf's heating elements per Fortmann'967. EX1018: 4:33-38; EX1003: ¶436.




EX1005: 8 (modified).

Modified IRHS24 below includes insulation between the shelf's heating elements per Fortmann'197. EX1014: 9:32-37; EX1003: ¶437.

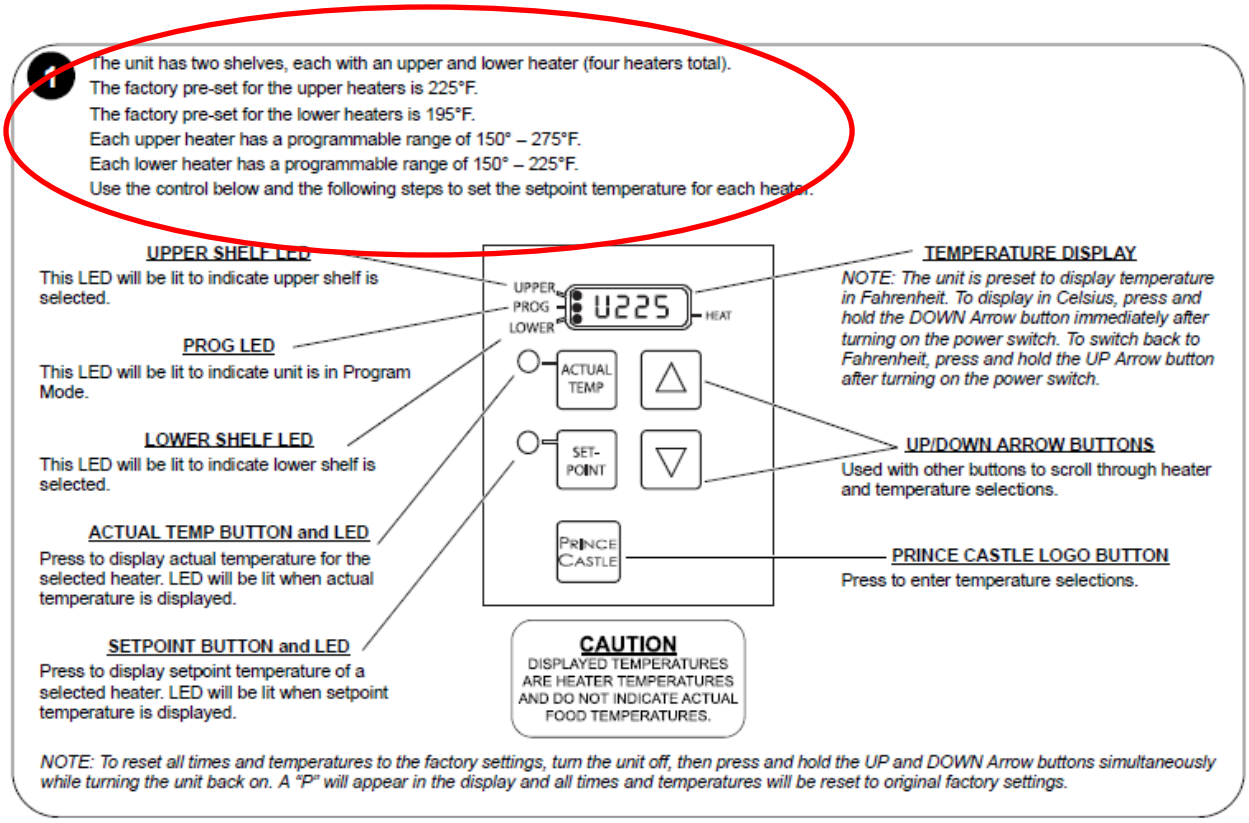



EX1005: 8 (modified).

Either configuration renders obvious insulative material between the second and fifth heating elements. EX1003: ¶¶438-439.

## VIII. GROUND 5: Claims 14-20 and 29 Would Have Been Obvious Over IRHS Documents in view of Hartfelder, Shei'099, Prince Castle, and Reese (If Necessary)

Prince Castle teaches default presets 225°F for upper heaters (max setting 275°F) and 195°F for lower heaters (max setting 225°F). EX1009: 22, 40; EX1003: ¶¶440-444.




EX1009: 40.

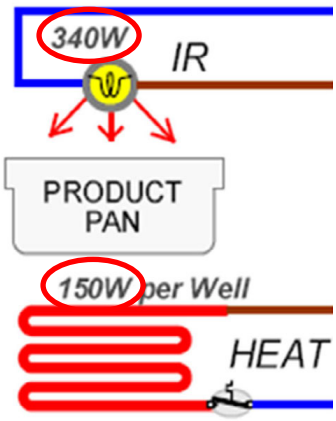
Reese teaches functions for turbo boost for upper IR heat. EX1027: ¶¶[0001], [0019], [0021], [0025]; EX1003: ¶¶445-447.

In view of Prince Castle, IRHS Documents, and/or Reese, it would have been obvious to adapt each upper (first) IR element to output more heat energy than the respective lower (second) heating element (higher target temperature, turbo boost heat, and/or higher wattage rating (EX1008: 64)) to help overcome distance between the upper IR element and the food, counteract evaporative cooling, maintain food surface temperature/texture, compensate for upper IR energy radiating in all directions, and/or permit the cook "to re-crisp [fried] food,"

"melt cheese," and/or "brown [food]" with the upper IR element. EX1027: ¶[0021]; EX1006: 1; EX1003: ¶¶448-454. This would help "provide optimum environment" and "minimize temperature distribution from top to bottom." EX1006: 1; EX1007: 51; EX1003: ¶455.

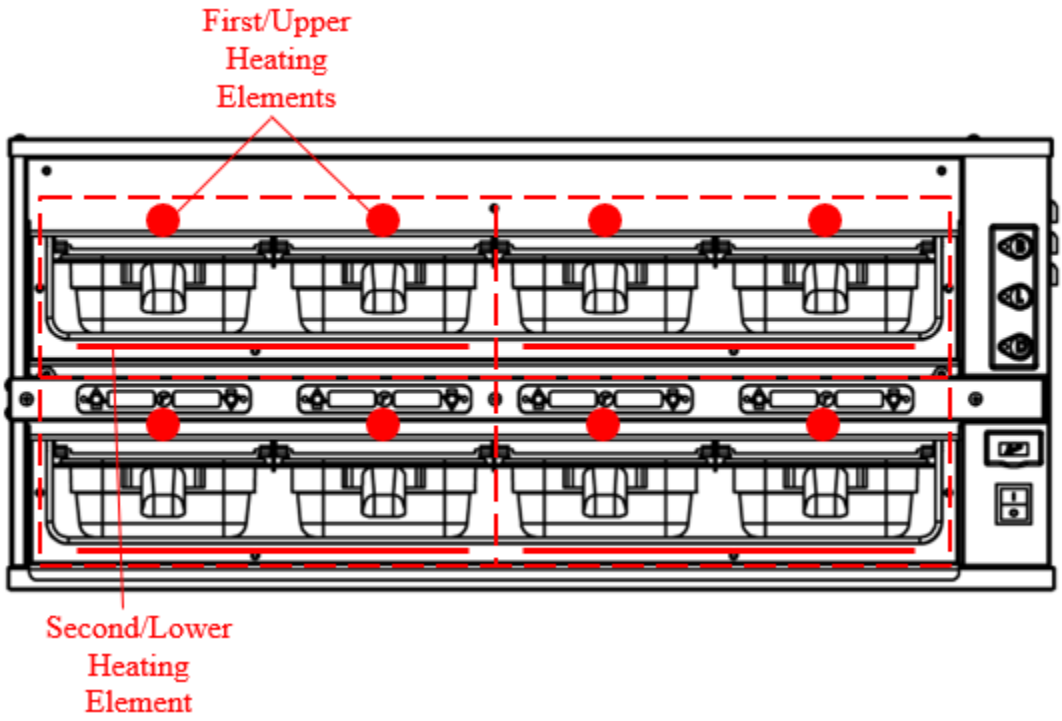
This would have been application of a known technique (Prince Castle's upper heaters outputting more heat than lower heaters) to improve a similar device (IRHS Holding Unit) in the same way (higher setpoint temperatures for upper heating elements than lower heating elements). EX1003: ¶456.

The POSA would have had reasonable expectation of success given the IR upper elements operate independently of the lower elements, can pulse on/off as needed, and are higher wattage (340W) than the lower elements (300W). EX1006: 1; EX1003: ¶456.




EX1008: 64.

This renders obvious the first/upper heating element being adapted to output more heat energy than the second/lower heating element (higher target temperature, turbo boost functionality, and/or higher wattage rating). EX1003: ¶¶457-459.




EX1005: 8.

In this Ground 5, the limitations of claims 14-20 and 29 are met for at least the reasons explained in Sections IV-VI, with at least limitations 14.g and 29.d met as described above. EX1003: ¶¶460-461.

## IX. GROUND 6: Claims 1-29 Would Have Been Obvious Over IRHS Documents in view of Hartfelder, Shei'099, Veltrop, Poole, Fortmann'967, Fortmann'197, Prince Castle, Reese, and Shei'155 (If Necessary)

It would have been obvious to modify IRHS24 per below (if necessary).

EX1003: ¶¶462-464.

Veltrop teaches conductively coupling a heater wire (67) to an upper plate (51). EX1022: ¶¶[0025], [0050]; EX1003: ¶465.

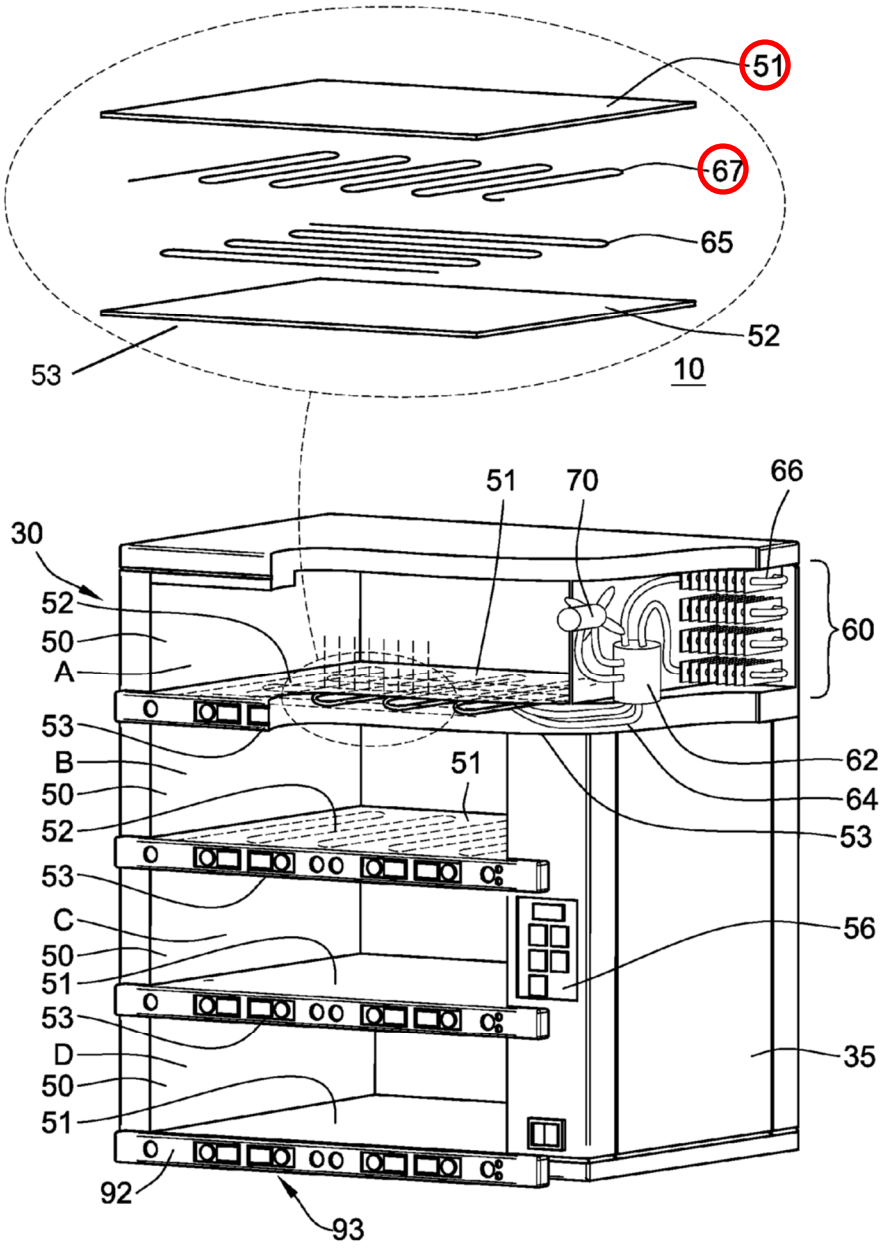
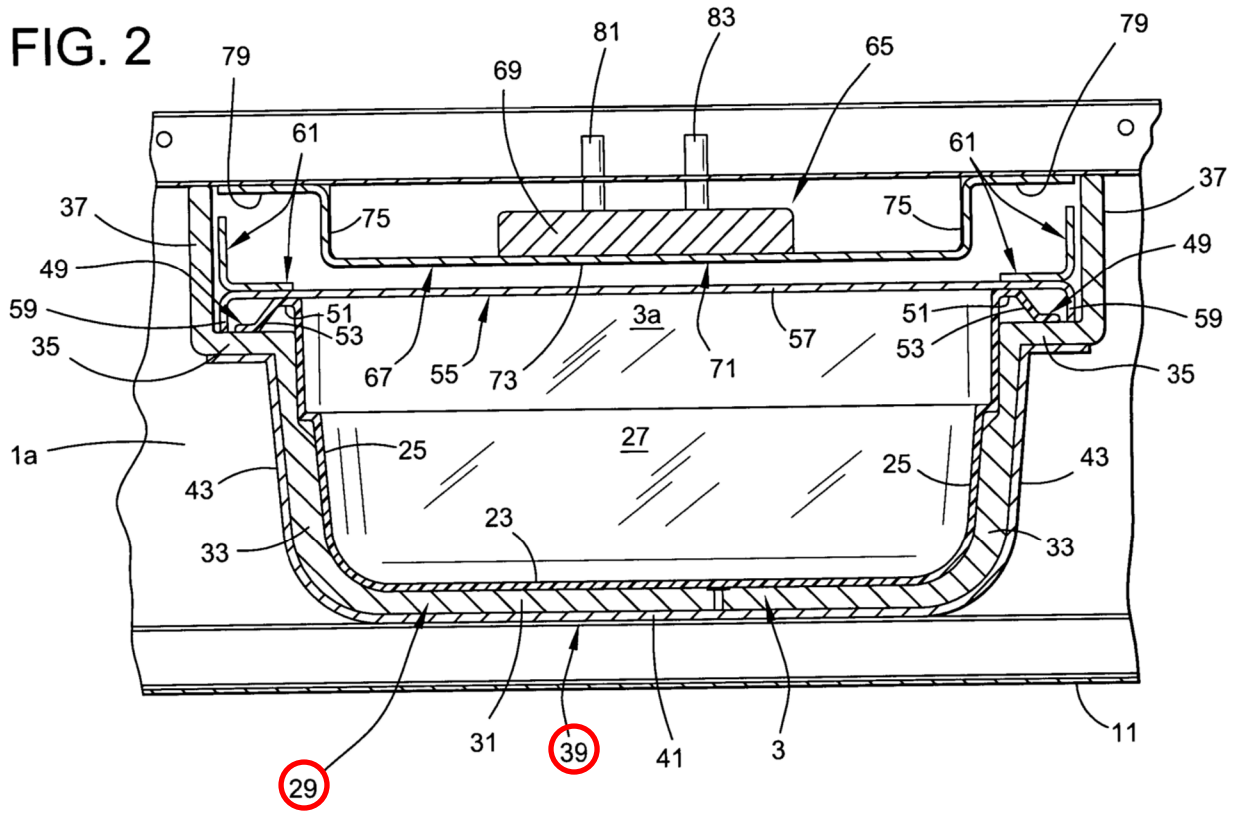



**FIG. 2**

EX1022: Fig. 2.

Shei'155 teaches conductively coupling an electrical heating element (39) to a heatsink (29). EX1016: ¶[0039]; EX1003: ¶466.




EX1016: Fig. 2.

In view of Veltrop and/or Shei'155, it would have been obvious for IRHS24's lower heating elements (second and fourth elements) to be conductively coupled to the heatsink plates because conduction effectively and efficiently transfers heat to heatsinks and pans. EX1010: ¶[0020]; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1022: ¶[0050]; EX1003: ¶467.

This would have been using a known technique (Veltrop's and Shei'155's construction) to improve a similar device (IRHS24's heatsink) in the same way (conductive heat transfer from heating elements to heatsink and food) with reasonable expectation of success (conduction heating being well-known for

warming cabinets). EX1010: ¶[0020]; EX1016: Fig. 2, ¶[0039]; EX1017: Fig. 3, 4:51-53; EX1020: ¶[0020]; EX1022: ¶[0050]; EX1003: ¶¶468-469.

This renders obvious the IRHS24's lower heating elements heating the heatsink plates and pans through conduction. EX1003: ¶470.

Moreover, Veltrop teaches aluminum for shelf upper plates (51). EX1022: ¶[0023]; EX1003: ¶471.

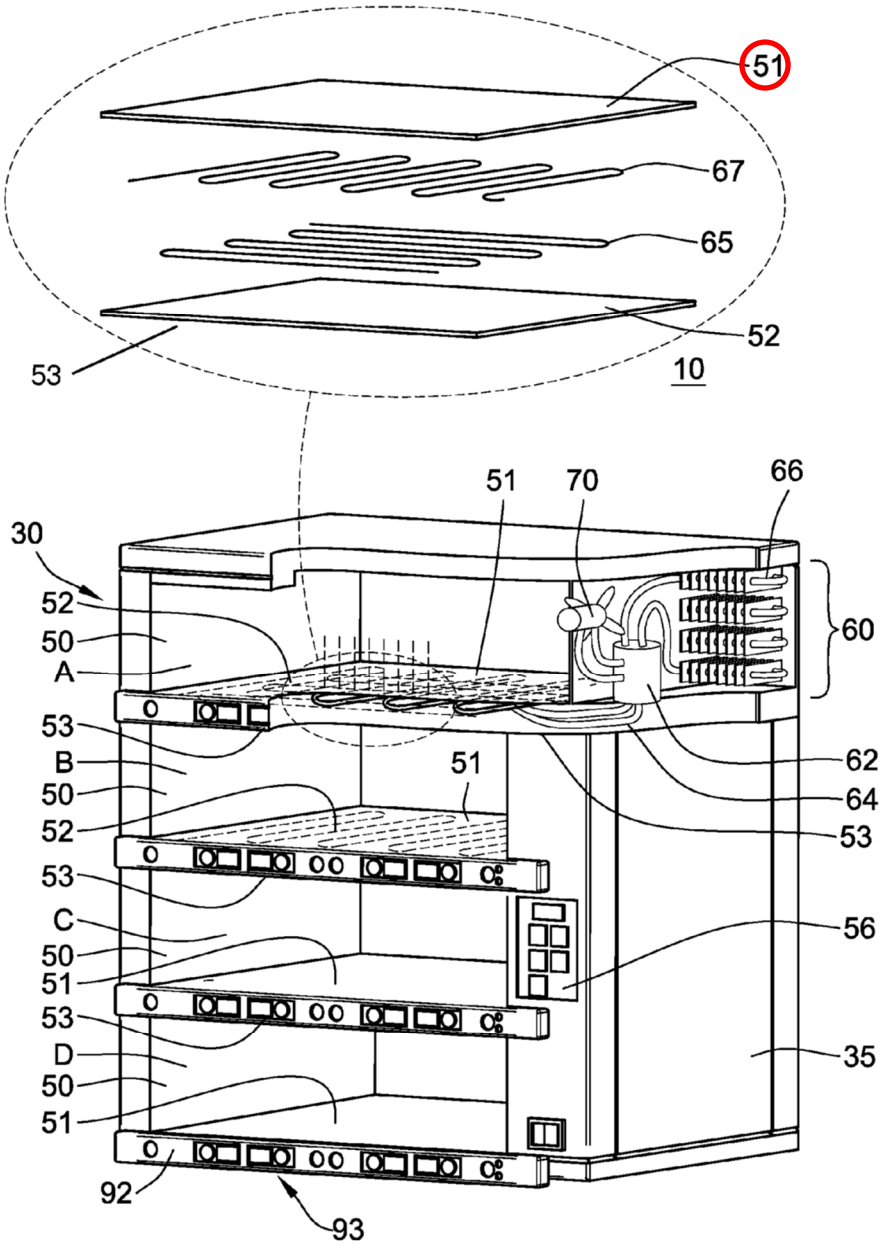



**FIG. 2**

EX1022: Fig. 2.

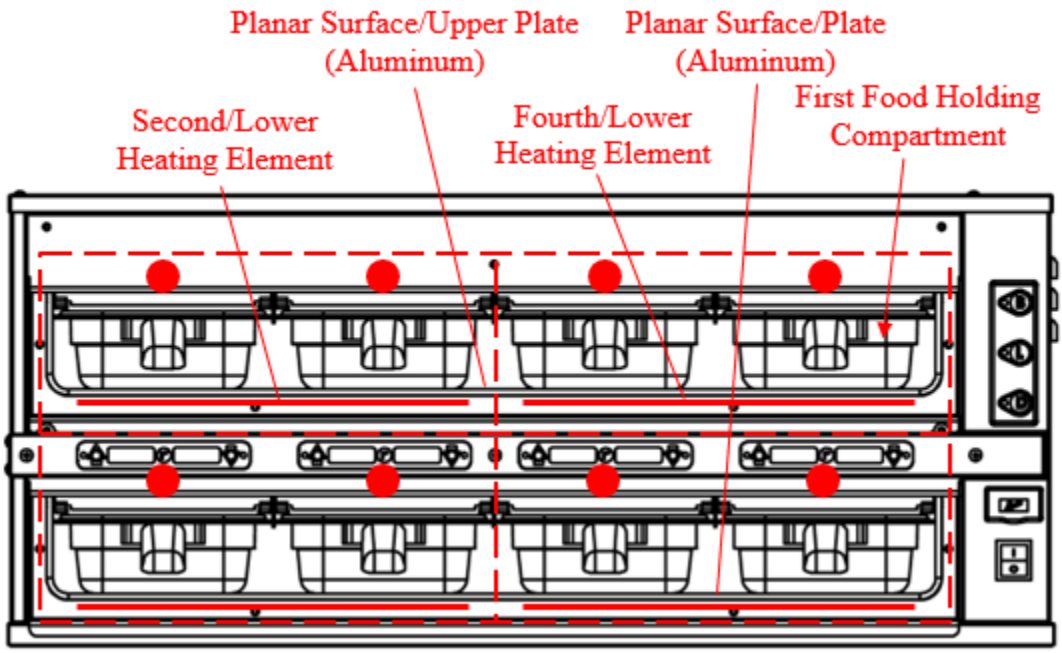
Shei'155 teaches aluminum heatsinks (29). EX1016: ¶[0039]; EX1003: ¶472.

In view of Veltrop and/or Shei'155, it would have been obvious to make IRHS24's heatsink plates from aluminum as preferred material that "conducts heat well." EX1017: 3:32-33; EX1022: ¶[0023]; EX1020: ¶¶[0021]-[0023]; EX1021: ¶¶[0020]-[0022]; EX1003: ¶473. Further, aluminum is relatively lightweight (easier to ship) and inexpensive. EX1003: ¶474.

This would have been using a known technique (aluminum from Veltrop/Shei'155) to improve a similar device (IRHS24's heatsink) in the same way (aluminum surfaces supporting pans for localized heating) with reasonable expectation of success (known suitability of aluminum shelves having multiple zones in warming cabinets). EX1016: ¶[0039]; EX1020: ¶¶[0021]-[0023]; EX1021: ¶¶[0020]-[0022]; EX1022: ¶[0023]; EX1003: ¶¶475, 477-479.

This renders obvious the IRHS24's heatsink plates comprising aluminum, thereby making the heatsink's planar surfaces/upper plate comprise thermally conductive aluminum material. EX1003: ¶476.

In this Ground 6, the limitations of claims 1-29 are obvious for at least the reasons explained in Sections IV-VIII, with at least limitations/claims 1.c.3, 8, 11, 14.c.3, 19, 21.c.3, 21.j.1-21.j.3, and 27 further being obvious as described above and demonstrated below. EX1003: ¶¶480-481.

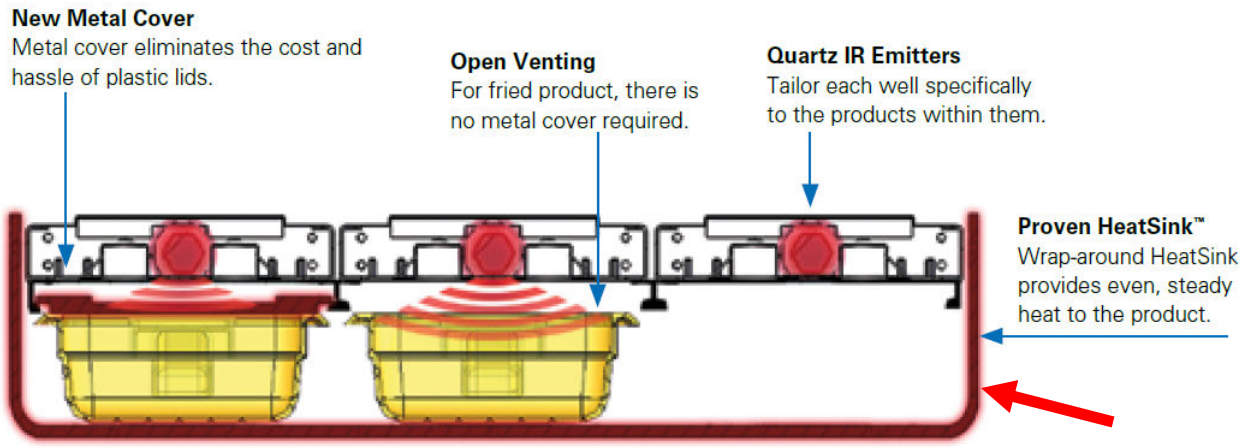



EX1005: 8.

## X. GROUND 7: Claims 1-29 Would Have Been Obvious Over IRHS Documents in view of Hartfelder, Shei'099, Veltrop, Poole, Fortmann'967, Fortmann'197, Prince Castle, Reese, and Shei'155 (If Necessary)

It would have been obvious to modify the IRHS Documents per below (if necessary). EX1003: ¶¶482-484.

IRHS24's heatsink sides extend upwardly. EX1003: ¶483.



EX1007: 53.

Hartfelder and Veltrop teach flat heatsinks (30, 51). EX1013: ¶¶[0030], [0037]; EX1022: ¶¶[0016], [0022], [0025]; EX1003: ¶¶485-486.

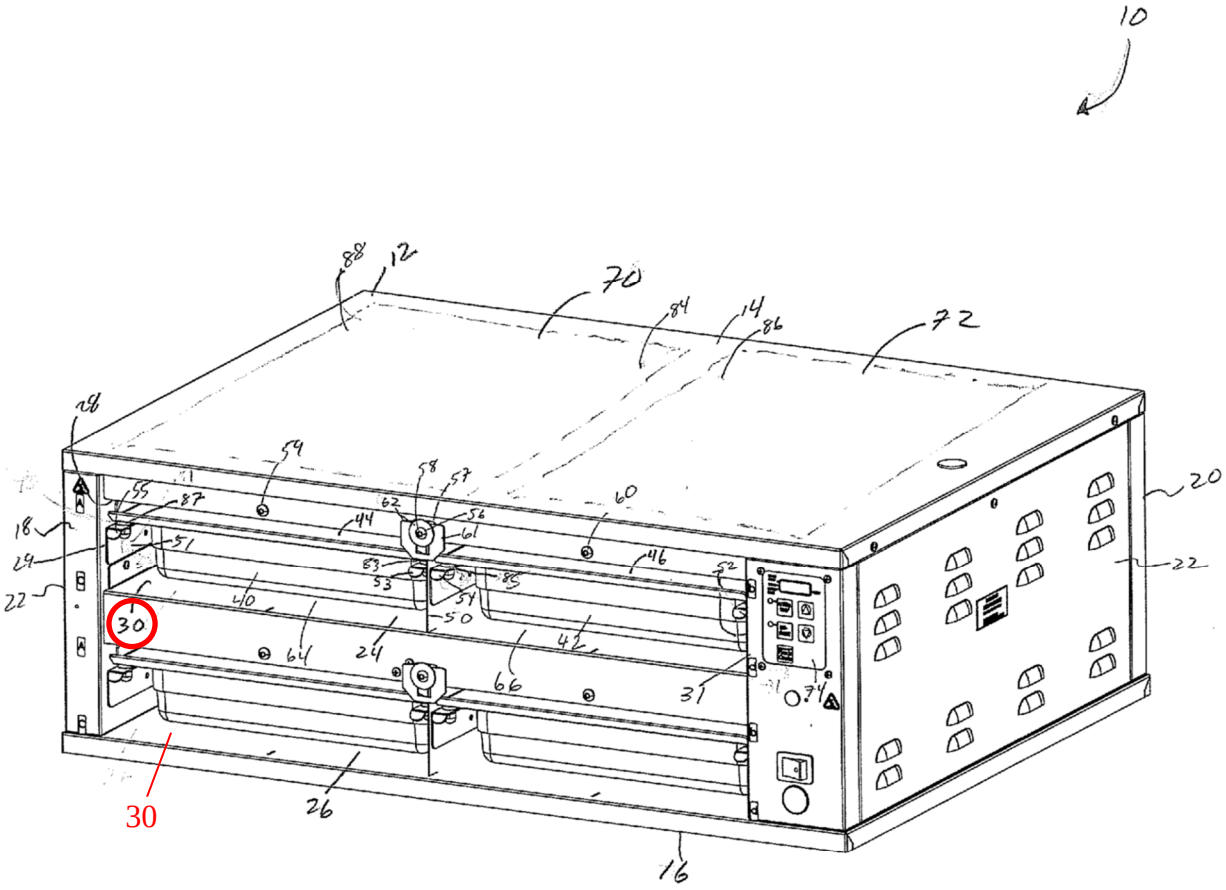



FIGURE 1

EX1013: Fig. 1.

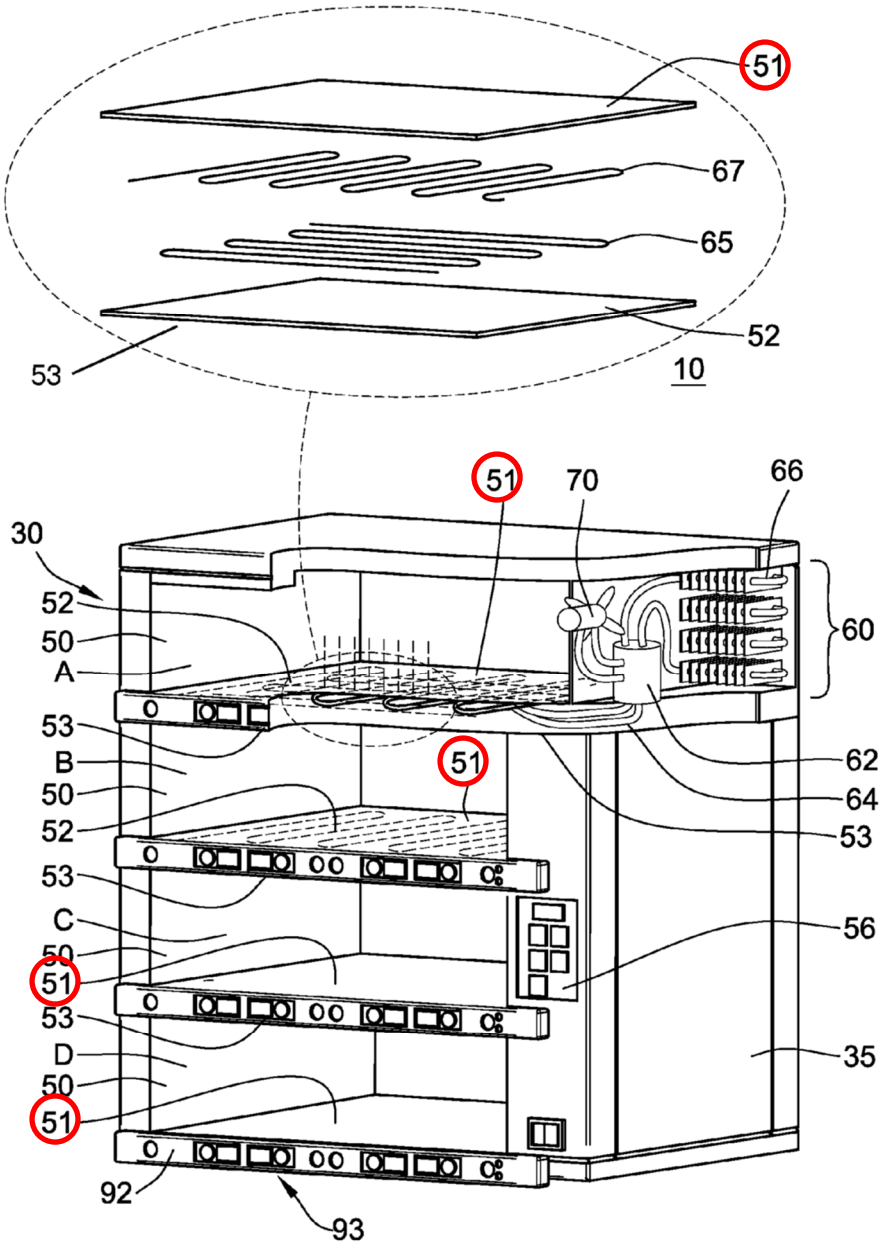



**FIG. 2**

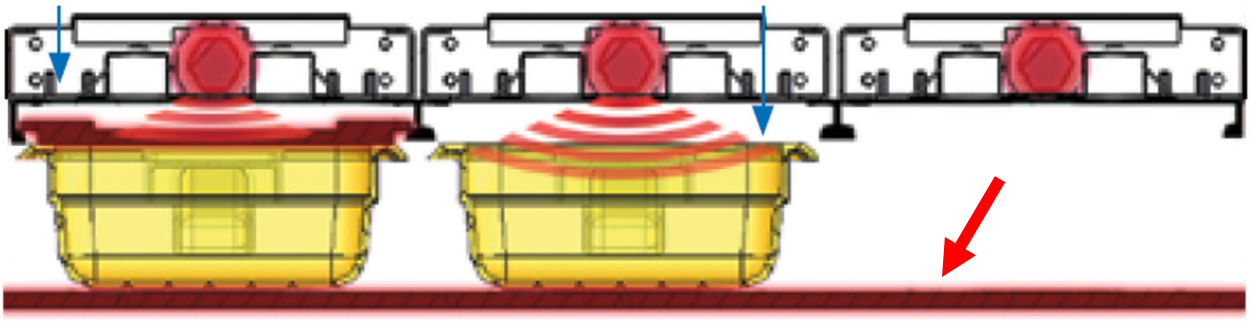
EX1022: Fig. 2.

In view of Hartfelder and/or Veltrop, it would have been obvious to modify IRHS24's heatsink to be planar (omitting upward sides). EX1003: ¶487. This

would reduce IRHS24's width, furthering the small footprint goal. EX1007: 53; EX1003: ¶488. Modified IRHS24 would also be cheaper to manufacture (less material, easier to construct, etc.) and cheaper to ship (smaller package, less weight) and provide better heating consistency (compartment sides vs. middle). EX1003: ¶¶489-49493.

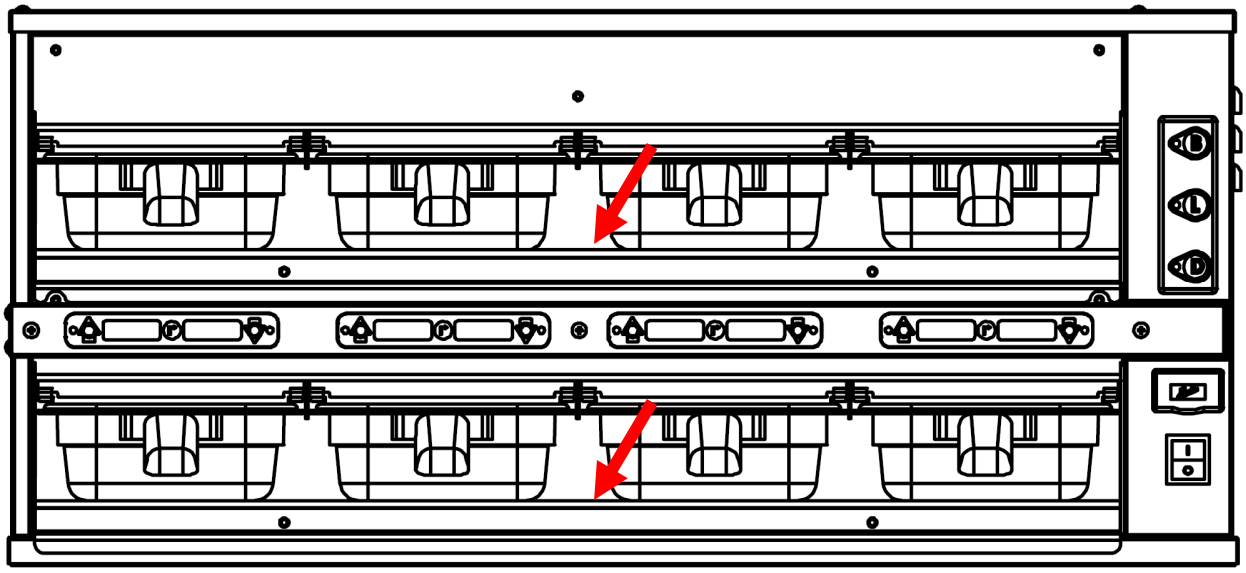
This would have been application of a known technique (flat heatsink) to improve a similar device (IRHS24) in the same way (flat heatsinks) with reasonable expectation of success (minor reconfigurations demonstrated in the art). EX1013: Fig. 1; EX1022: Fig. 2; EX1020: ¶¶[0021]-[0023]; EX1003: ¶¶494-495.

IRHS24's modified heatsink is represented below. EX1003: ¶496.

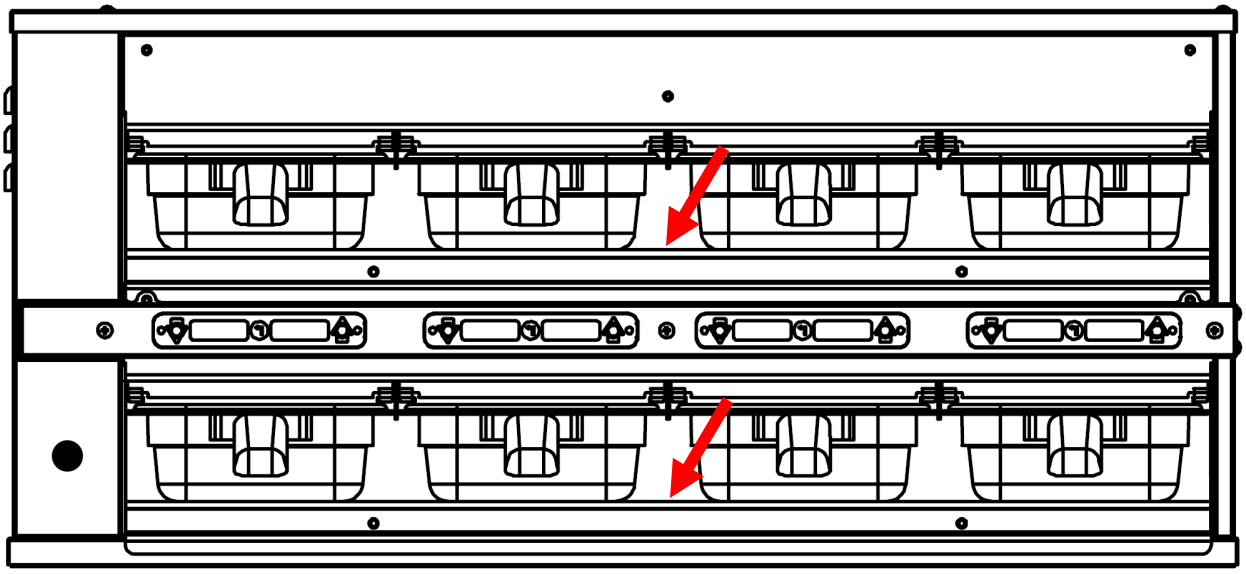


EX1007: 53 (modified)

Modified IRHS24 having flat heatsinks is shown below. EX1003: ¶497.



EX1005: 8 (modified-front).

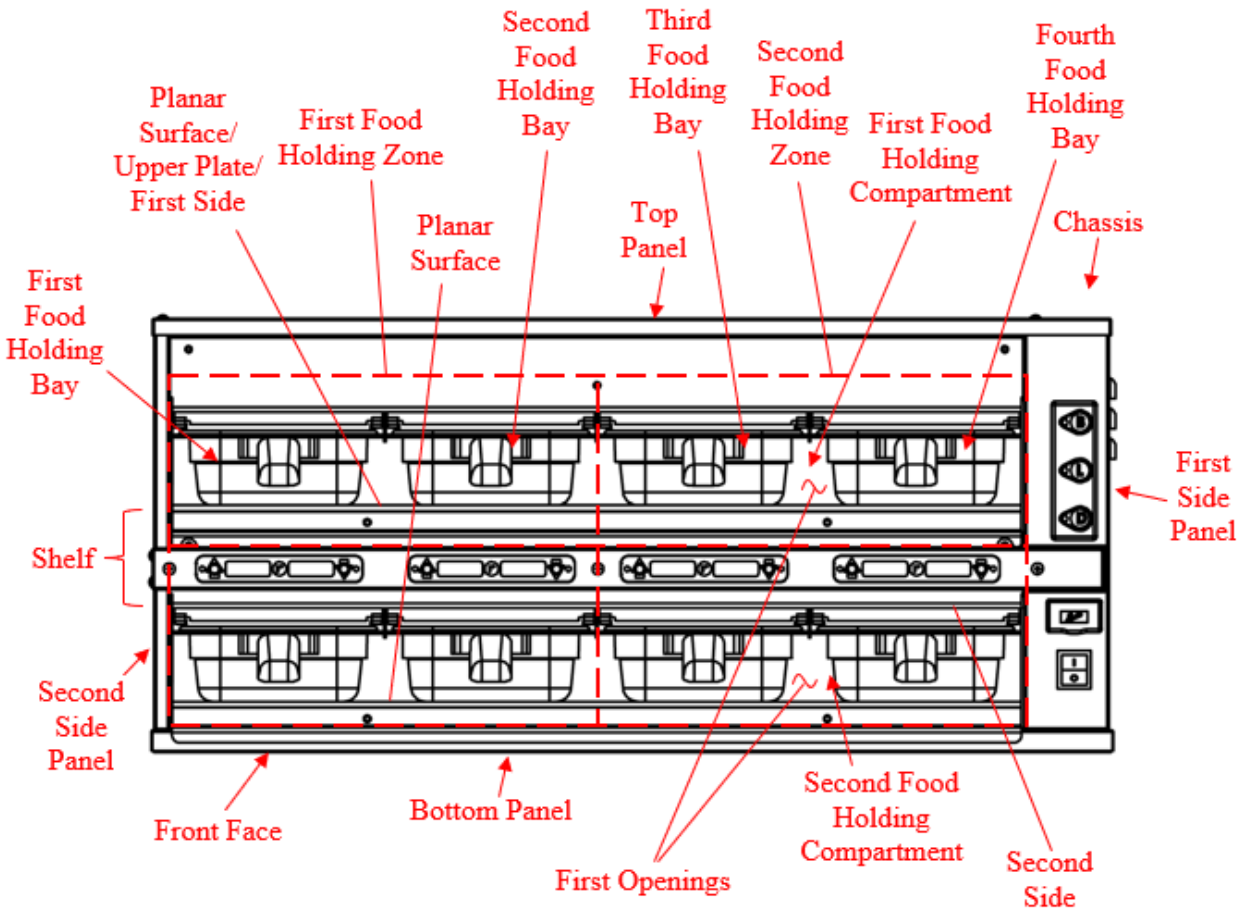


EX1005: 8 (modified-rear).

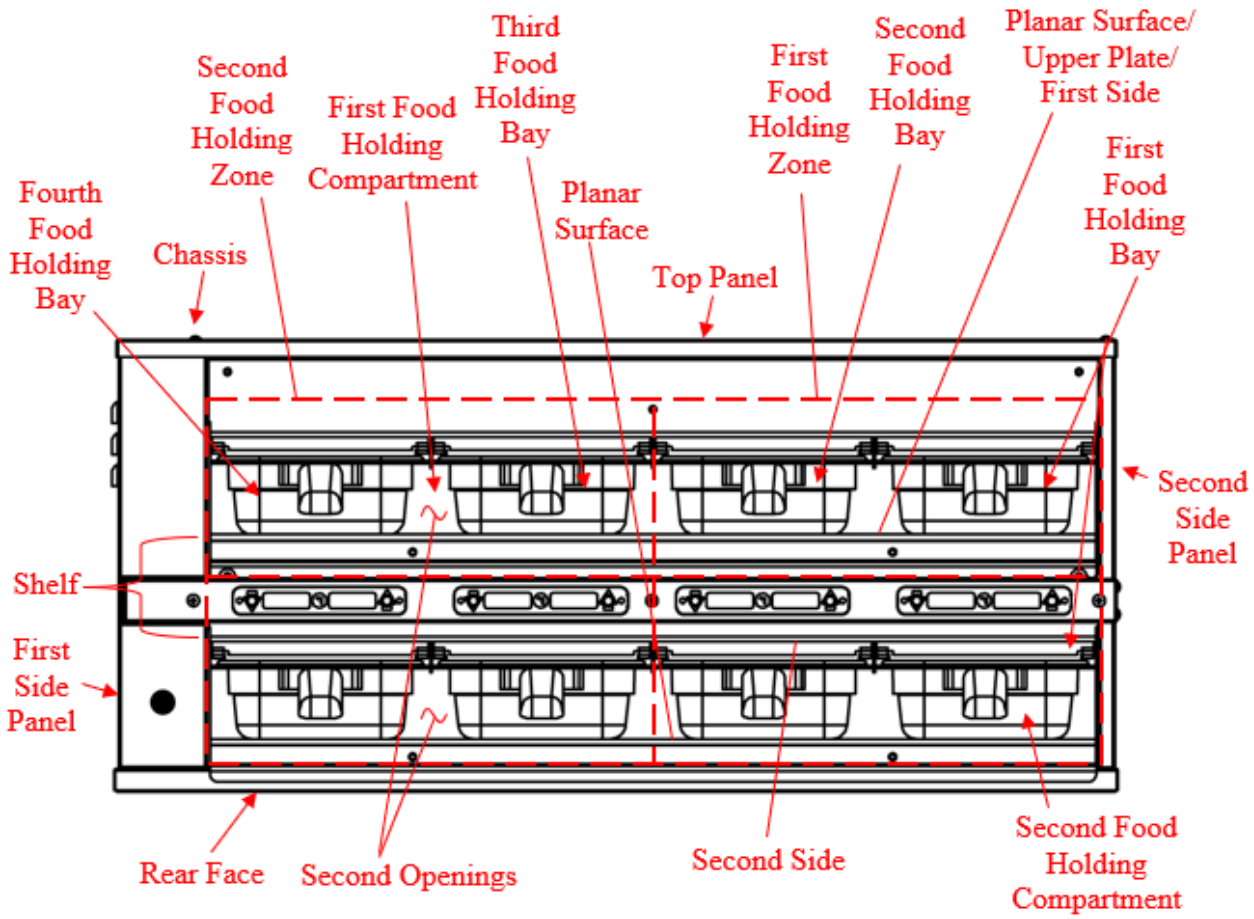
In this Ground 7, the limitations of claims 1-29 are obvious for at least the reasons explained in Sections IV-IX, with at least limitations/claims 1.a, 1.b.1, 1.c.1, 1.f.1, 4.a.2, 7, 14.a, 14.b.1, 14.c.1, 14.f.1, 15.a.2, 18, 21.a, 21.b.1, 21.c.1,

21.f.1, 21.g.1, 21.i.1, 21.j.1, 23.a.2, and 26 further being obvious as demonstrated below. EX1003: ¶498.

1.




EX1005: 8 (modified-front).




EX1005: 8 (modified-rear).

## XI. GROUND 8: Claim 3 Would Have Been Obvious Over IRHS Documents in view of Hartfelder, Veltrop, Shei'155, Vaseloff, and McMillan (If Necessary)

It would have been obvious to modify IRHS24 in view of Vaseloff and McMillan (if necessary). EX1003: ¶¶499-501.

Each bay (34) of Vaseloff's food holding device has a corresponding display/control group (display device (60), timer status indicator (62), timer button (64)). EX1026: 2:60-63, 3:48-51, 4:5-6, 4:20-33, 4:48-49, 6:51-52, Fig. 4; EX1003: ¶¶502-508.

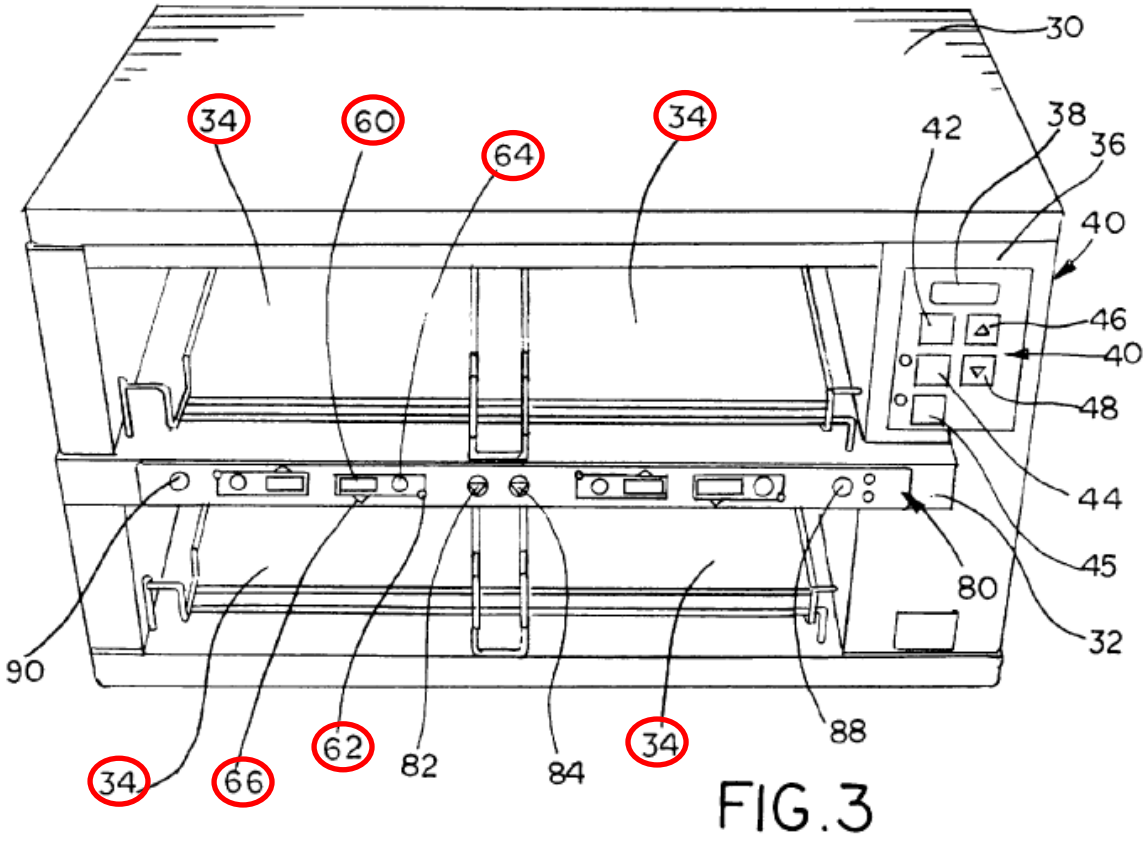



FIG. 3

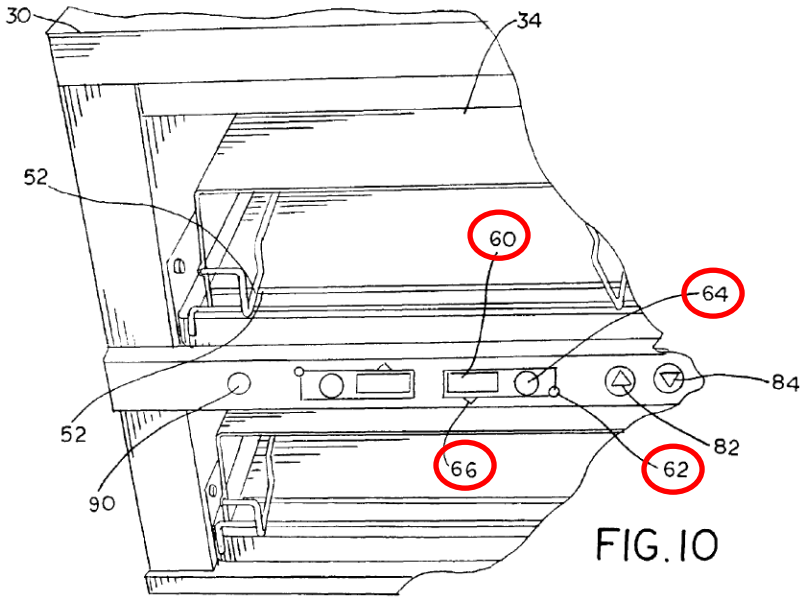



FIG. 10

EX1026: Figs. 3, 10.

Transfer button (90) transfers pan and associated information (hold time, temperature settings) from one bay to another. EX1026: 6:51-7:20, 9:27-64; 10:26-33; EX1003: ¶509.

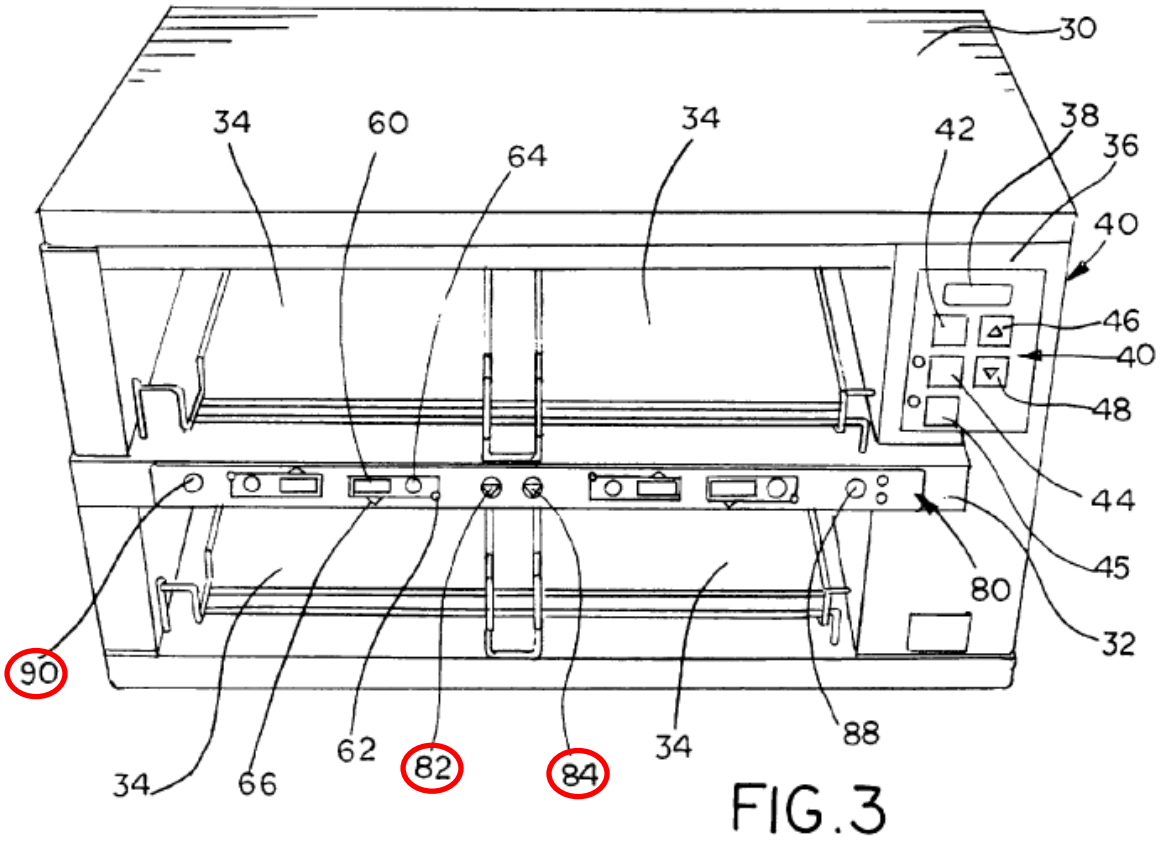
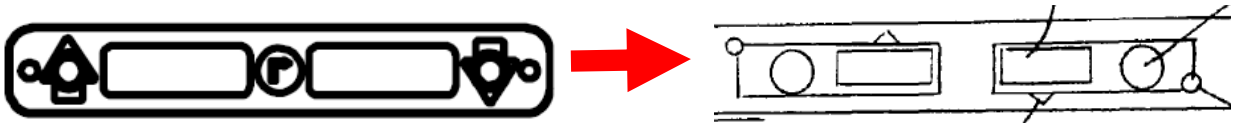


FIG.3

EX1026: Fig. 3.

It would have been obvious to replace the controls of IRHS24 timer bars with Vaseloff's timer module controls (in the IRHS24's timer bar's housing). EX1003: ¶510. For example, each IRHS24 control/display group (below left) would be replaced by two groups (below right) of Vaseloff's display devices, timer status indicators, timer buttons, and indicator arrows. EX1003: ¶¶510-511.



EX1007: 8. EX1026: Fig. 10.

Vaseloff's controls would add convenience, flexibility, and pan transfer capability, and some users may find Vaseloff's controls to be more intuitive, to display more information, and/or to more clearly display or associate information with the respective bays. EX1026: 4:20-22, 4:26-29, 57-58, 6:1-25, 6:65-7:20; 11:35-38; EX1003: ¶¶512-513. This would have been application of a known technique (timer bar controls) to improve a similar device (IRHS24's timer bars) in the same way (displays and controls for each pan location/bay). EX1003: ¶514.

The POSA would have had reasonable expectation of success because Vaseloff's "food timing system [] can be applied to any food preparation and storage device." EX1026: 11:35-38; EX1003: ¶515. In modified IRHS24, Vaseloff's controls (e.g., transfer button, and each display device, timer status indicator, timer button) would be connected to IRHS24's controller (the POSA modifying any connections/programming as needed). EX1005: 25; EX1003: ¶516.

McMillan teaches zoned bay heating and message areas (183a-d) for each bay to display actual and setpoint temperatures when a temperature key (187) is pressed. EX1019: 4:36-59, 10:10-33, 10:43-58; EX1003: ¶¶517-521. A program key (188) allows the user to set temperatures. EX1019: 10:43-58; EX1003: ¶522.

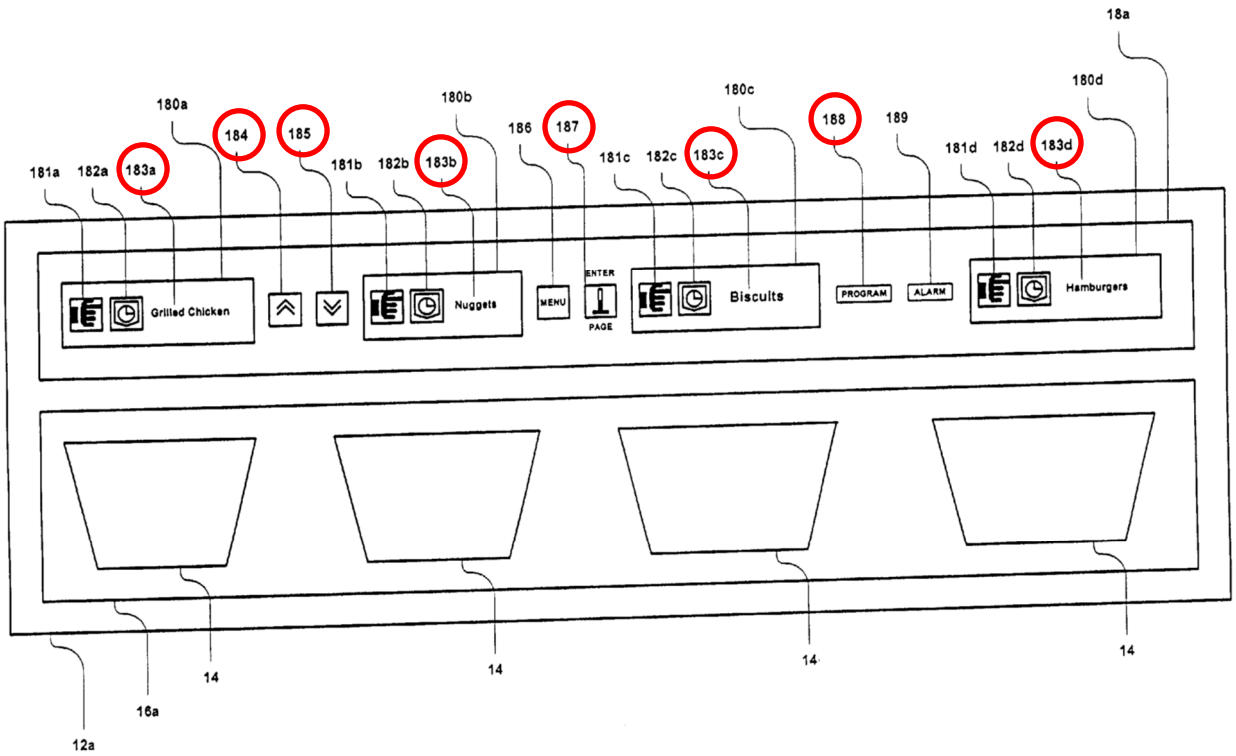



Fig. 5a

EX1019: Fig. 5a.

In view of McMillan, it would have been obvious to modify the IRHS24/Vaseloff timer bars to permit displaying current and setpoint temperatures in Vaseloff's display device for each bay. EX1019: 10:30-32; EX1003: ¶523. The POSA would have implemented Vaseloff's arrow buttons (taught as increasing/decreasing parameters) or McMillan's arrow keys to "allow an operator to increase and decrease displayed values (e.g., temperature, time)," per McMillan. EX1026: 7:30-32; EX1019: 10:46-48; EX1003: ¶¶524-525. Incorporating McMillan's arrow, temperature, and/or program key(s)/button(s) "allow[s] a user to display temperature information, enter operational changes, and/or … change or

select … holding temperatures." EX1019: 10:52-58; EX1003: ¶526. The POSA would know how to implement the keys/buttons as physical buttons. EX1026: 2:60-3:19 (teaching physical programming buttons).[2] EX1003: ¶527.

The POSA would program the IRHS24/Vaseloff timer bars to show current and setpoint temperatures for each bay in the associated display and change the setpoint temperature for individual bays via the up-arrow and down-arrow, temperature, and/or program buttons, similar to McMillan's teachings. EX1019: 10:6-8, 10:20-33, 10:42-58; EX1003: ¶¶530-531. This would provide easy, fast, and intuitive ways to view current and setpoint temperatures and change setpoint temperatures where easily associated with the corresponding bay. EX1019: 10:6-10; EX1026: 4:20-22, 4:25-30; EX1003: ¶¶532-533.

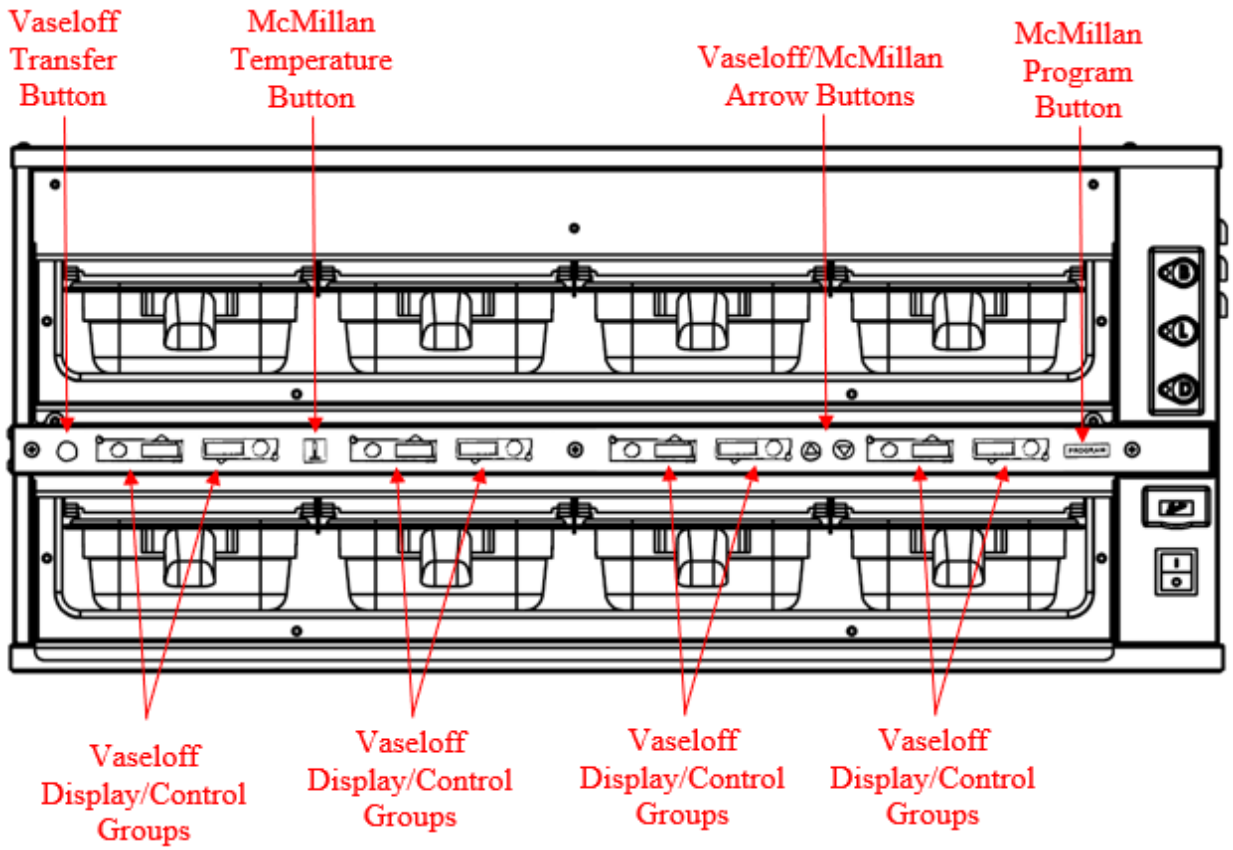
This would have been application of a known technique (actual and setpoint temperature display and changing setpoint temperature of McMillan) to improve a similar device (IRHS24/Vaseloff) in the same way (displaying actual and setpoint temperatures and setting temperature) with reasonable expectation of success

[2] The IRHS24/Vaseloff activity button would be replaced with McMillan's temperature and/or program button(s) or omitted for IRHS24's existing daypart interface. EX1026: 7:46-8:39; Section IV(D)(21.h); EX1003: ¶¶528-529.

(Vaseloff's displays already show parameter modifications via arrow buttons). EX1026: 4:10-12, 7:26-32; EX1003: ¶¶534-535.

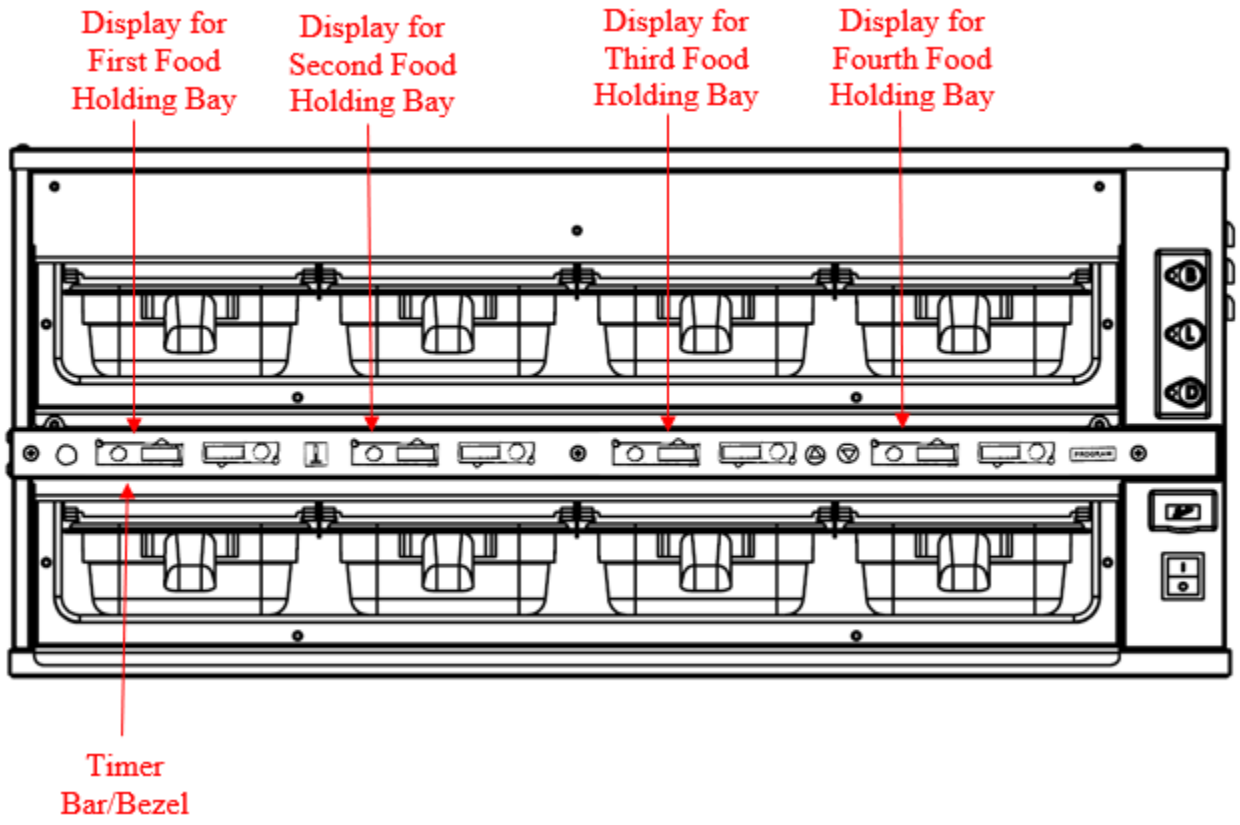
In modified IRHS24, the POSA would have connected arrow, temperature, and/or program button(s) to IRHS24's controller (modifying any connections/programming as needed to display and change temperature). EX1005: 25; EX1019: 6:15-19; EX1003: ¶535.

IRHS24 modified in view of Vaseloff and McMillan is shown below. EX1003: ¶536.




EX1005: 8 (modified-front).

In this Ground 8, the limitations of claims 1 and 3 are obvious for at least the reasons explained in Sections IV, IX, and X, with additional limitations of claim 3 further being obvious as demonstrated below. EX1003: ¶537. In view of Vaseloff and McMillan, it would have been obvious for the first bezel to have dedicated displays displaying temperature settings for corresponding bays. EX1003: ¶537.




EX1005: 8 (modified-front).

## XII. GROUND 9: Claims 1-5, 7-10, 12, 13, 21-24, and 26-28 Would Have Been Obvious Over Fortmann'748 in view of IRHS Documents, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, and/or Shei'099

### A. Fortmann'748 Modifications

#### 1. 2x4 Configuration

Fortmann'748 teaches a warming cabinet (10) for warming food trays (100).

EX1010: ¶¶[0002], [0014]-[0015]; EX1003: ¶¶538-541.

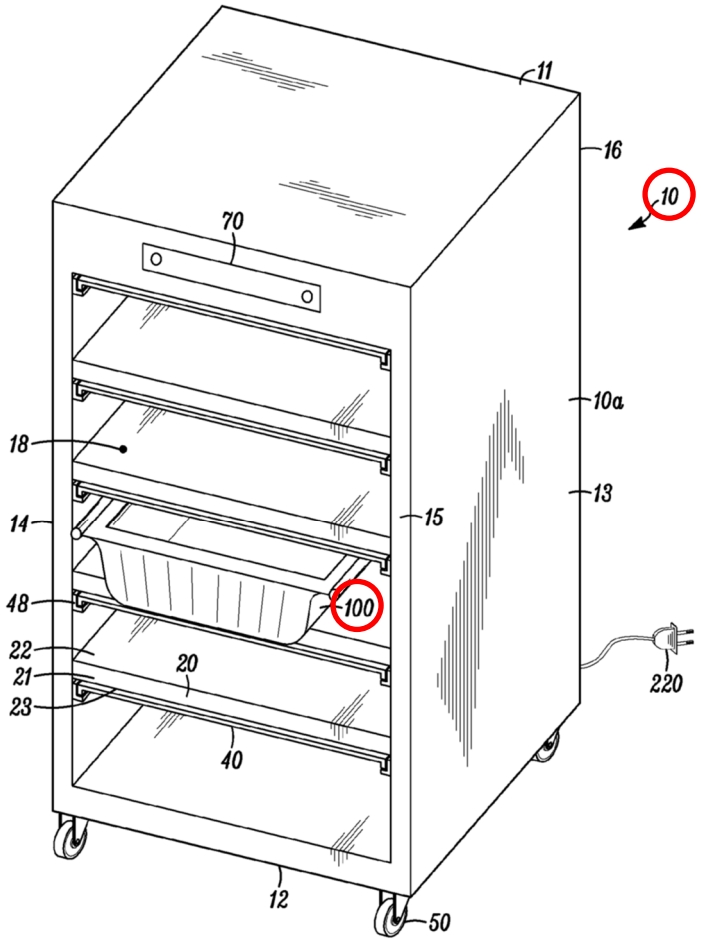



FIG. 1

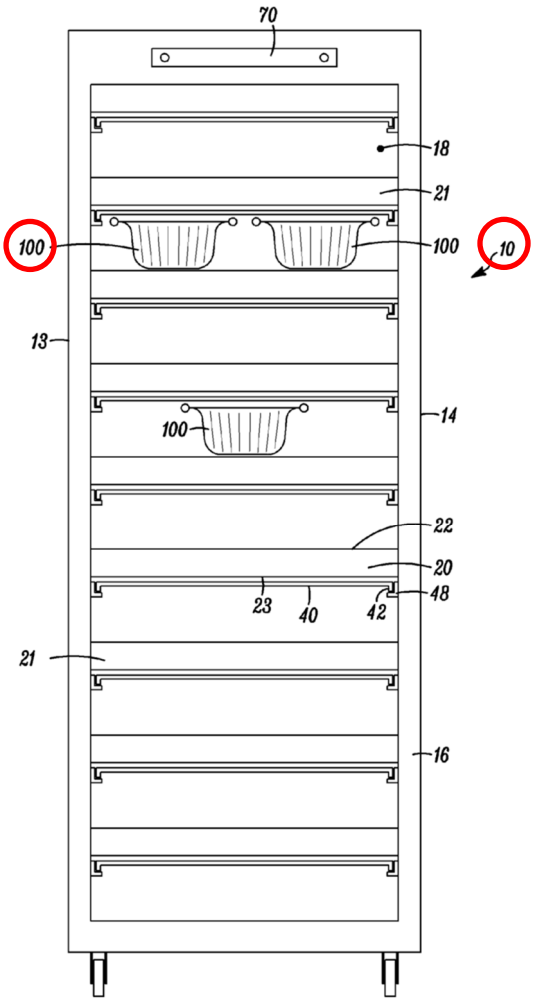
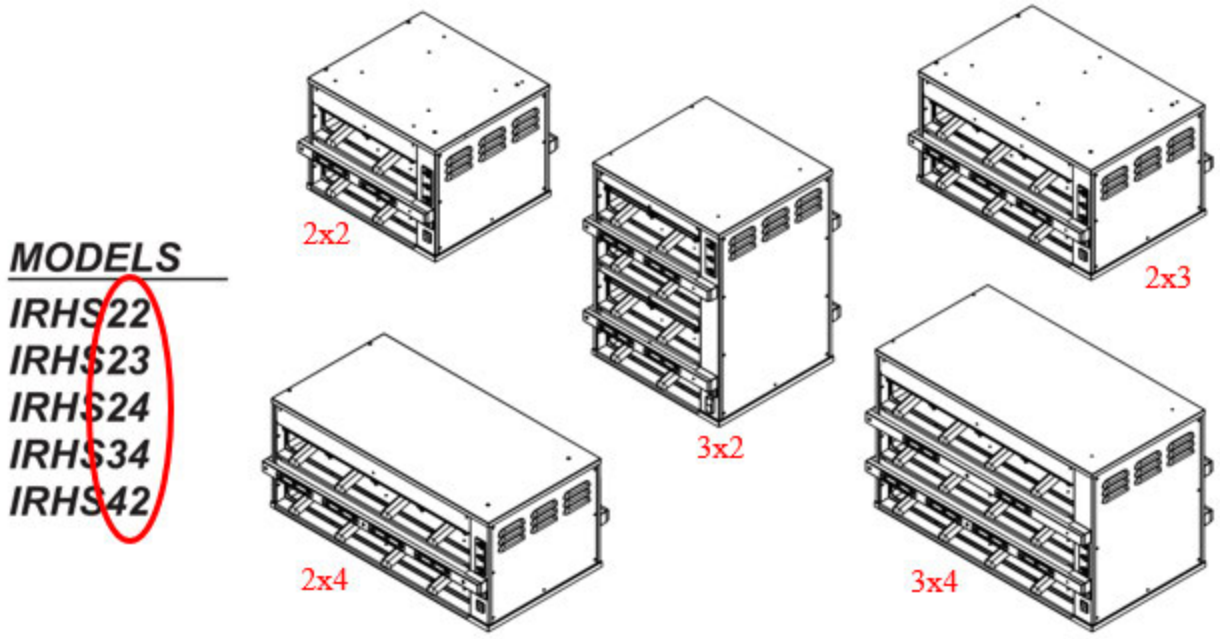



FIG. 6

EX1010: Figs. 1, 6.

The cabinet "may be 5-6 feet tall" or "only about 1-2 feet tall … to rest upon a table." EX1010: ¶[0014]; EX1003: ¶¶542-543. The cabinet may contain any number of compartments/shelves having "sufficient width to accept ***two or more*** standard 12 inch wide restaurant warming pans." EX1010: ¶¶[0014]-[0016]; EX1003: ¶¶544-545.

The IRHS Documents teach a food holding unit having a 2x4 bay configuration. EX1005: 1; EX1006: 1; EX1007: 55-57; EX1003: ¶546.

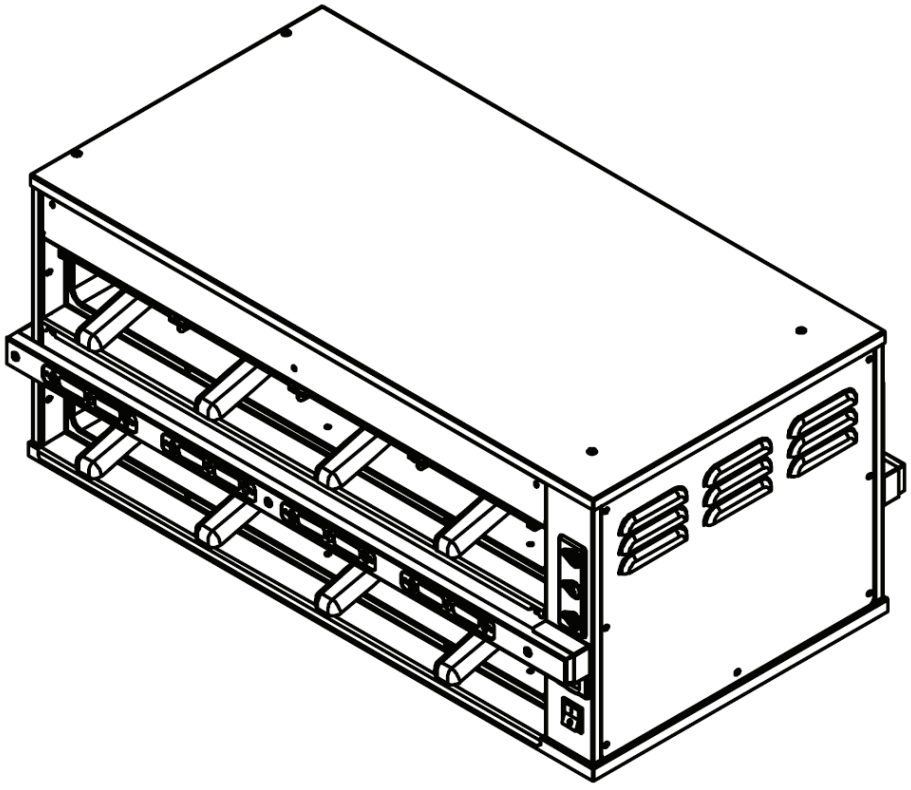



EX1005: 1.

In view of the IRHS Documents, it would have been obvious to configure Fortmann'748's cabinet to have only two compartments each having four narrower bays (2x4 bay configuration). EX1003: ¶547. This would make Fortmann'748's cabinet "only about 1-2 feet tall" and suitable to "rest upon a table" in a

commercial kitchen. EX1010: ¶[0014]; EX1007: 53; EX1003: ¶548. This configuration would also be cheaper to manufacture (less material, fewer parts) and cheaper to ship (smaller package, less weight) than Fortmann'748's larger/taller configurations. EX1003: ¶549.

Configuring Fortmann'748's cabinet to have a 2x4 configuration—a common configuration in the art—would have been an obvious design choice. *Uber Techs., Inc. v. X One, Inc.*, 957 F.3d 1334, 1341 (Fed. Cir. 2020) ("[POSA] would have faced a simple design choice between [known, finite solutions]"); EX1013: ¶¶[0028], [0030]; EX1015: ¶¶[0024], [0026]; EX1003: ¶550.

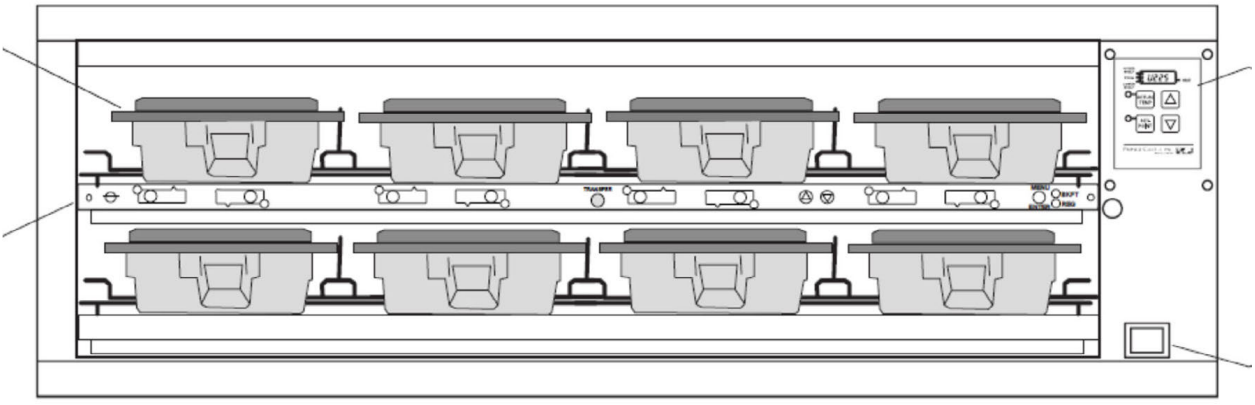


EX1005: 1 (unannotated).



EX1007: 56 (unannotated).

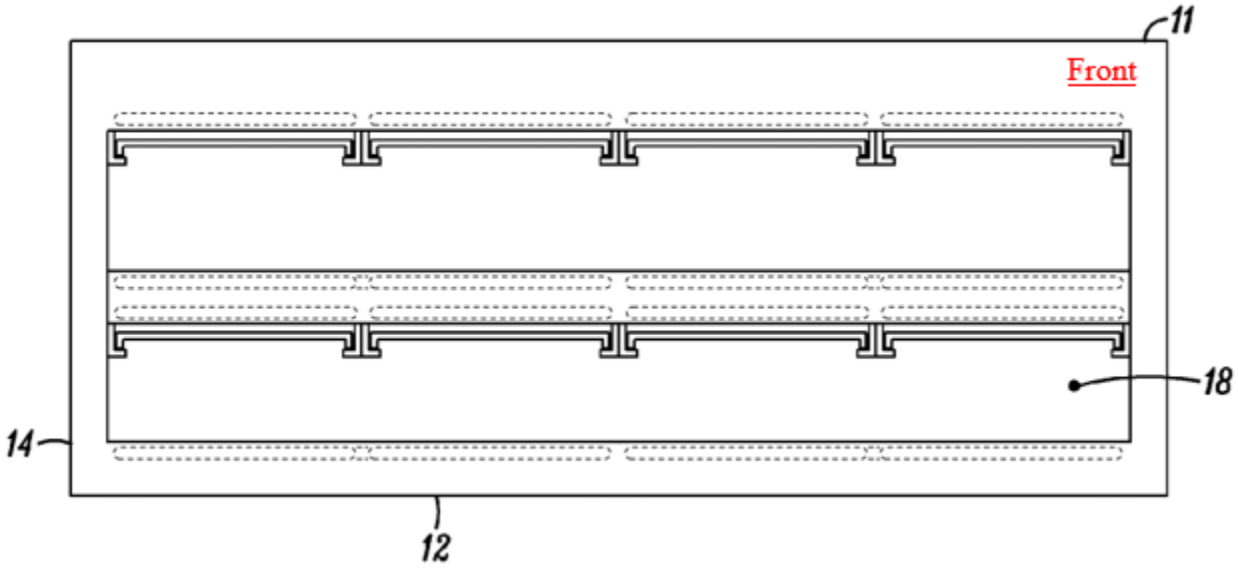


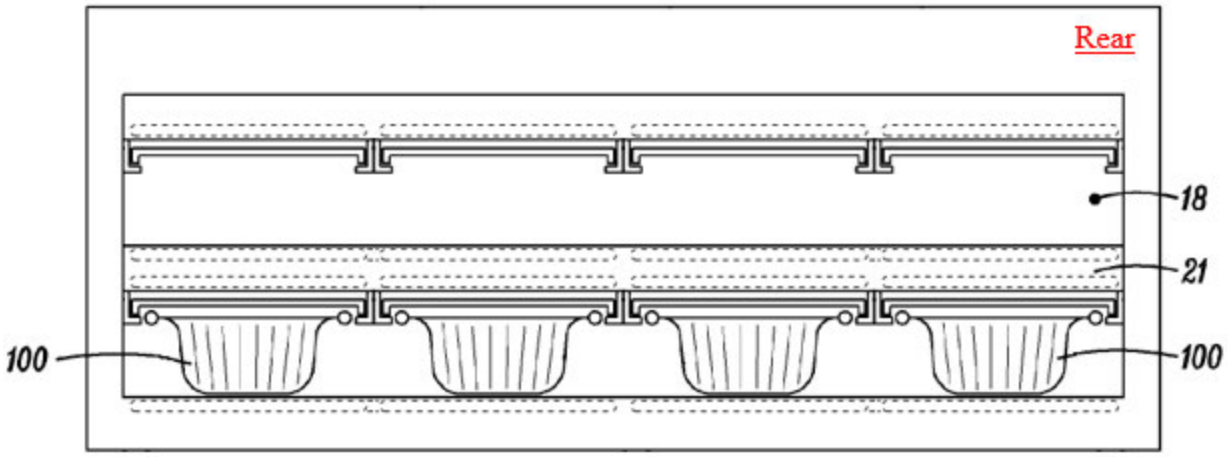
EX1009: 11, 19 (unannotated).

This modification would have been application of a known technique (IRHS Documents' 2x4 bay configuration) to improve a similar device (Fortmann'748's cabinet) in the same way (Fortmann'748's cabinet with eight bays), with reasonable expectation of success (simply removing components and/or changing their size). EX1005: 1; EX1006: 1; EX1007: 55-57; EX1010: ¶[0014]; EX1003: ¶¶551-552.

Representative illustrations[3] below show Fortmann'748's cabinet modified for a 2x4 configuration. EX1003: ¶553.




[3] Further modified below.




EX1010: Figs. 2, 6 (modified).

**2. Multiple Temperature Zones per Compartment**

Each Fortmann'748 shelf (21) includes "one or more heaters (60)" to establish multiple temperature zones in the cabinet. EX1010: ¶¶[0019], [0021], [0024]; EX1003: ¶¶554-558.

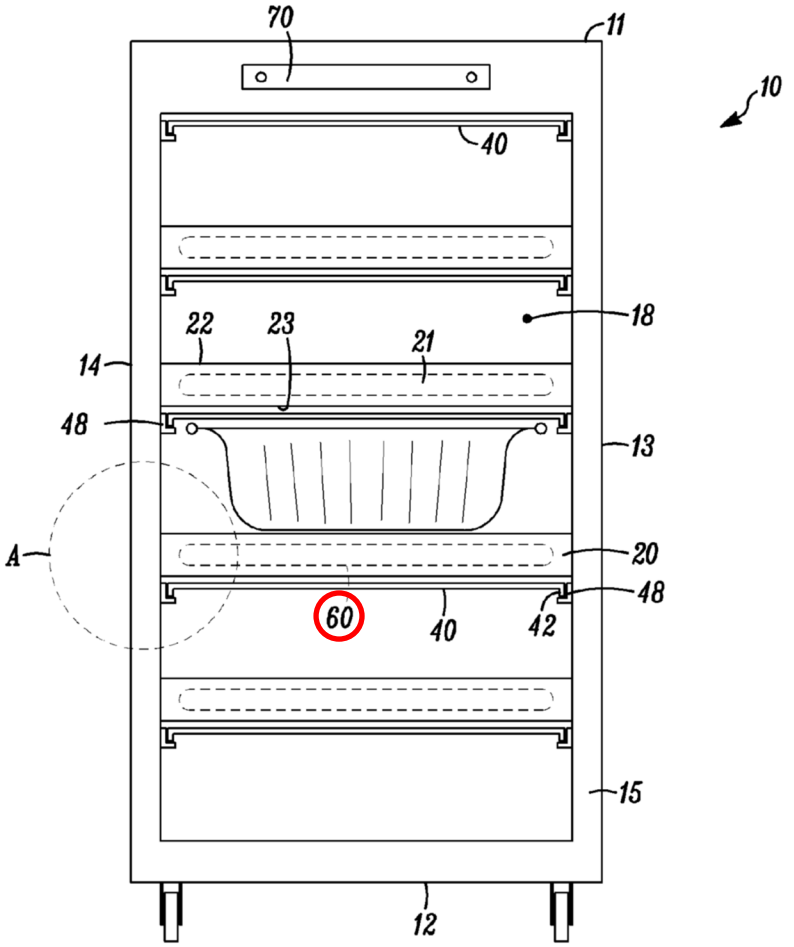



FIG. 2

EX1010: Fig. 2.

Jones teaches upper and lower food holding compartments (UHC, LHC) having multiple bays (ULTL, URTL, LLTL, LRTL), with each bay forming its own temperature zone with upper and lower heaters. EX1012: ¶¶[0069], [0072], [0096]; EX1003: ¶¶559-564.

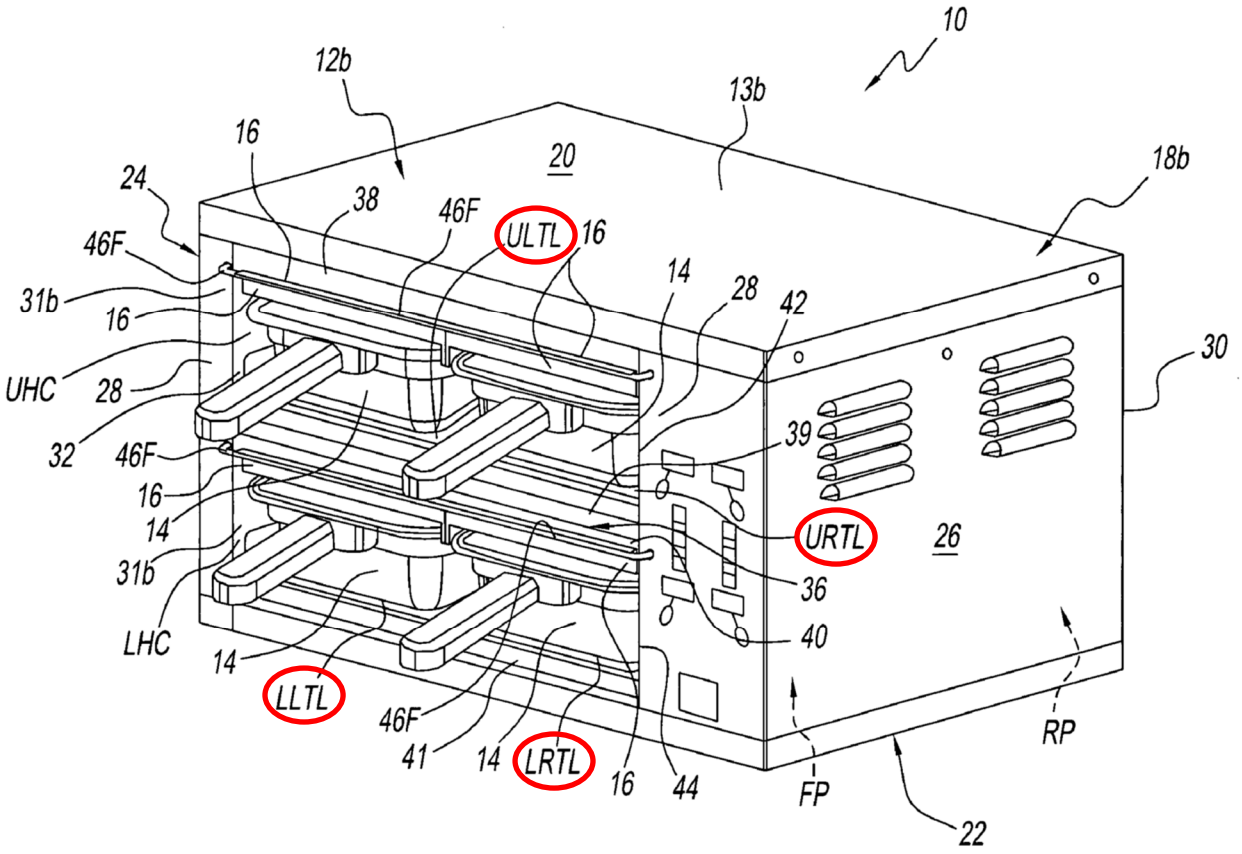



Fig. 1B

EX1012: Fig. 1B.

Fortmann'197 teaches discrete food heating zones/bays (100) each having discrete independently controllable upper and lower heaters (521)-(524), (501) above/below pans (400). EX1014: 3:6-27, 8:63-67, 9:1-19, 9:50-65; EX1003: ¶¶565-566.

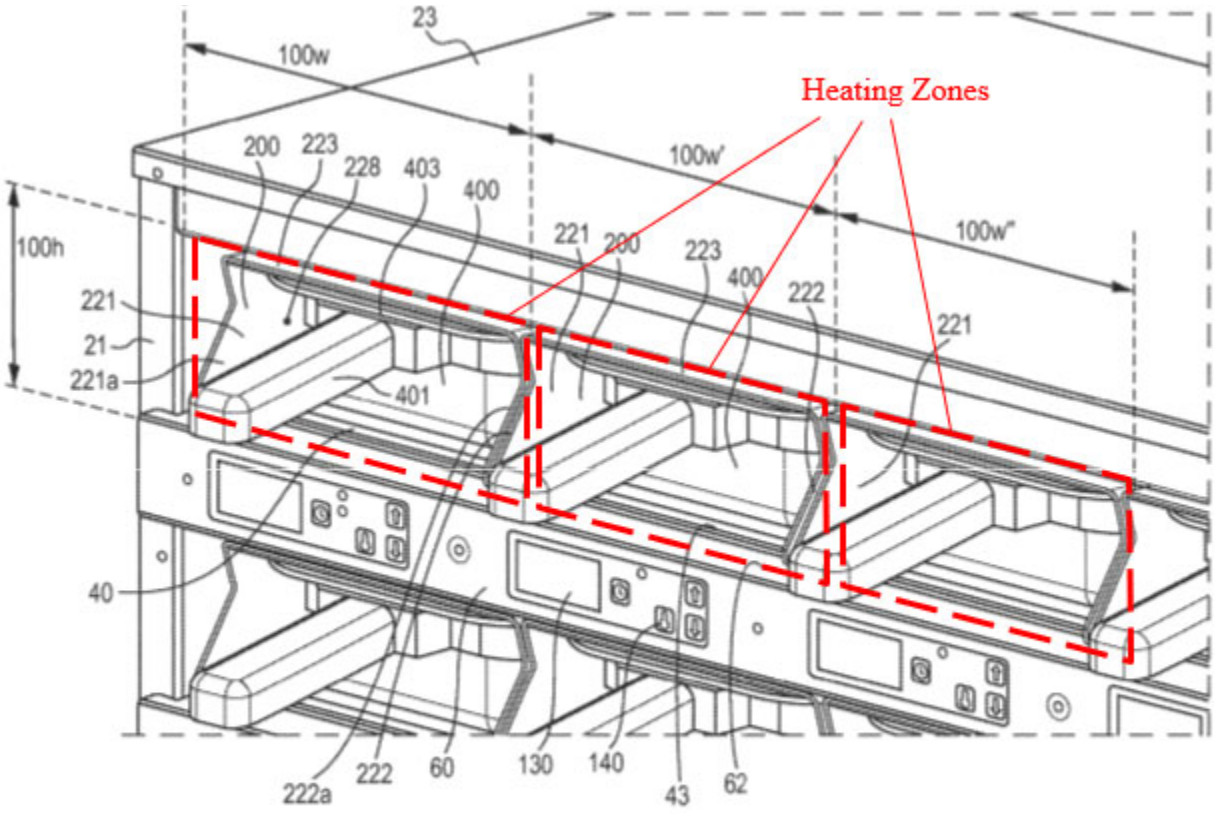

23
100w
Heating Zones
100w'
100w"
100h
200
223
228
403
400
221
200
223
400
222
221
221
21
221a
401
40
222a
222
60
130
140
43
62

FIG. 2

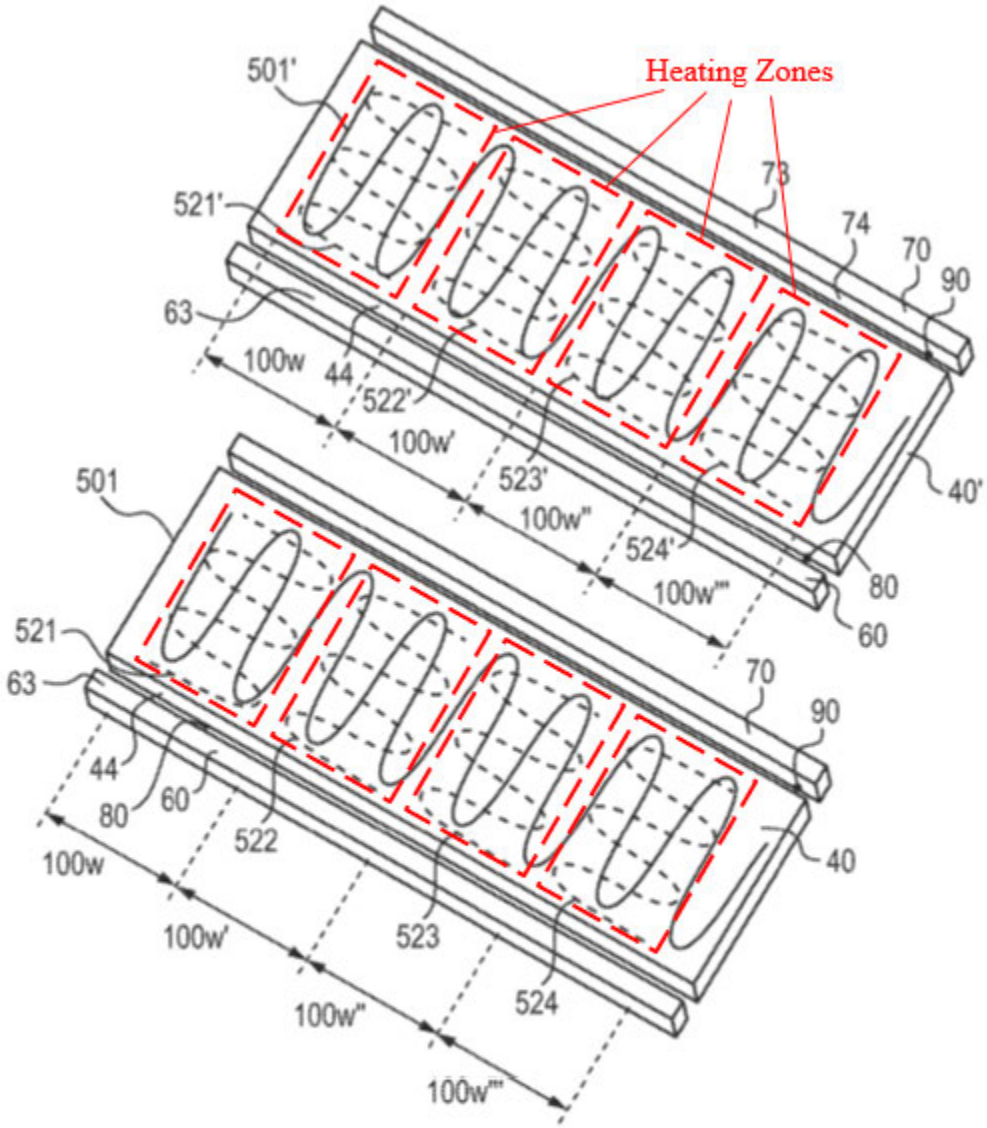
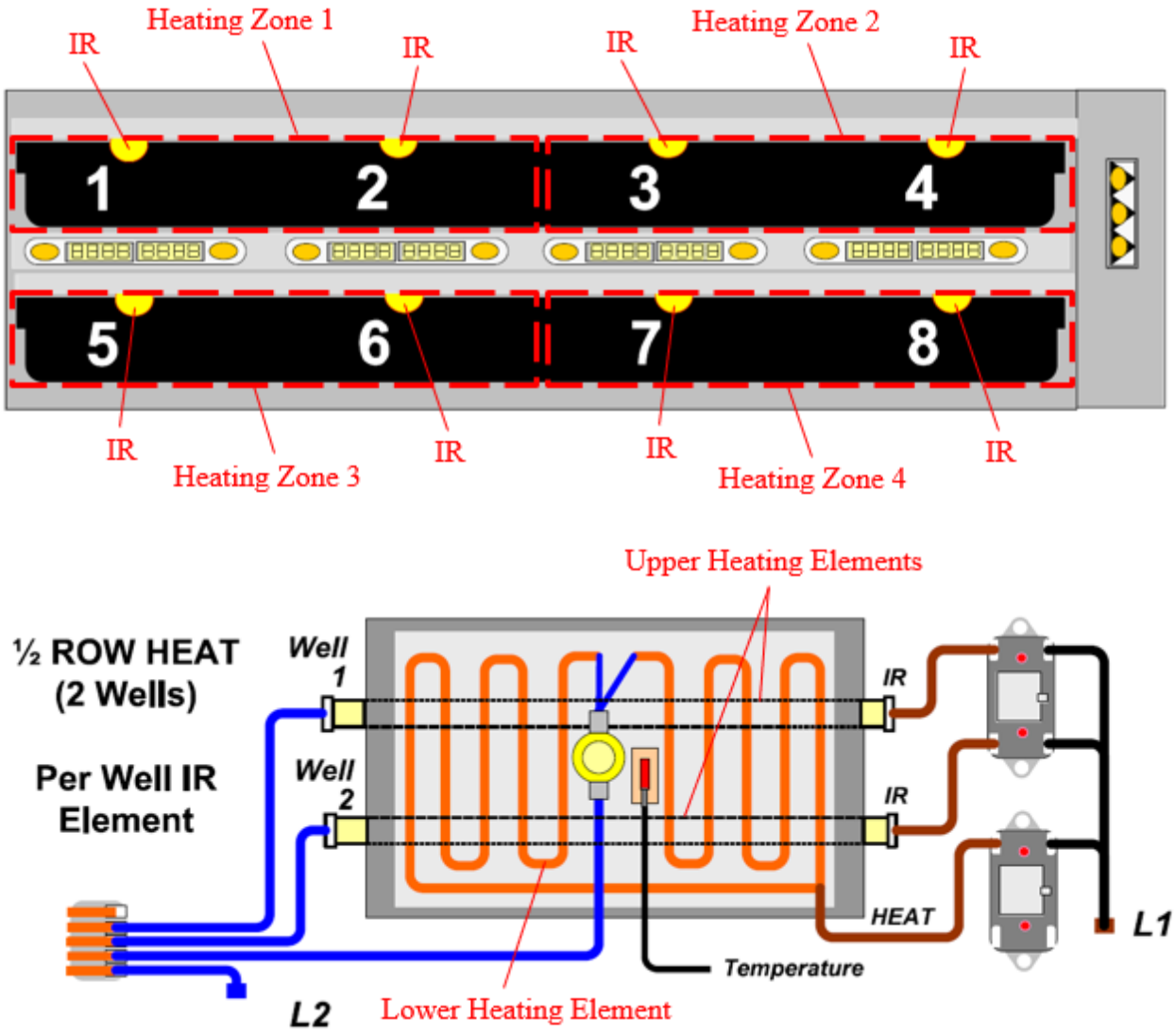



FIG. 10

EX1014: Figs. 2, 10.

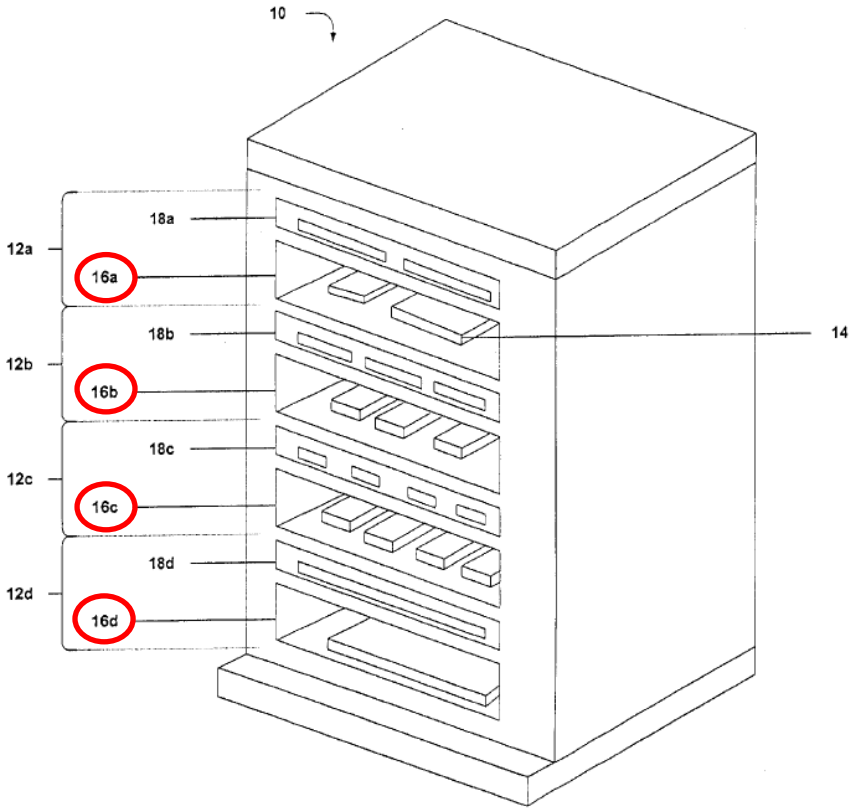
The IRHS Documents[4] teach two zones per compartment, each zone having two upper heating elements (IR bulbs) and a lower heating element. EX1005: 20, 25; EX1007: 53; Section IV; EX1003: ¶¶567-571.

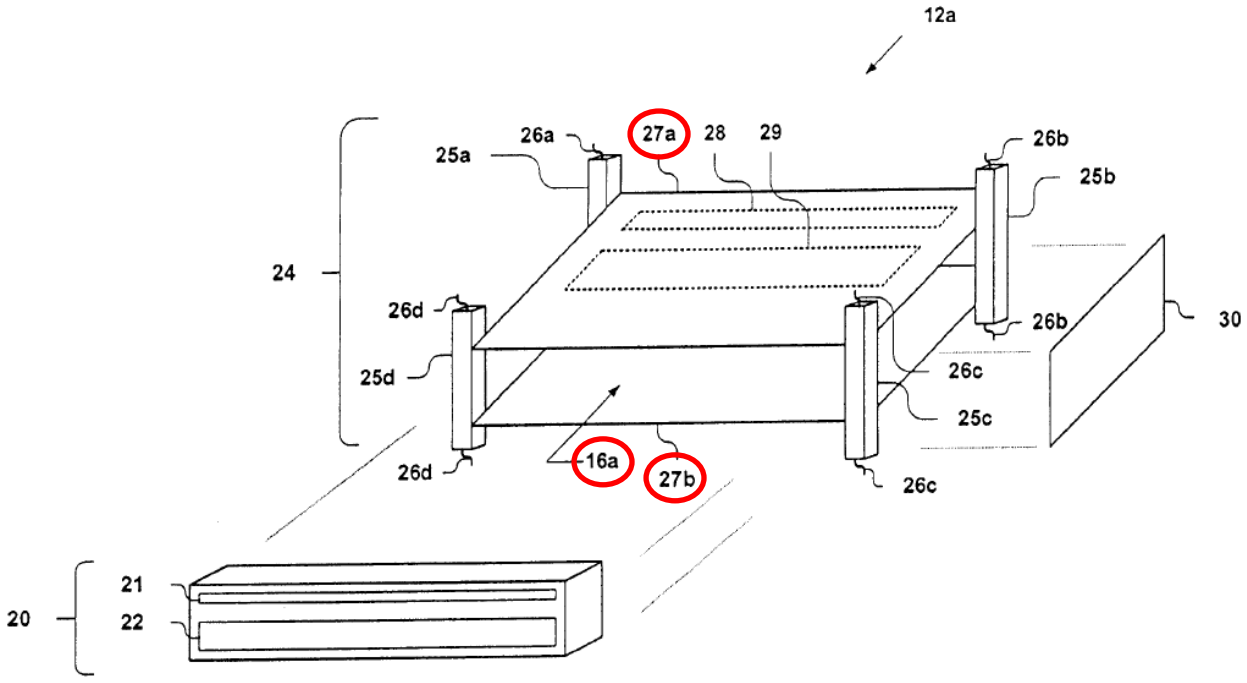



EX1005: 25.

[4] It would have been obvious to combine the teachings of the IRHS Documents as explained in Section IV(A). EX1003: ¶567.

McMillan teaches upper and lower heater plates (27a, 27b) having multiple heating elements for different temperatures/zones across food compartments (16a-d). EX1019: 4:36-59; EX1003: ¶572.






EX1019: Figs. 1-2.

It would have been obvious to modify Fortmann'748's cabinet to provide independently controlled heating zones across each compartment, per Jones, Fortmann'197, IRHS Documents, and/or McMillan. EX1003: ¶¶573-574. Multiple temperature zones per compartment would further Fortmann'748's goal of providing "zones" for "food products that require different warming temperatures". EX1010: ¶[0024]; EX1019: 1:36-45, 1:46-48, 4:45-52; EX1003: ¶575.

This would increase temperature zones (same cabinet size) and enable each compartment to receive pans requiring different temperatures, increasing flexibility

and enabling holding more food types at one time. EX1007: 51, 53; EX1019: 1:38-40; EX1003: ¶576.

This configuration would "provide improved temperature separation between tray or bin locations" and "more accurate temperature control between products." EX1012: ¶[0096]; EX1003: ¶577. Users could "precisely control the environment in each pan, allowing for customized settings for each food product." EX1005: 16; EX1003: ¶578.

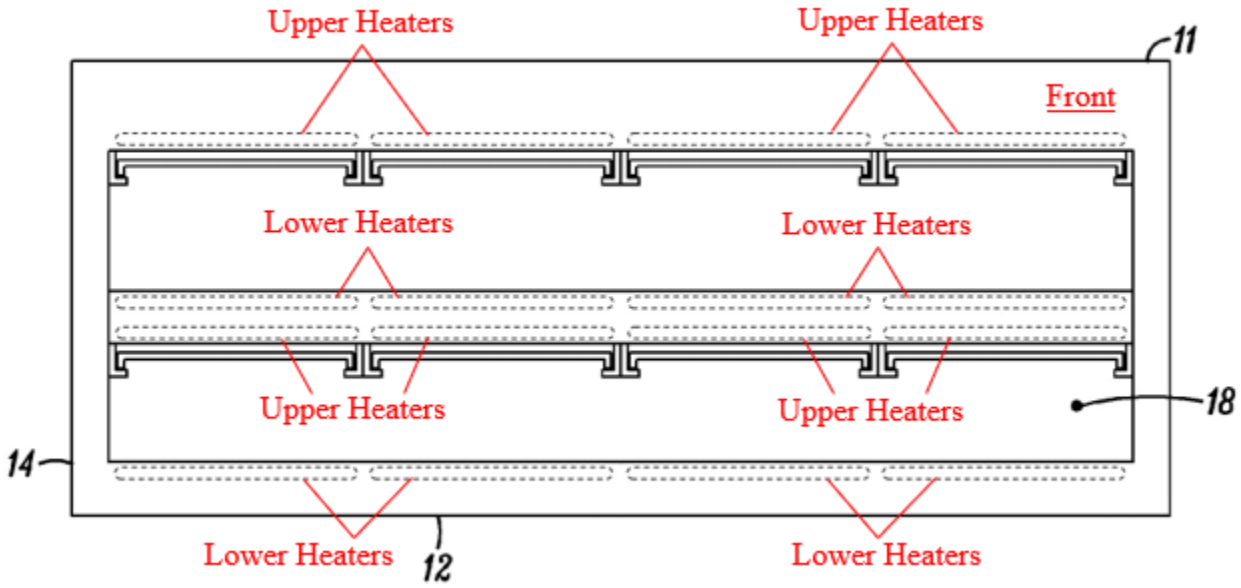
To the extent Fortmann'748's top compartment lacks upper heaters and bottom compartment lacks lower heaters, this modification would add such heaters to provide better and more uniform heating of the top and bottom compartments similar to the compartments between the shelves. EX1006: 1; EX1005: 4; EX1007: 53; EX1003: ¶579.

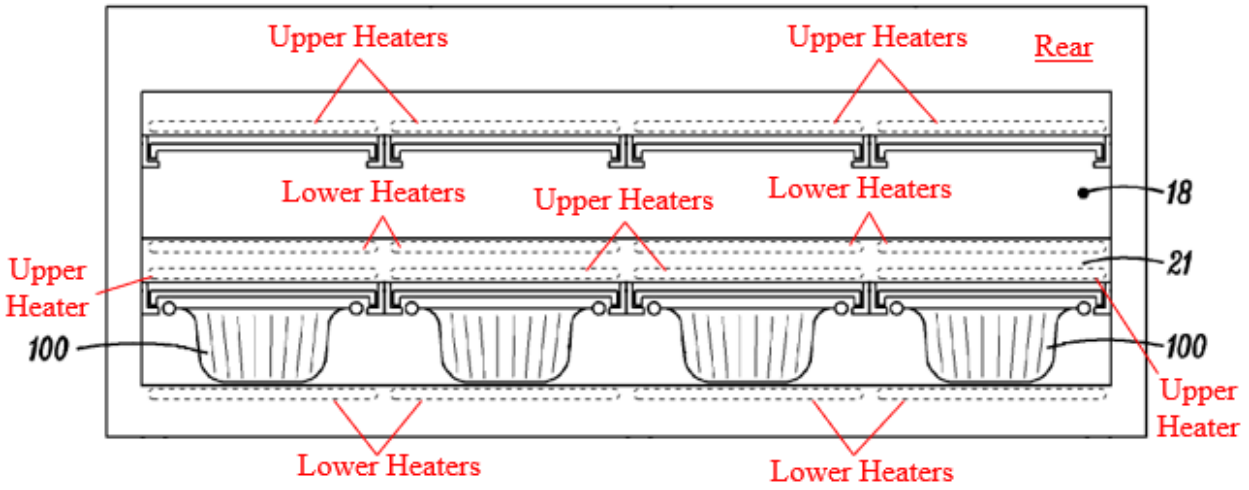
This modification would merely require duplicating and resizing Fortmann'748's existing heaters around the compartments so each zone includes dedicated upper and lower heaters. *In re Harza*, 274 F.2d 669, 671 (C.C.P.A. 1960) ("mere duplication of parts has no patentable significance"); EX1003: ¶580.

This modification would have been application of a known technique (upper and lower heating elements per zone of Jones, Fortmann'197, IRHS Documents, and/or McMillan) to improve a similar device (Fortmann'748's cabinet) in the same way (independent temperature control of heating zones (upper/lower heating

elements) across compartments) with reasonable expectation of success (Fortmann'748 already heating from above and below and prior art demonstrating independent heating of adjacent compartment zones). EX1020: ¶¶[0021]-[0023]; EX1003: ¶¶581-584.

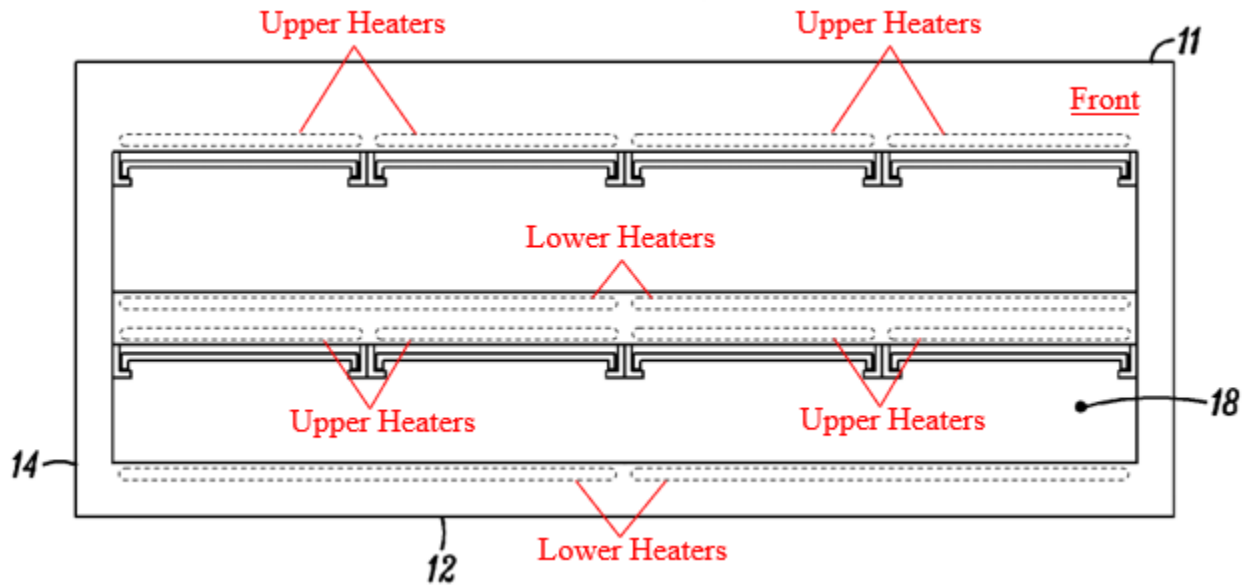
In view of Jones/Fortmann'197/McMillan (EX1012: ¶[0096]; EX1014: 3:19-27, 8:63-67, 9:1-19; EX1019: 4:36-52), the POSA would duplicate Fortmann'748's heaters so each bay has distinct upper and lower heaters. EX1003: ¶¶585-586.

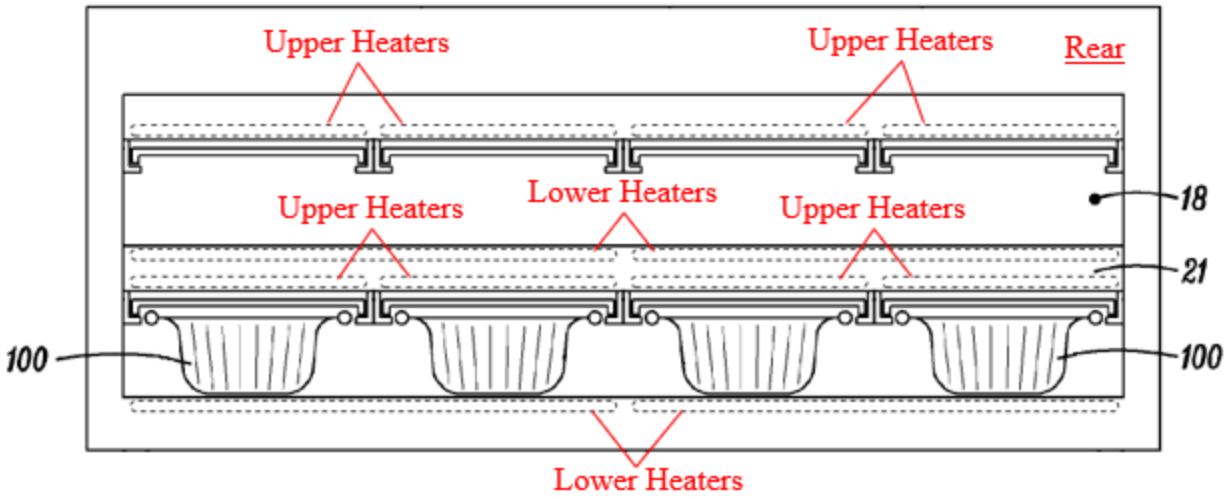





EX1010: Figs. 2, 6 (modified).

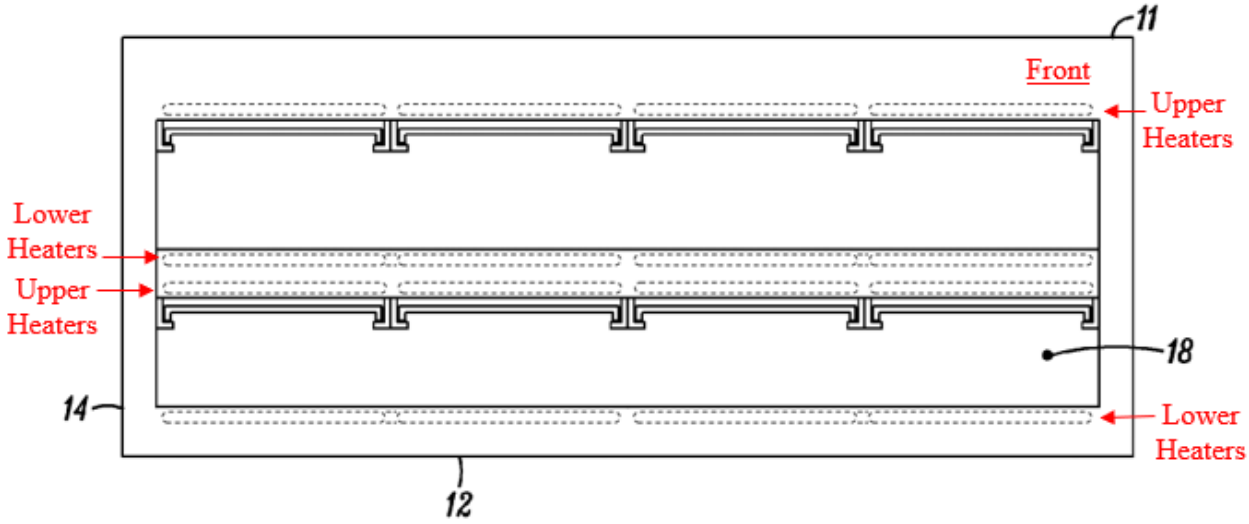
In view of the IRHS Documents (EX1005: 20, 25; EX1006: 1; EX1007: 53), the POSA would duplicate Fortmann'748's heaters to provide a discrete upper heater for each bay and a lower heater for both bays of each zone. EX1003: ¶¶587-588.



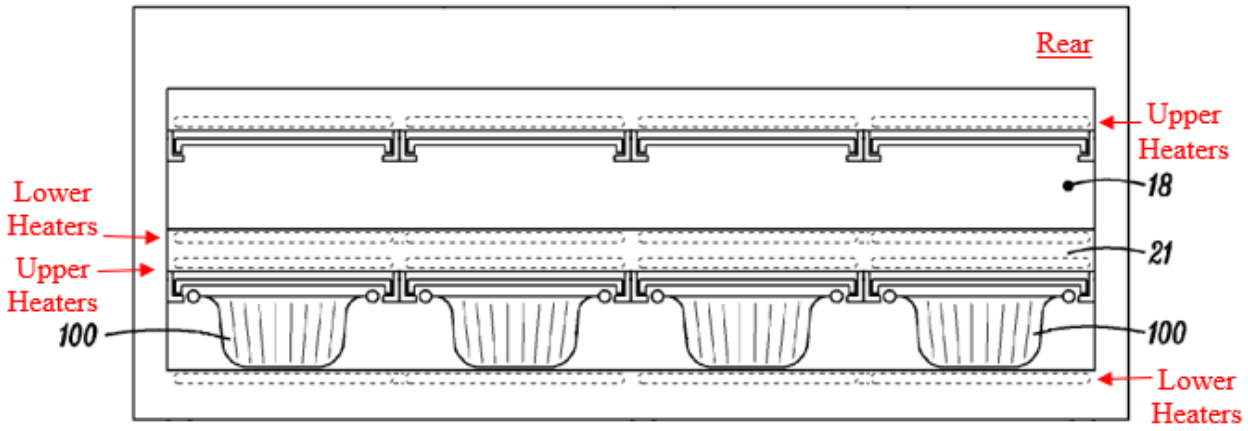



EX1010: Figs. 2, 6 (modified).

Schematic illustrations[5] below show a 2x4 Fortmann'748 cabinet representing both heater configurations. EX1003: ¶589. These heater representations will be used hereafter, and invalidity results from either heater configuration. EX1003: ¶590.




[5] Further modified below.




EX1010: Figs. 2, 6 (modified).

### 3. Independently Controllable Top and Bottom Heaters per Zone

Fortmann'748's heaters (60) are independently controllable. EX1010: ¶¶[0021], [0027]; EX1003: ¶591.

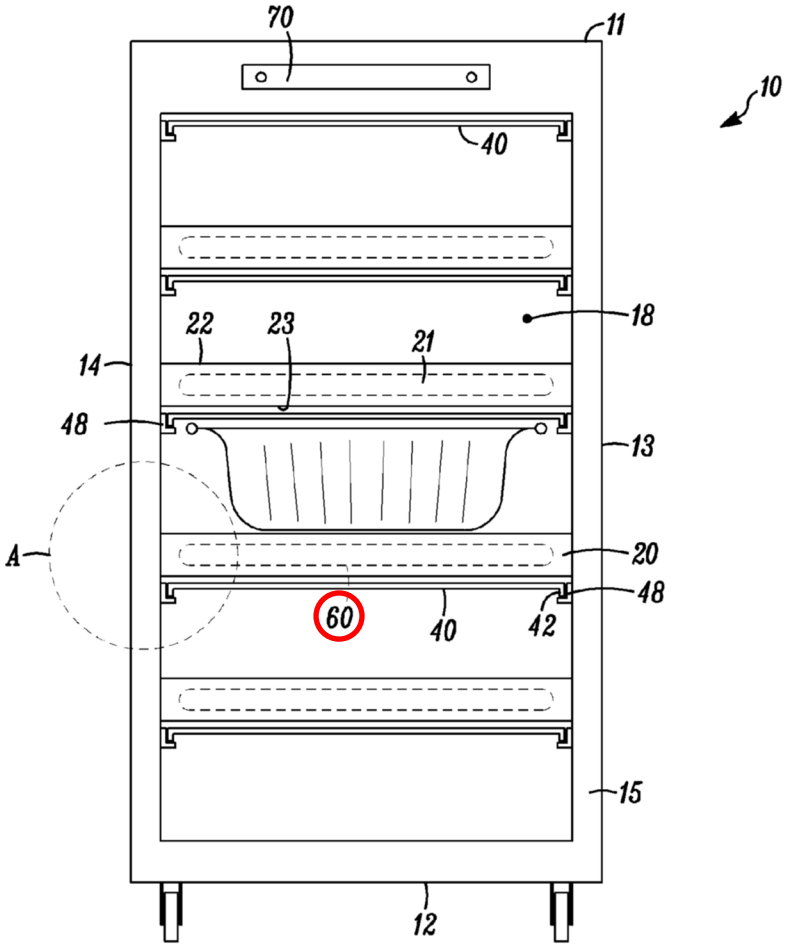


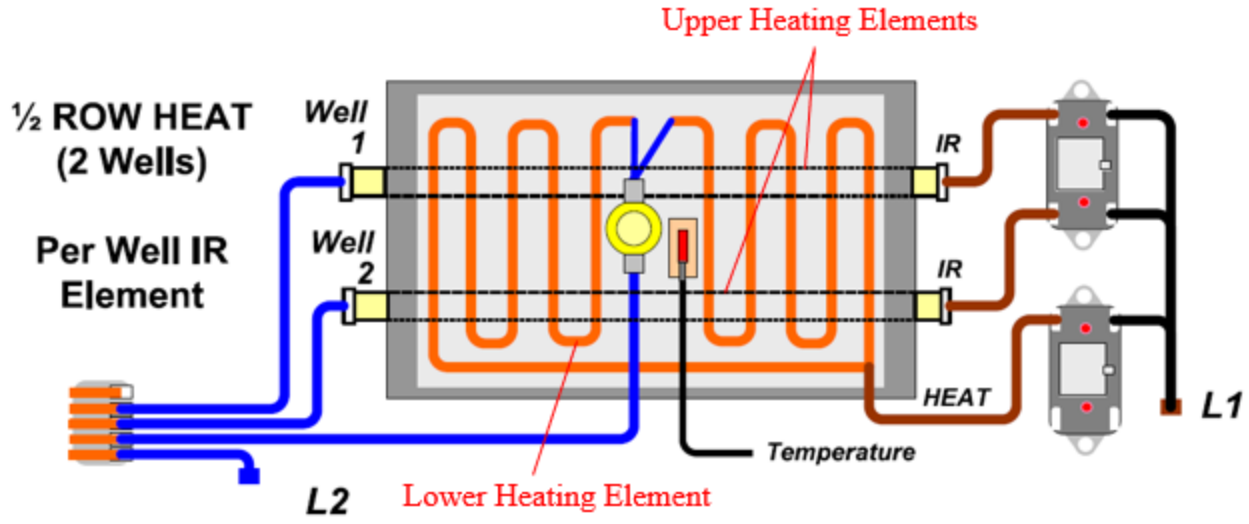

FIG. 2

EX1010: Fig. 2.

Jones's upper and lower heaters for each zone are independently controllable. EX1012: ¶¶[0098], [0130]; EX1003: ¶¶592-595.

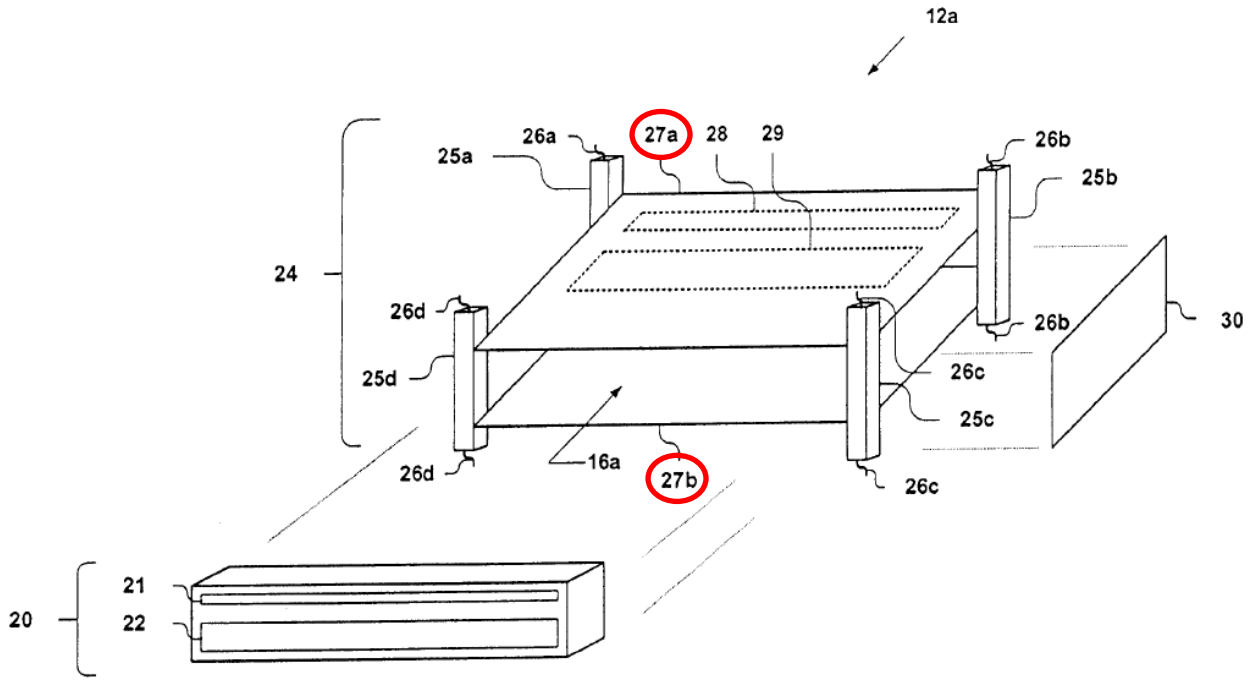
Fortmann'197 has independently controllable upper and lower heaters for its zones. EX1014: 8:63-67, 9:50-52, 9:59-65; EX1003: ¶596.

The IRHS Documents teach upper and lower heaters for each zone are independently controllable. Section IV(B)(1.d.2/1.e.2); EX1003: ¶597.




EX1005: 25.

McMillan's upper and lower heaters (27a, 27b) are "individually controlled." EX1019: 4:40-42; EX1003: ¶598.



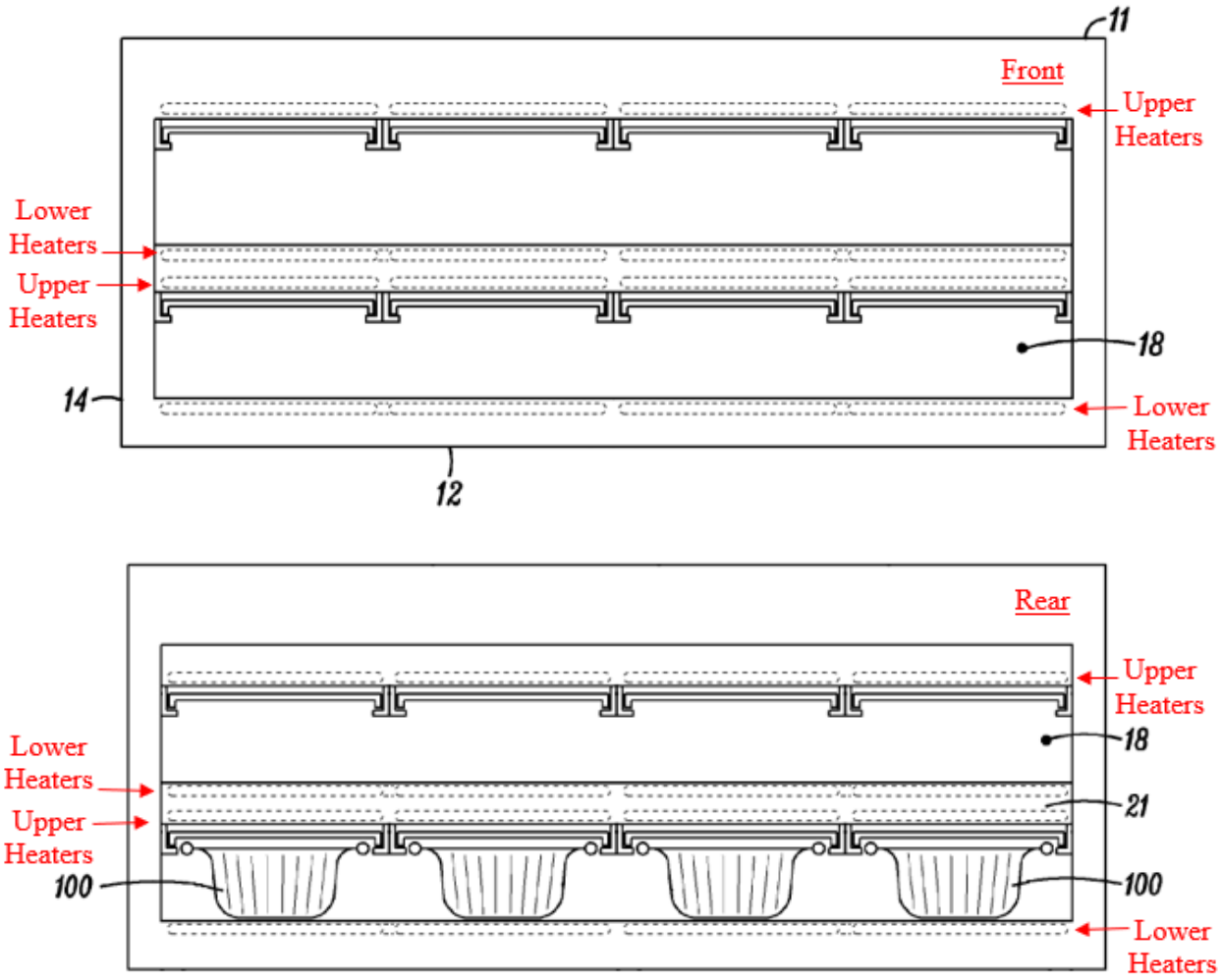

EX1019: Fig. 2.

In view of Jones, Fortmann'197, IRHS Documents, and/or McMillan, it would have been obvious to make the upper and lower heaters of each zone of Fortmann'748's modified cabinet independently controllable. EX1003: ¶599. This would provide "more accurate temperature control between products" and "limit temperature bleed over between [zones]" (EX1012: ¶[0096]), enable "precise[] control [of] the environment in each pan, allowing customized settings for each food product" (EX1005: 4), provide "the ability to maintain gold standard sensory attributes at drastically extended hold times while delivering hotter food" (EX1007: 10), and would "minimize temperature distribution from top to bottom of [the] pan" to improve temperature consistency. EX1006: 1; EX1007: 53; EX1003: ¶¶600-602.

The modification would "offer maximum flexibility in setting the precise food holding temperatures." EX1009: 16; EX1003: ¶603. It would enable setting each zone's upper and lower heaters to different temperatures for food (eggs) requiring such settings. EX1028: 39; EX1003: ¶603.

This modification would have been application of a known technique (independently controllable upper and lower heaters per heating zone of Jones, Fortmann'197, IRHS Documents, and/or McMillan) to improve a similar device (Fortmann'748's cabinet) in the same way (independent zone temperature control) with reasonable expectation of success (prior art demonstrating independent

control of upper and lower heaters in warming cabinets). EX1005: 16; EX1006: 1; EX1007: 53; EX1012: ¶[0096]; EX1014: 8:63-67, 9:50-65; EX1019: 4:36-59; EX1003: ¶¶604-605.




EX1010: Figs. 2, 6 (modified).

Fortmann'748 teaches a controller controlling "the one or more heaters 60 disposed within each zone to control the temperature of the zone." EX1010: ¶[0027]; EX1003: ¶¶606-607.

When modifying Fortmann'748's cabinet to have multiple zones per compartment (Section XII(A)(2)) and making upper and lower heaters for each zone independently controllable (Section XII(A)(3)), the POSA would have operatively coupled the heaters to Fortmann'748's controller (making any minor programming changes as needed). EX1014: 9:65-10:2; EX1003: ¶¶608, 610-611. Fortmann'748's controller is already able to operate heaters independently in different zones and could operate the additional heaters independently. EX1010: ¶¶[0021], [0024]; EX1003: ¶609.

**4. Modified Controls**

Fortmann'748's control system has a generic "input device" for selecting temperature and "a display" for displaying temperature. EX1010: ¶[0027]; EX1003: ¶612.

Vaseloff's display/control groups provide suitable examples of such input devices and displays as each bay (34) has a corresponding display/control group comprising a display device (60), timer status indicator (62), and timer button (64). EX1026: 2:60-63, 3:48-51, 4:5-6, 4:20-33, 4:48-49, 6:51-52, Fig. 4; EX1003: ¶¶613-617.

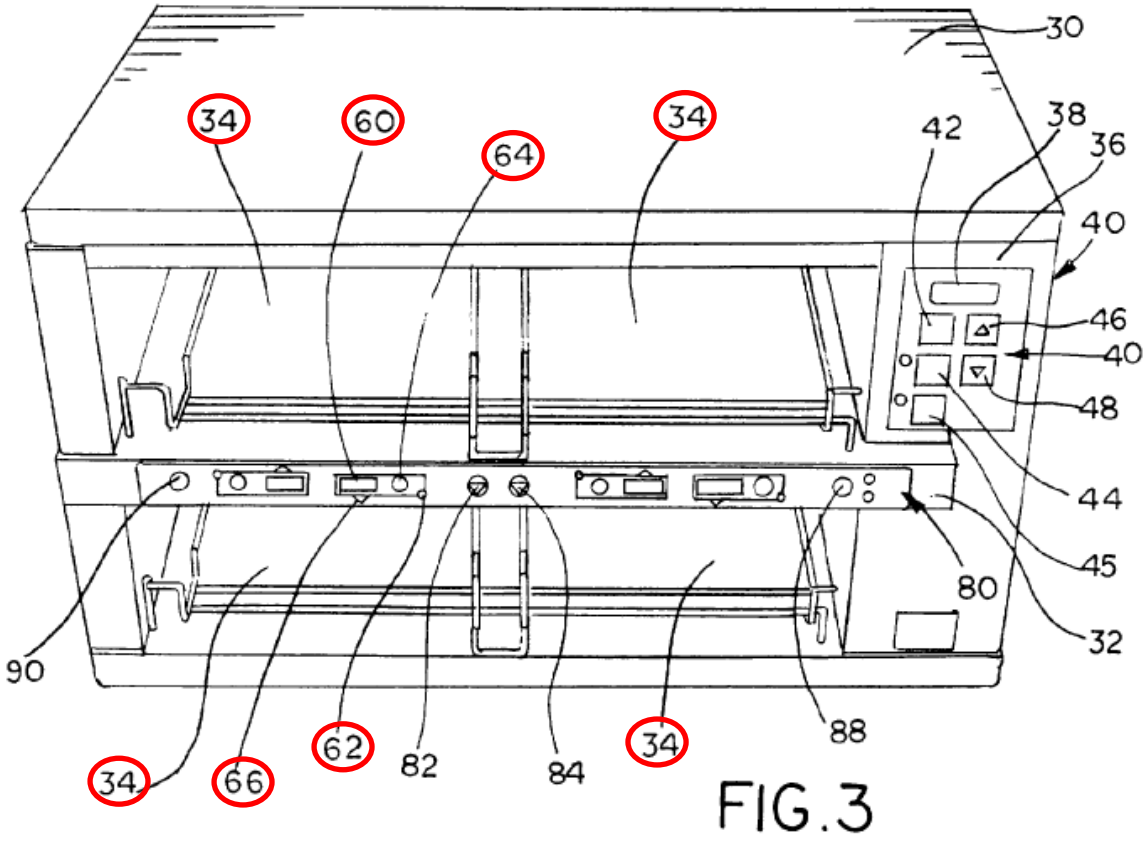



FIG. 3

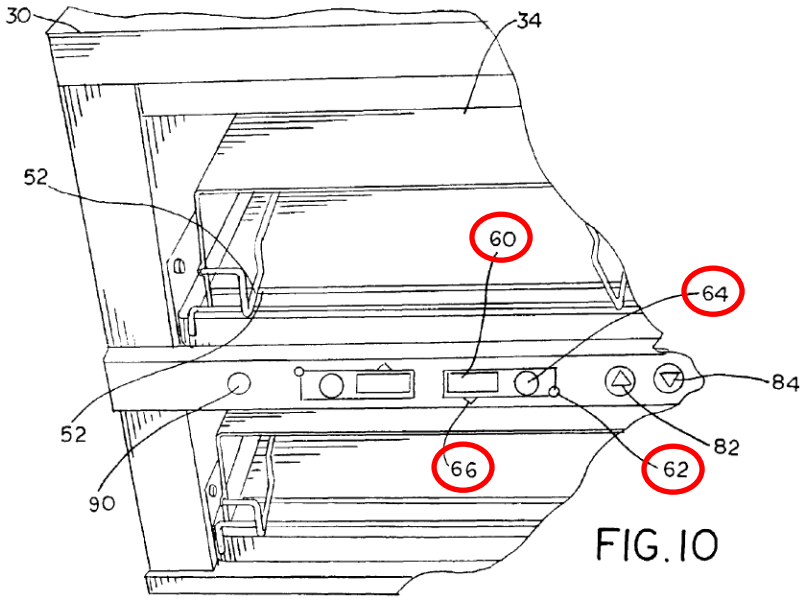



FIG. 10

EX1026: Figs. 3, 10.

In view of Vaseloff, it would have been obvious to incorporate display/control groups (each including a display device, timer status indicator, timer button, and indicator arrow) into Fortmann'748's modified cabinet, with each bay having its own group. EX1019: 3:21-23; EX1003: ¶618.

This would visually associate each bay's controls with the bay, making identifying the bay's controls easier and quicker. EX1026: 4:20-22; EX1019: 10:5-10; EX1003: ¶¶619-620. This would improve user interaction with the cabinet by making it more intuitive to associate displayed information with a specific bay and to identify the bay's associated input device. EX1026: 4:25-30, 6:51-55; EX1003: ¶621.

Moreover, Vaseloff's display devices display food type ("EGGS") for each bay, and Vaseloff's indicators facilitate food inventory/timing management by indicating food/timer status. EX1026: 4:5-15, 4:48-6:25; EX1003: ¶622.

This would have been application of a known technique (Vaseloff's display/control groups) to a known device (Fortmann'748's cabinet) in the same way (display/control groups associated with respective bays) with reasonable expectation of success (Vaseloff's display/control groups function in a similar manner to Fortmann'748's input device and display). EX1003: ¶¶623-627.

The POSA would have had reasonable expectation of success because Vaseloff's "system [] can be applied to any food preparation and storage device."

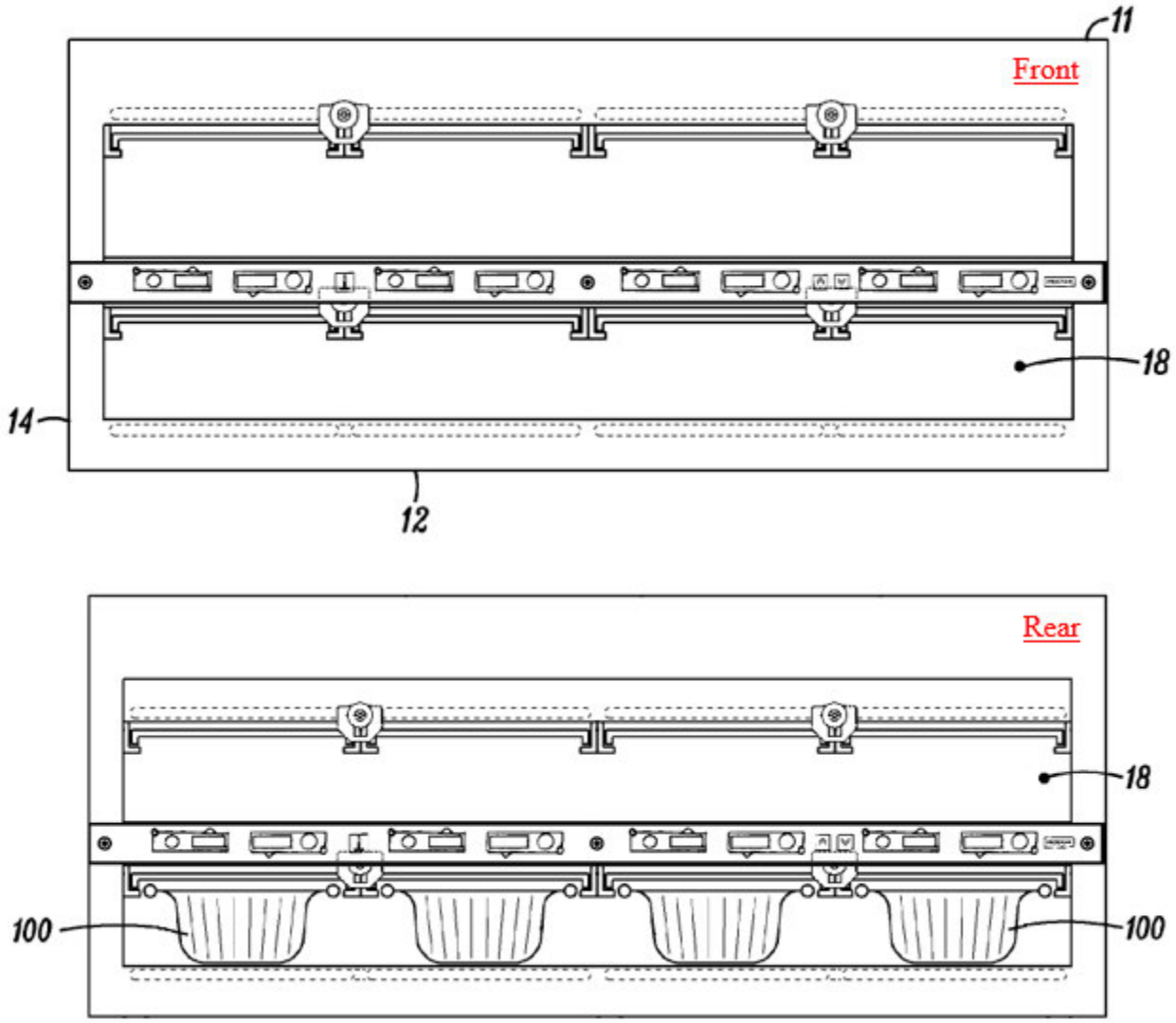
EX1026: 11:35-38; EX1003: ¶626. In this modification, each of Vaseloff's display/control groups (display devices, timer status indicators, and timer buttons) would be connected to Fortmann'748's controller per Fortmann'748 and Vaseloff (modifying any connections/programming as needed). EX1010: ¶[0027]; EX1026: 2:17-20; EX1003: ¶¶628-629.

It would have been obvious to arrange the Vaseloff display/control groups on Fortmann'748's cabinet's front and rear per Fortmann'197, IRHS Documents, and/or McMillan. EX1005: 8, 20, 25; EX1006: 2; EX1007: 54, 56; EX1008: 61; EX1014: 3:51-55, 4:25-37; EX1019: 3:44-47, 4:15-17; EX1003: ¶¶630-631. Fortmann'748's cabinet is a pass-through design (pans inserted/removed from front/rear). EX1010: ¶[0014]; EX1003: ¶632. Providing Vaseloff's display/control groups on the front and rear allows information viewing (temperature) and bay control (timer) from both sides, allowing front/rear user coordination. EX1014: 4:32-37; EX1019: 5:42-44; EX1024: 11:34-38; EX1029: 5:19-23; EX1003: ¶¶633-634.

This would have been application of a known technique (displays and controls on the front and rear per Fortmann'197, IRHS Documents, and/or McMillan) to improve a similar device (Fortmann'748's cabinet) in the same way (enabling operators on both sides to view information and control operation) with

reasonable expectation of success (Vaseloff's display/control groups functioning in generally the same way). EX1003: ¶¶635-636.

Representative illustrations[6] below show a 2x4 Fortmann'748 cabinet modified with Vaseloff's display/control groups. EX1003: ¶637.




EX1010: Figs. 2, 6 (modified).

[6] Further modified below.

### 5. Temperature Control

Fortmann'748 generally explains its input device allows "the user to select a [zone's] desired temperature" and McMillan provides an example implementation. EX1010: ¶[0027]; EX1003: ¶¶638-639.

McMillan teaches zoned bay heating and message areas (183a-d) associated with bays for displaying food names and actual and setpoint temperatures via temperature key (187). EX1019: 4:36-59, 10:10-33, 10:43-58; EX1003: ¶¶640-644. Program key (188) allows the user to set temperatures. EX1019: 10:43-58; EX1003: ¶644.

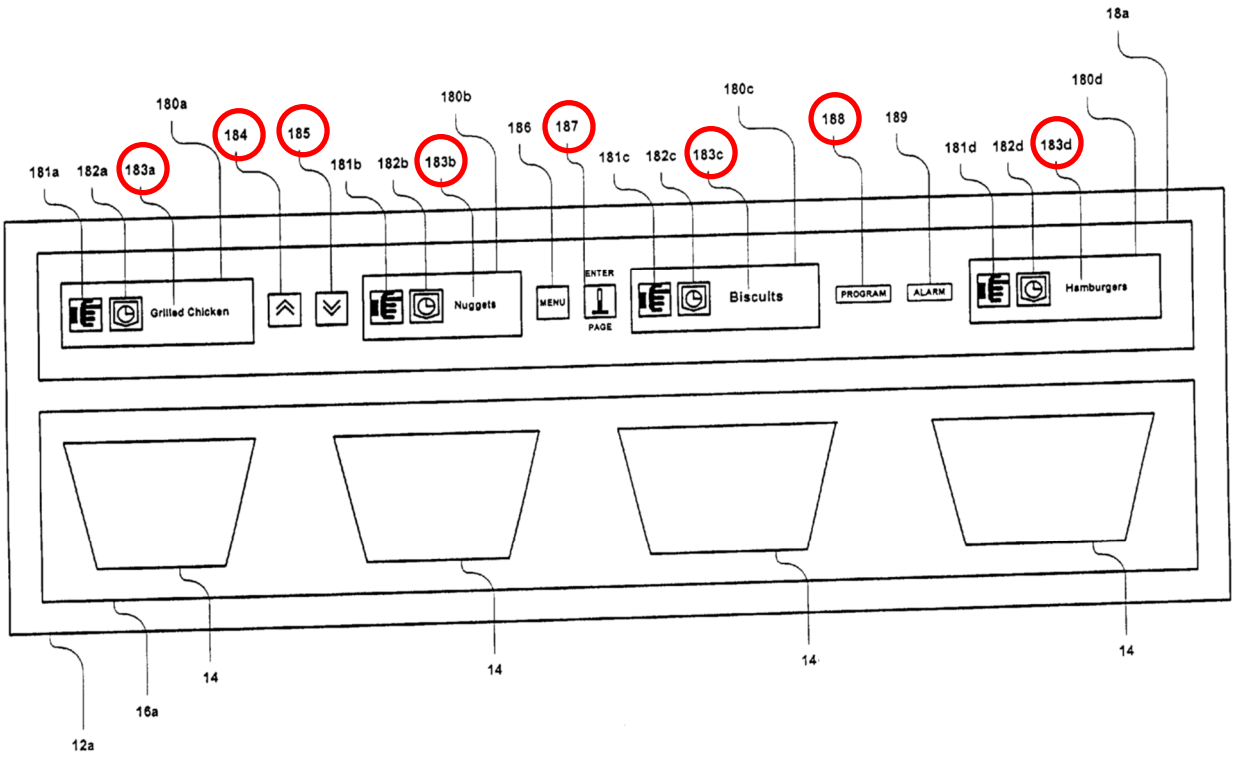



Fig. 5a

EX1019: Fig. 5a.

In view of McMillan, it would have been obvious to modify Vaseloff's display devices (and/or programming of Fortmann'748's control system) to display current and setpoint temperatures in each bay's display device. EX1019: 10:30-32; EX1003: ¶645. Moreover, in view of McMillan, it would have been obvious to incorporate controls to change setpoint temperatures. EX1019: 10:43-58; EX1003: ¶646.

For this modification, the POSA would incorporate McMillan's arrow keys to change temperature setpoints per McMillan. EX1026: 7:30-32; EX1019: 10:46-48; EX1003: ¶649. The POSA would incorporate temperature and/or program buttons to view and change temperature setpoints. EX1019: 10:52-58; EX1003: ¶650. The POSA would know how to implement the buttons/keys as physical buttons, including connecting McMillan's controls to Fortmann'748's controller (modifying any connections/programming as needed to display and change temperature). EX1026: 2:60-3:19, 7:29-32; EX1010: ¶[0027]; EX1019: 6:15-19; EX1003: ¶¶651, 656-657.

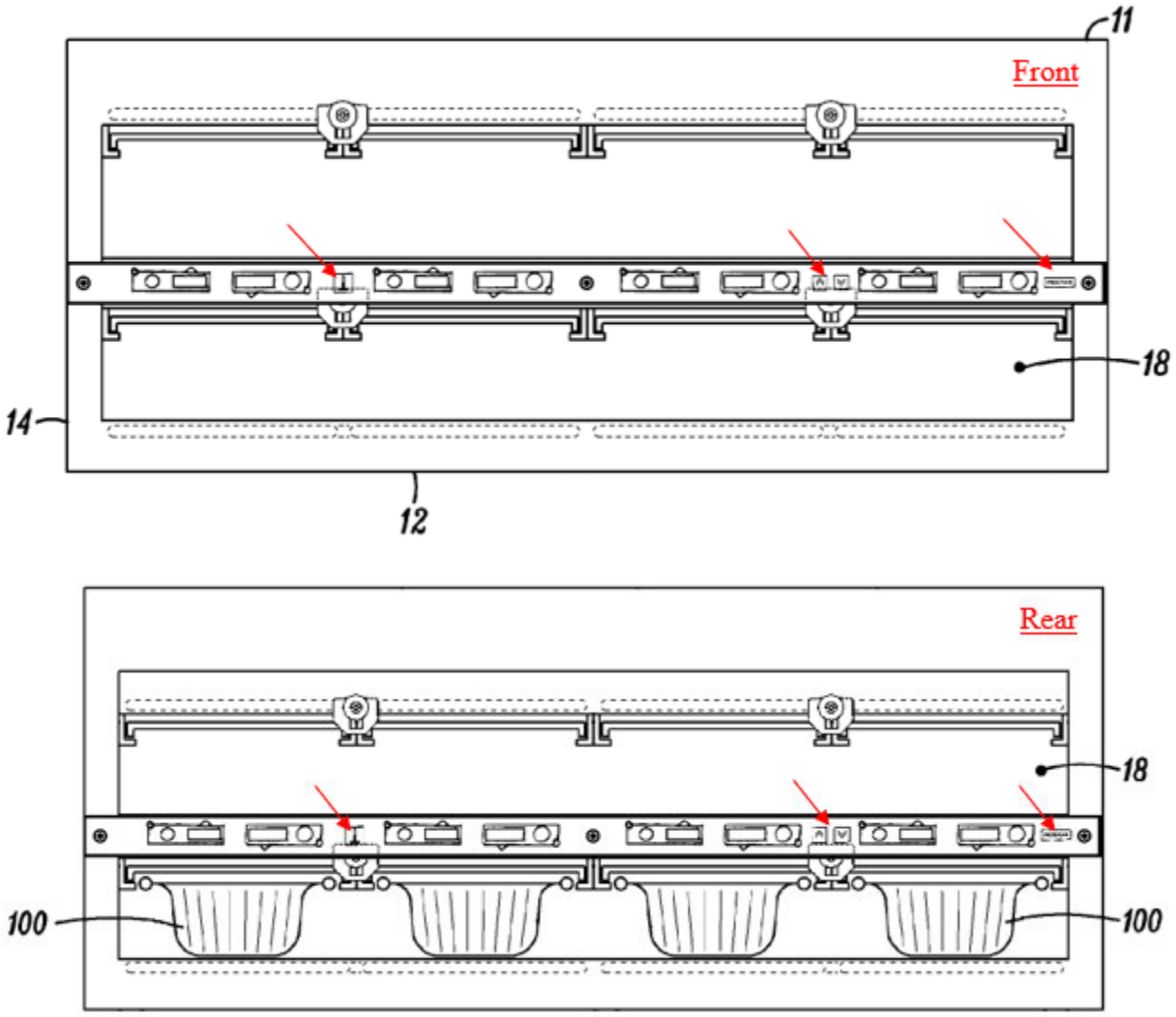
The POSA would program Fortmann'748's controller to permit displaying the current and setpoint temperatures for each bay in the associated display and changing the setpoint temperature for individual bays via the arrow keys, the temperature button, and/or the program button, similar to McMillan. EX1019: 10:6-8, 10:20-33, 10:42-58; EX1003: ¶¶652-653.

This would provide an easy, fast, and intuitive way for users to see current and setpoint temperatures displayed where users would associate them with the corresponding bay. EX1019: 10:6-10; EX1026: 4:20-22, 4:25-30; EX1003: ¶647. This also allows users to change setpoint temperatures. EX1003: ¶648.

This would have been application of a known technique (actual and set-point temperature display and changing set-point temperature of McMillan) to improve a similar device (Fortmann'748's cabinet) in the same way (displaying actual and setpoint temperatures for each bay and changing setpoint temperature) with reasonable expectation of success (Vaseloff's displays already show parameter modifications using arrow buttons). EX1026: 4:10-12, 7:26-32; EX1003: ¶¶654-655.

Representative illustrations[7] below show a 2x4 Fortmann'748 cabinet modified with McMillan's controls. EX1003: ¶658.

[7] Further modified below.




EX1010: Figs. 2, 6 (modified).

**6. Timer Bar/Bezel**

Fortmann'197's holding cabinet has front and rear control bars (60) with displays/inputs (130, 140) spaced from the shelves (40). EX1014: 2:58-59, 3:28-30, 3:51-56, 4:18-37, Fig. 3; EX1003: ¶¶659-663.

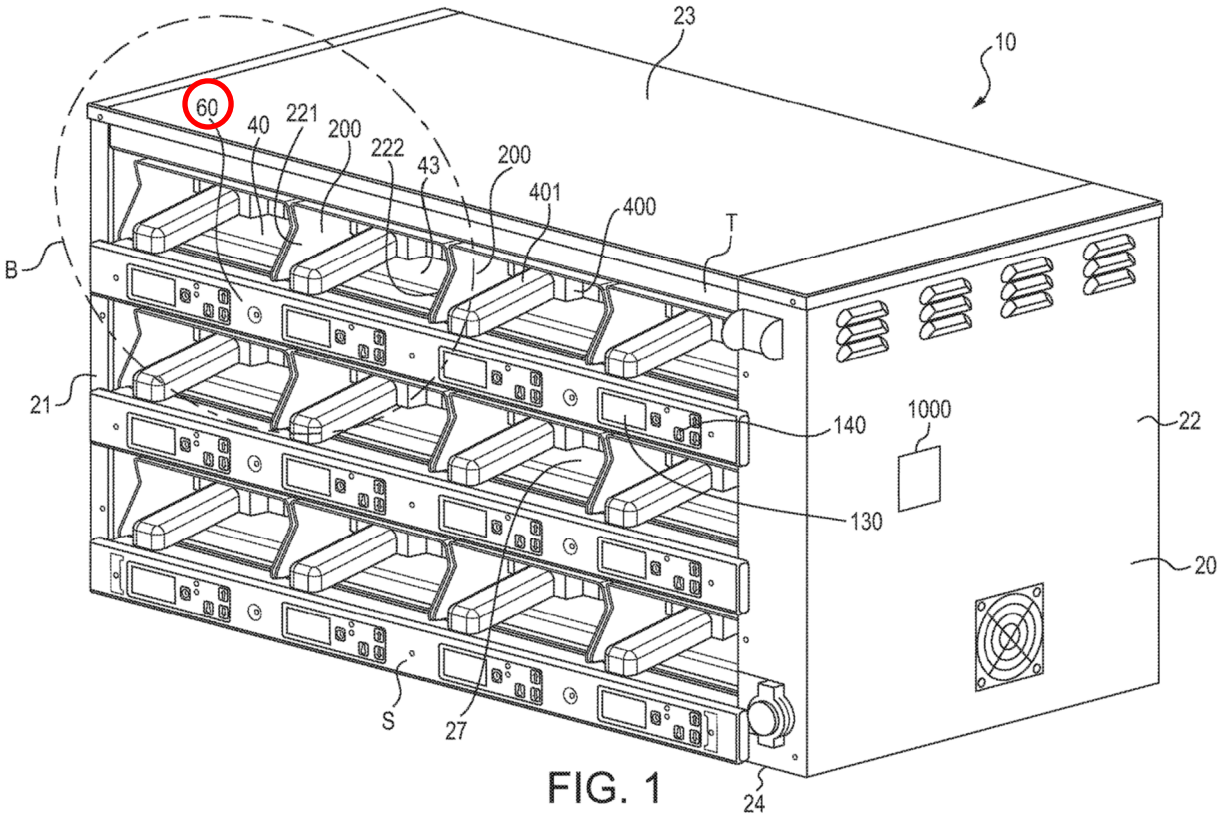

23
10
60
40
221
200
222
43
200
401
400
T
B
21
140
1000
22
130
20
S
27
24

FIG. 1

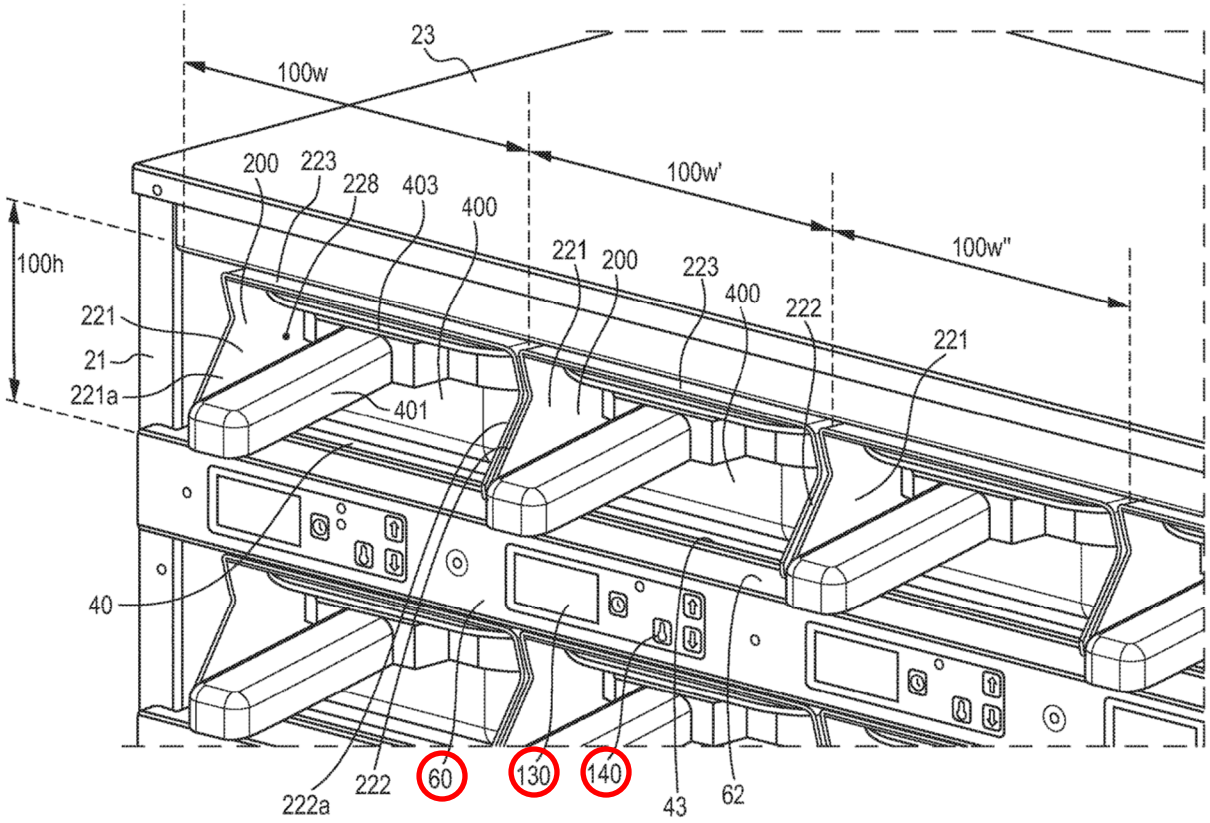

23
100w
100w'
100w"
100h
200
223
228
403
400
221
200
223
400
222
221
221
21
221a
401
40
222a
222
60
130
140
43
62

FIG. 2

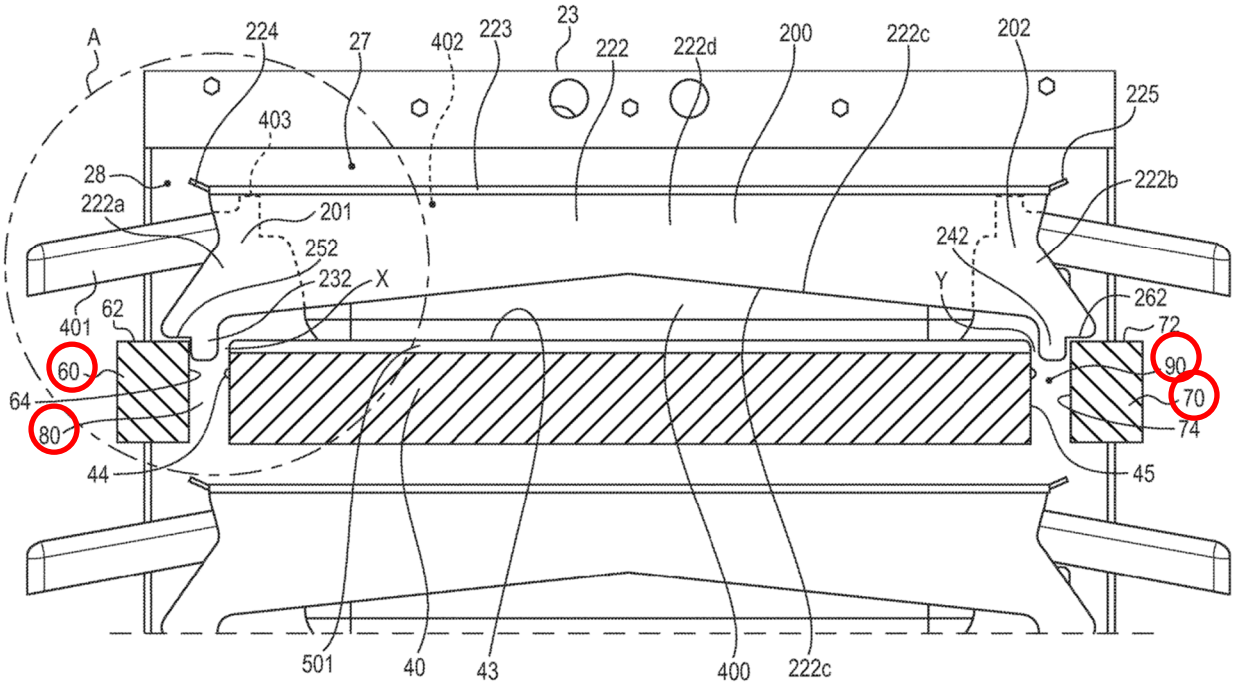
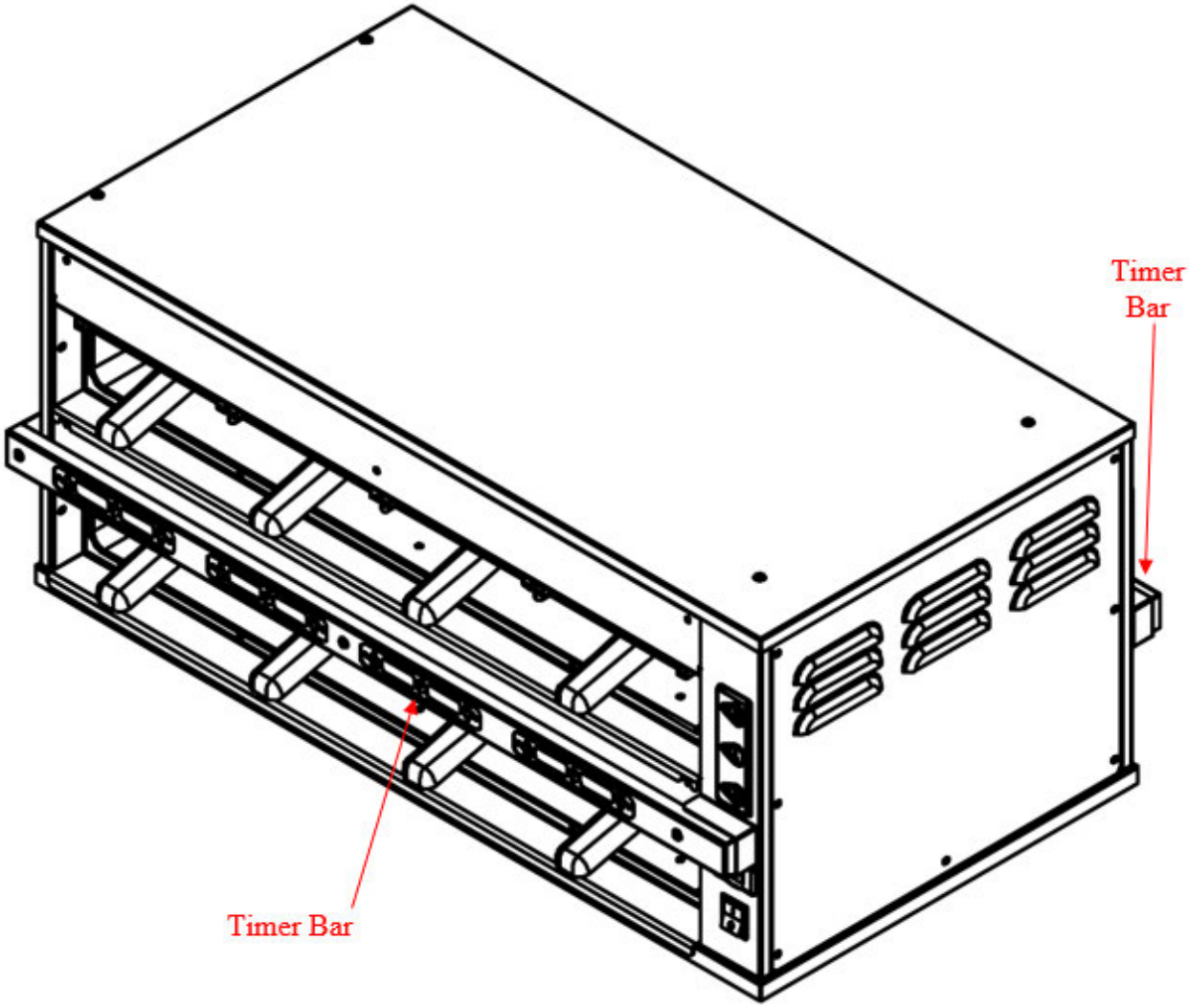
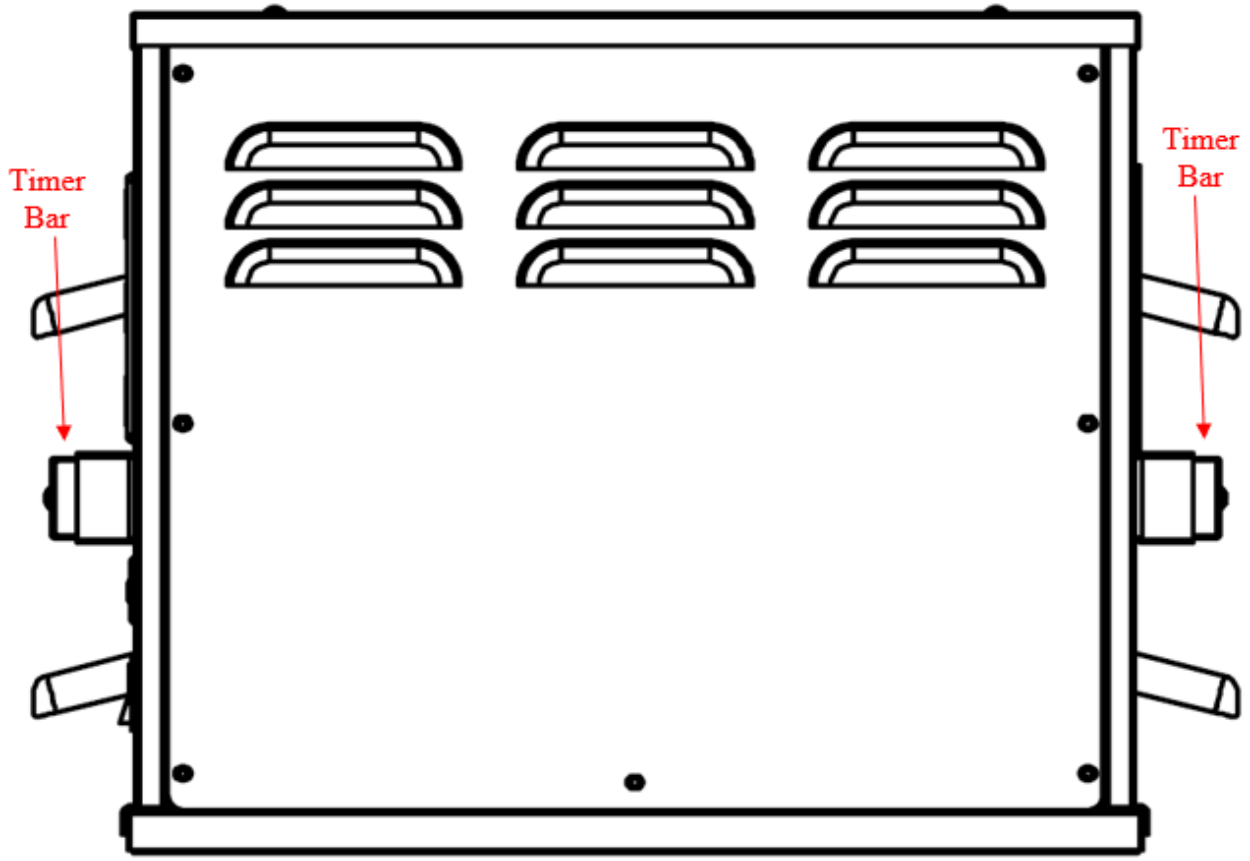

A
224
27
402
223
23
222
222d
200
222c
202
225
403
28
222a
201
252
232
X
222b
242
Y
262
72
401
62
60
64
80
90
70
74
44
45
501
40
43
400
222c

FIG. 5

EX1014: Figs. 1, 2, 5.

Similarly, the IRHS Documents teach front and rear control/timer bars with buttons/displays spaced from the shelves. EX1005: 4, 8, 20, 25; EX1006: 1; EX1007: 28, 32, 51; Section IV; EX1003: ¶¶664-666.

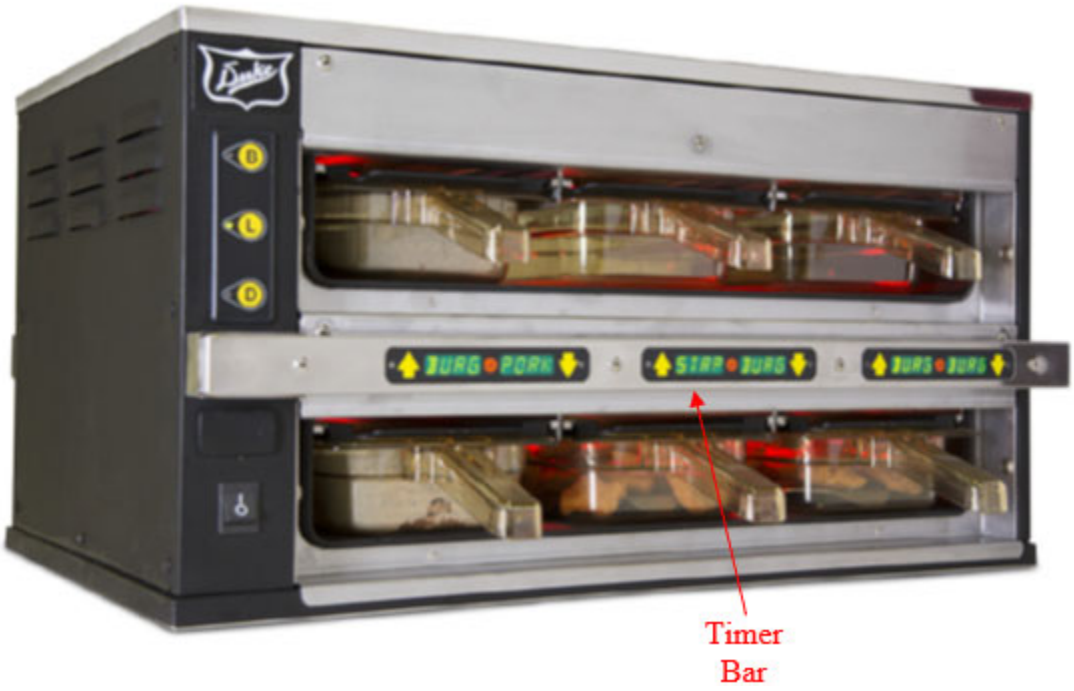


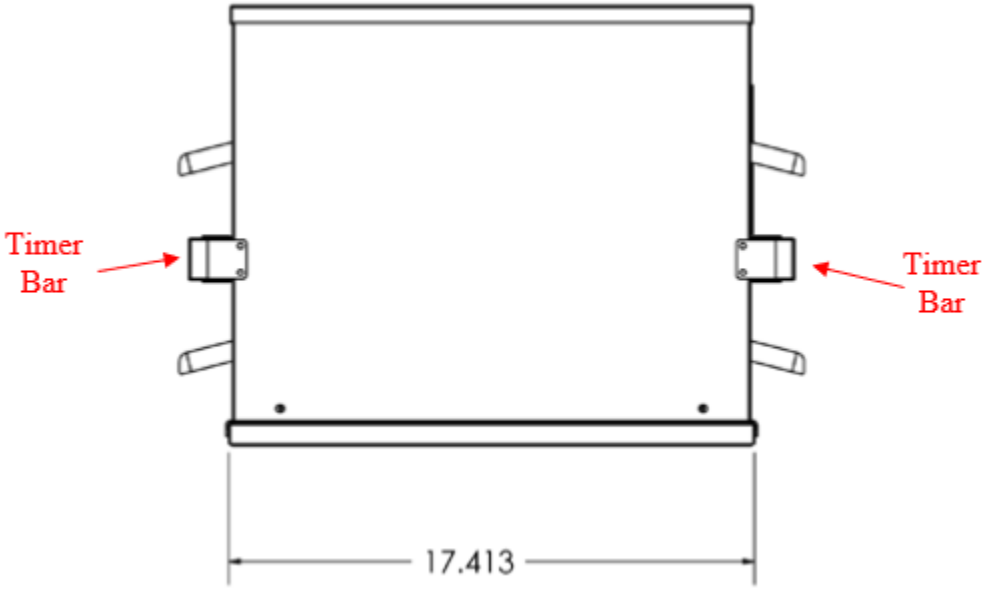



EX1005: 8.



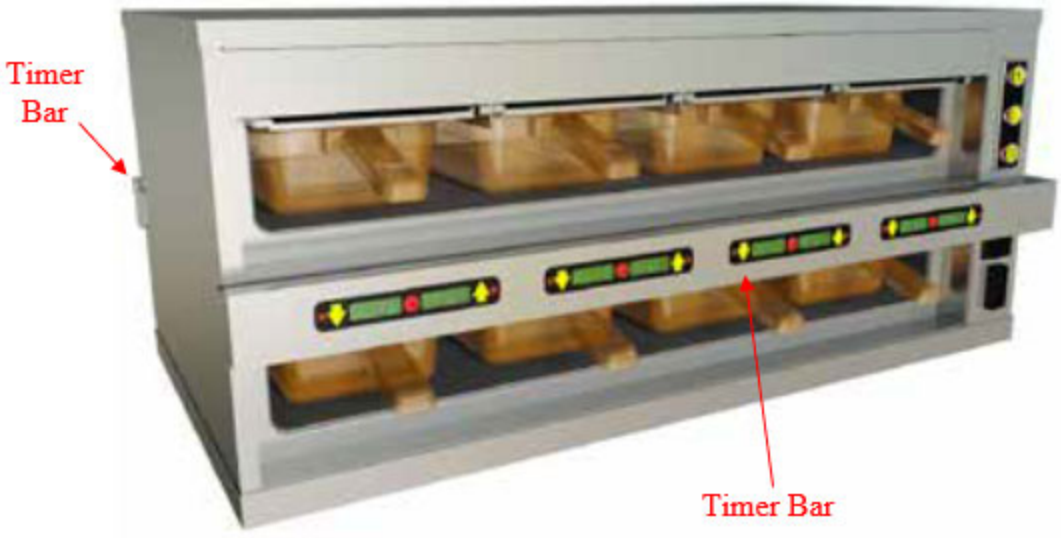

EX1005: 17 (unannotated).



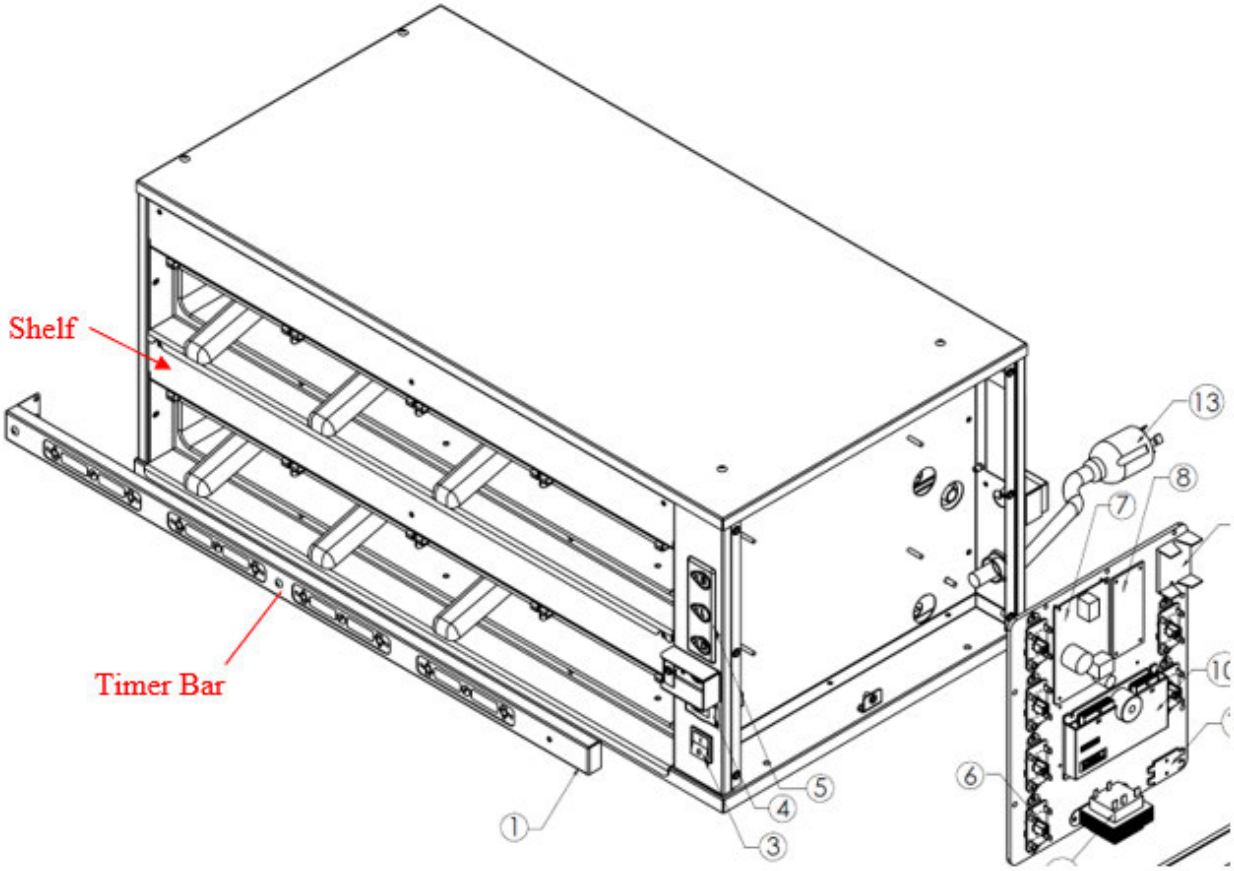




EX1006: 1-2.

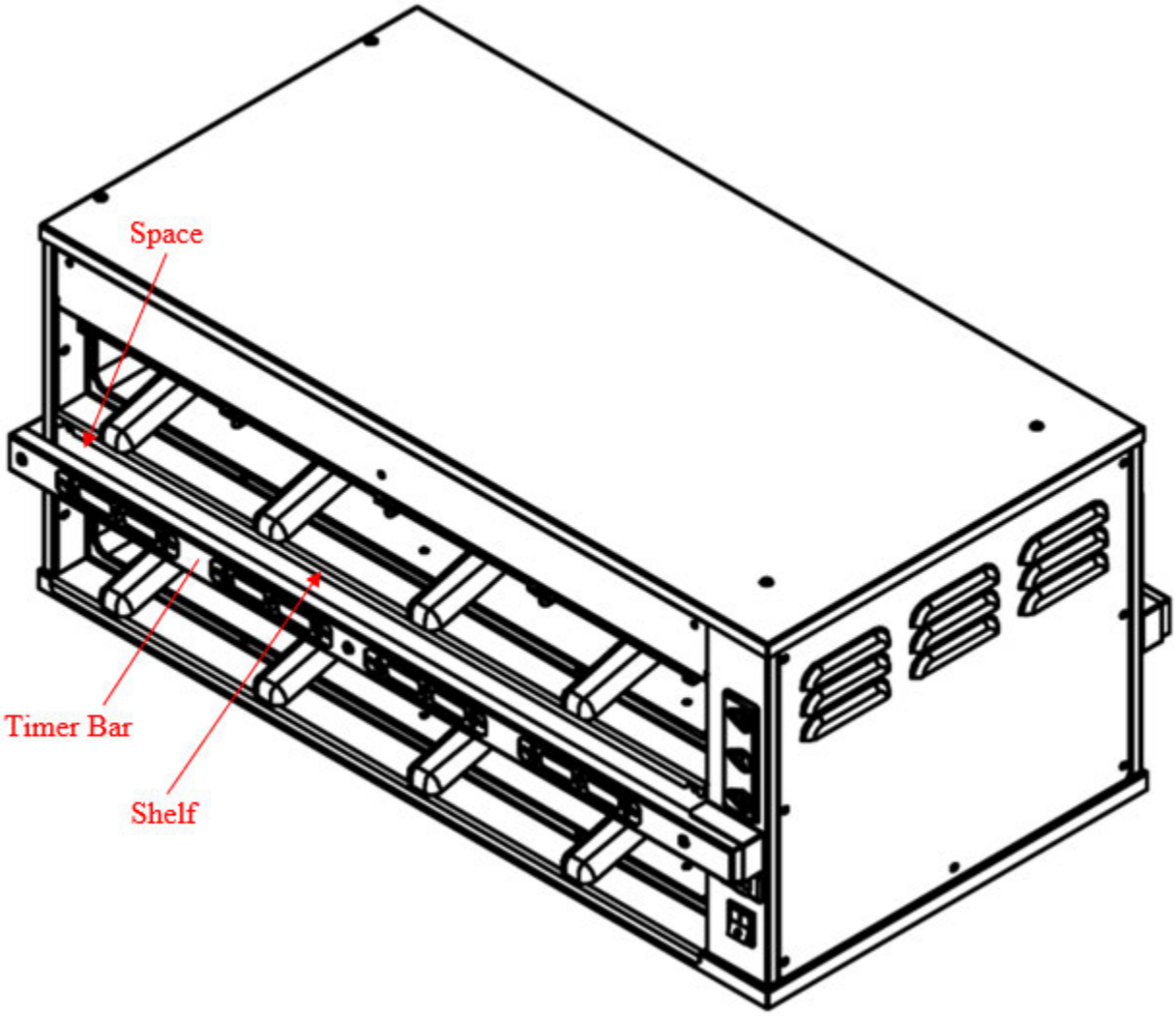


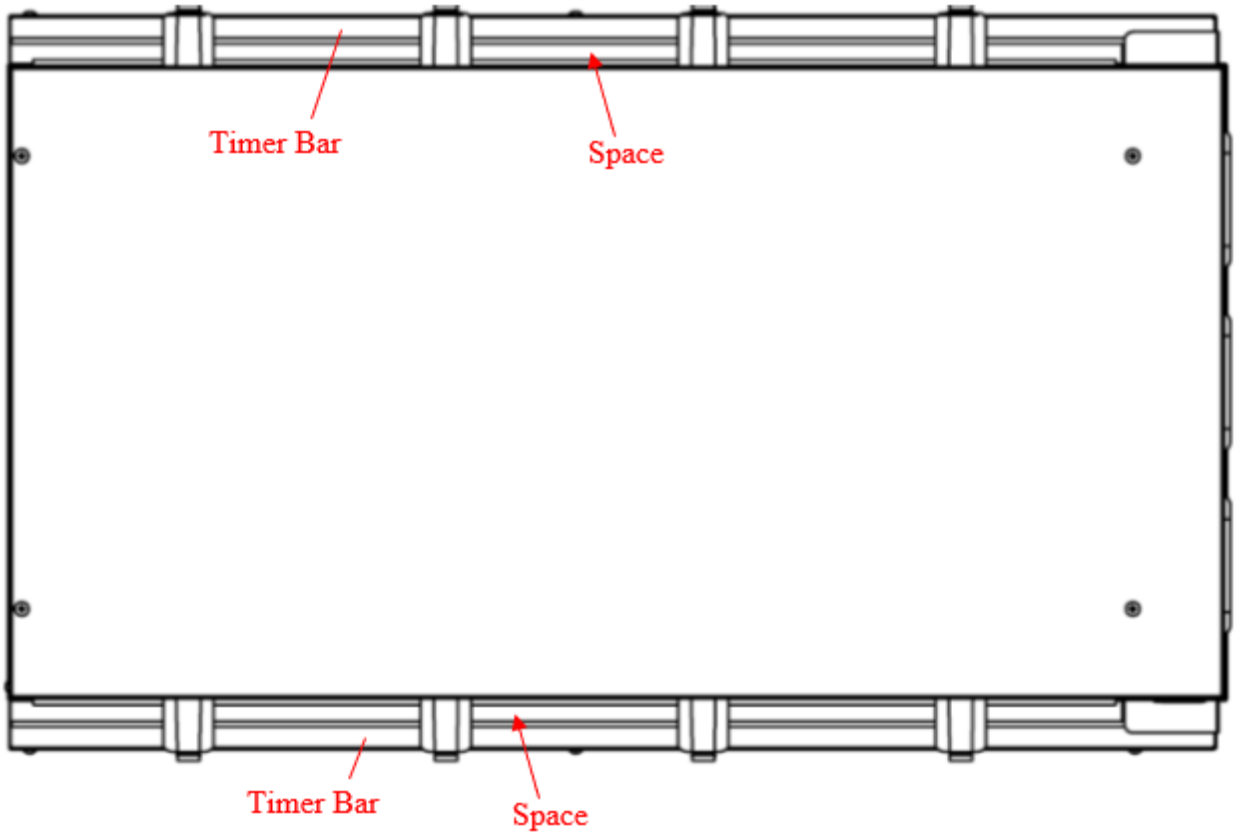




EX1007: 52, 56.

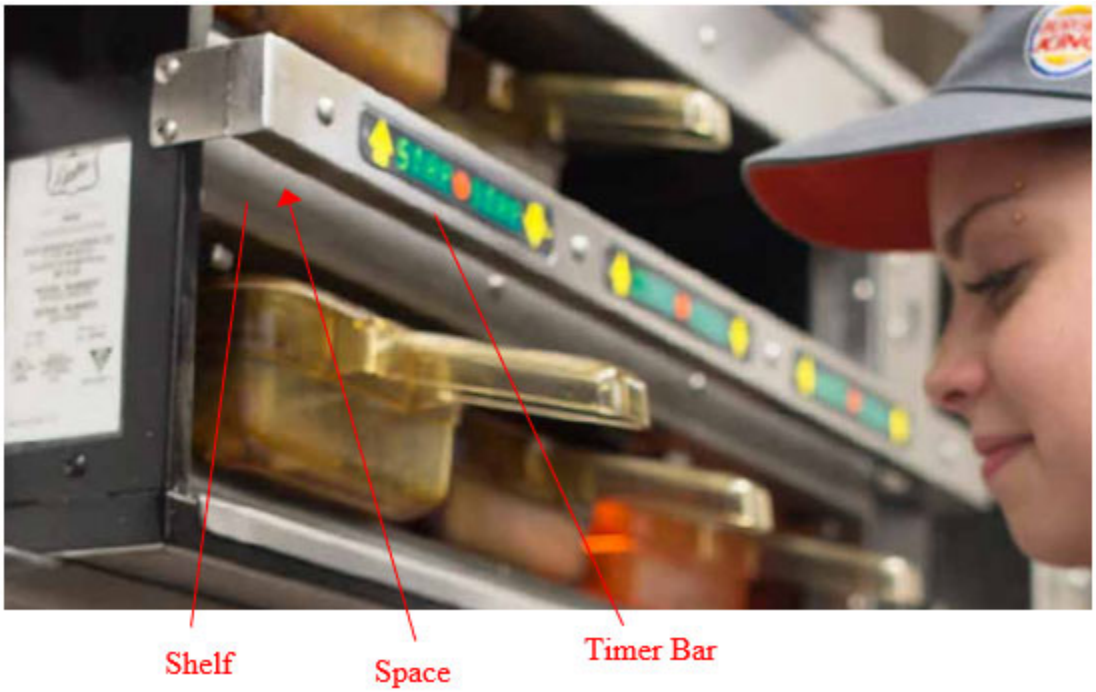



EX1005: 19.


Space
Timer Bar
Shelf

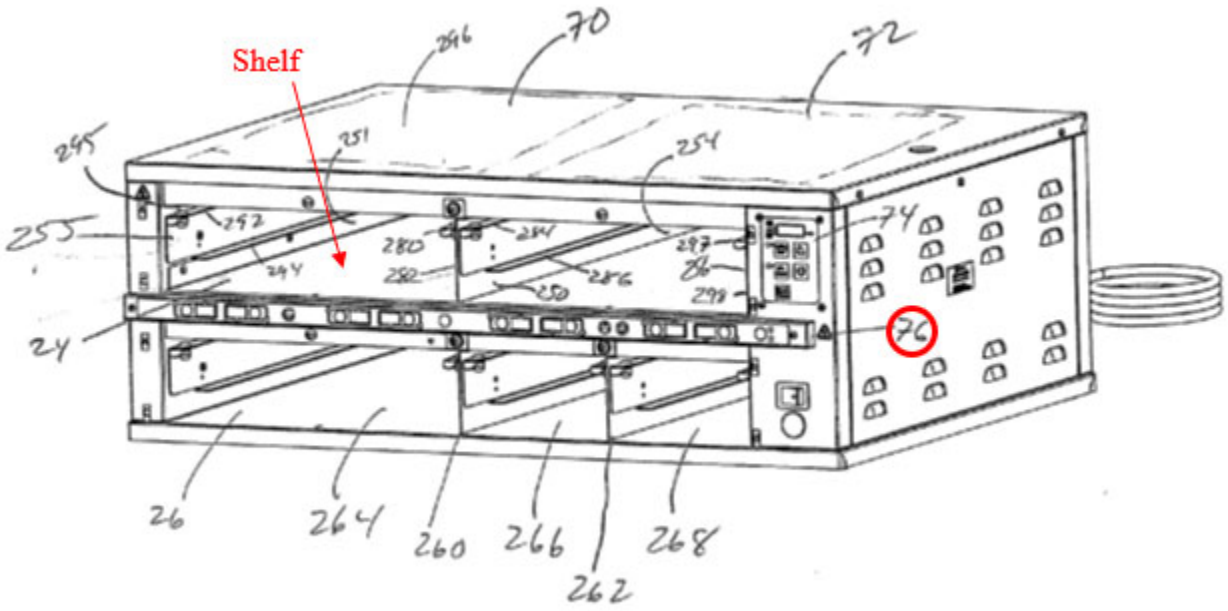


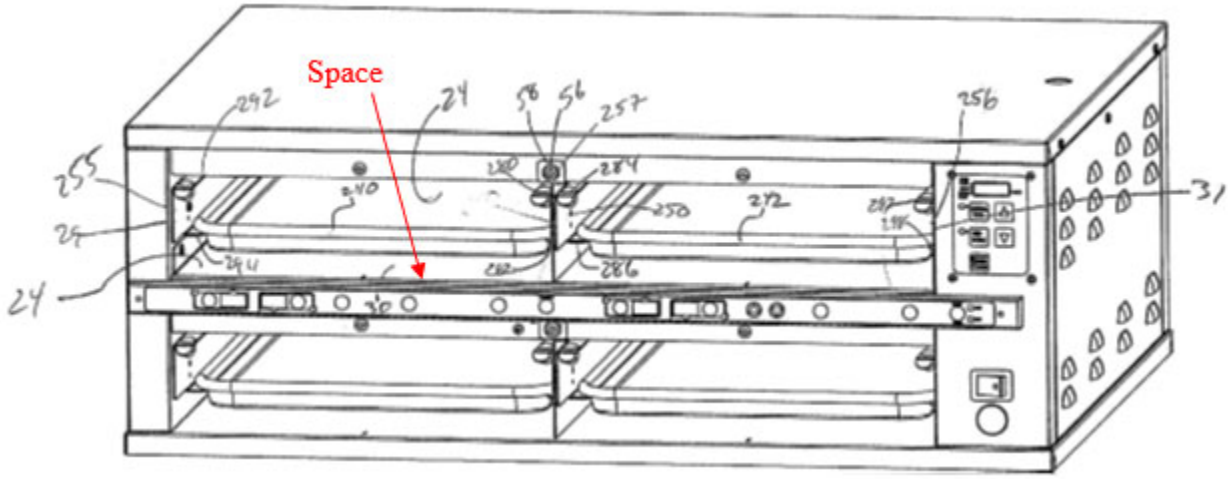

EX1005: 8.

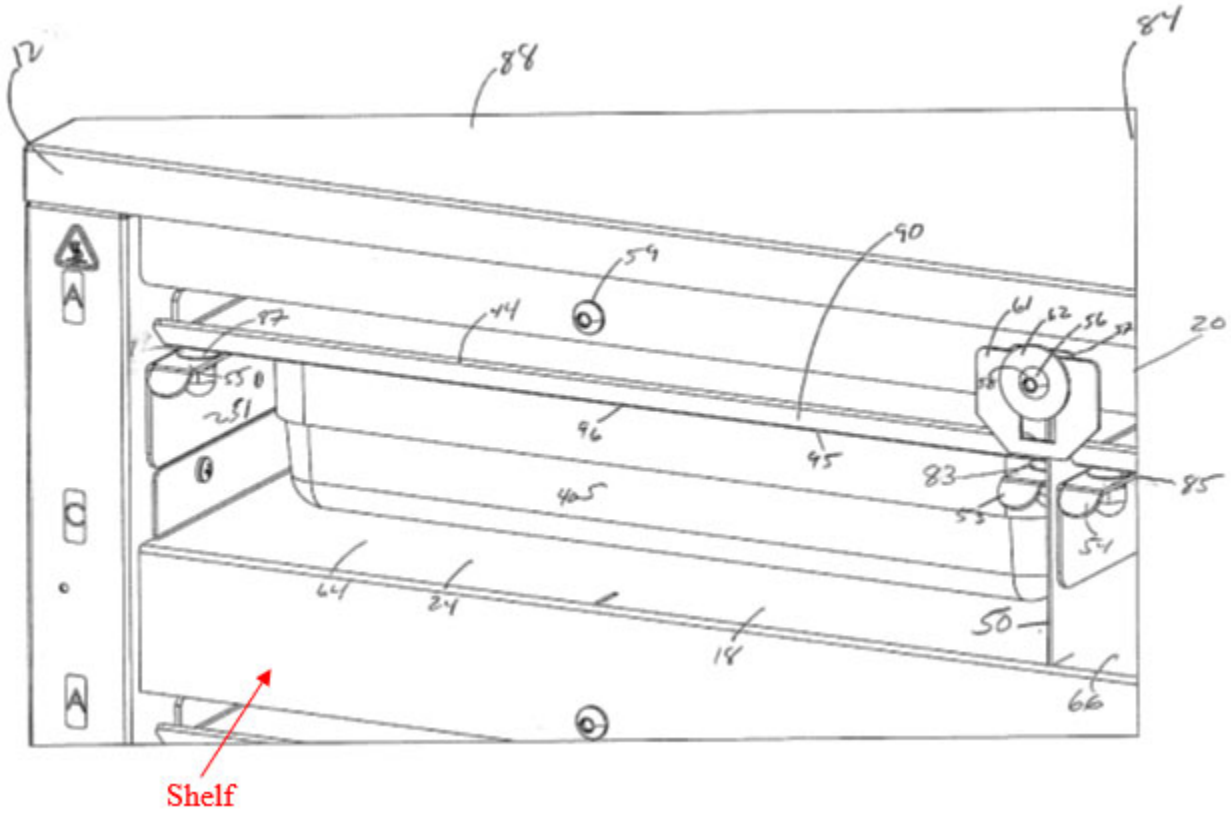


EX1007: 28.

Hartfelder teaches a display/control interface bar (76) spaced in front of a shelf. EX1013: Figs. 3, 4, 9; EX1003: ¶¶667-668.






EX1013: Figs. 3, 4, 9.

In view of Fortmann'197, IRHS Documents, and/or Hartfelder, it would have been obvious to modify Fortmann'748's cabinet to arrange Vaseloff's display/control groups and McMillan's buttons/keys in front and rear timer bar housings spaced forward/rearward from Fortmann'748's shelf. EX1003: ¶¶669-700.

This arrangement would protect Vaseloff's display/control groups and McMillan's buttons/keys from heat generated by heaters in Fortmann'748's shelf. EX1019: 3:52-55; EX1003: ¶670. This would prolong service life of the electronics. EX1029: 2:4-11, 5:41-49; EX1003: ¶670. Spacing between the timer

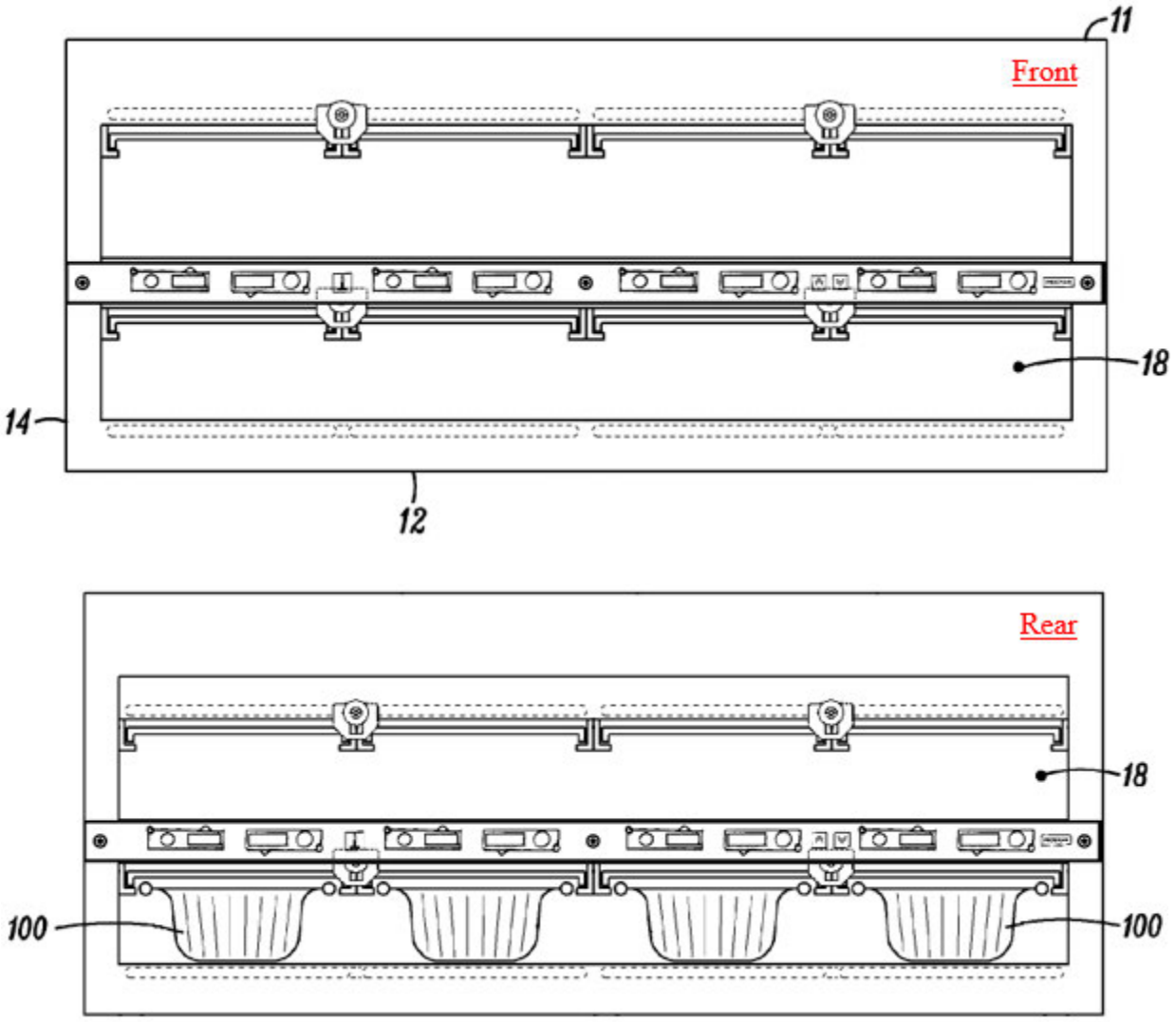
bars and shelf would allow cooling air flow. EX1019: 3:55-57; EX1003: ¶670. Fortmann'197 teaches placing the timer bars "out of … the heated environment." EX1014: 3:32-36; EX1003: ¶670. Arranging Vaseloff's display/control groups and McMillan's buttons/keys in the spaced timer bars facilitates easy access for maintenance, repair, and/or replacement. EX1008: 12-15; EX1013: Figs. 1-4, 9; EX1003: ¶670.

This would have been application of a known technique (spaced timer bars of Fortmann'197, IRHS Documents, and/or Hartfelder) to improve a similar device (Fortmann'748's cabinet) in the same way (front and rear spaced timer bars housing displays/controls) with reasonable expectation of success (functionality of controls unchanged). EX1003: ¶¶672-674.

The front and rear timer bars would be attached to Fortmann'748's chassis proximate the front and rear faces, respectively, per Fortmann'197, IRHS Documents, and/or Hartfelder. EX1005: 8; EX1006: 1; EX1007: 28, 52, 56; EX1008: 12; EX1013: Fig. 3; EX1014: Figs. 1-3; EX1003: ¶675.

Representative illustrations[8] below show a 2x4 Fortmann'748 cabinet modified with front and rear spaced timer bars. EX1003: ¶676.

[8] Further modified below.




EX1010: Figs. 2, 6 (modified).

**7. Discrete Lids for Each Bay**

Fortmann'748 discloses removeable lids (40) for compartments. EX1010: ¶[0017]; EX1003: ¶¶677-678.

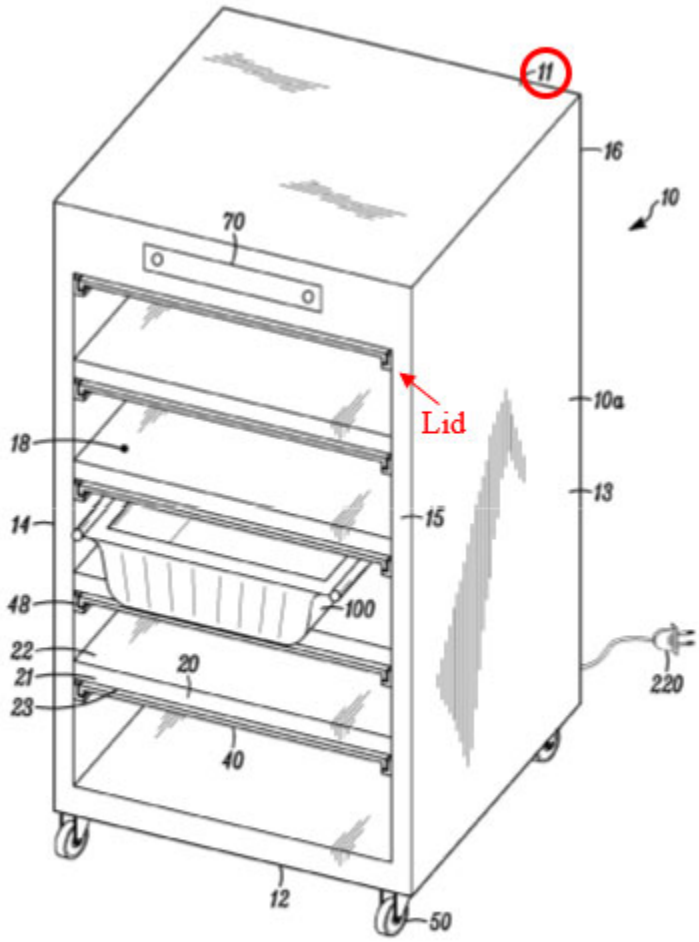



FIG. 1

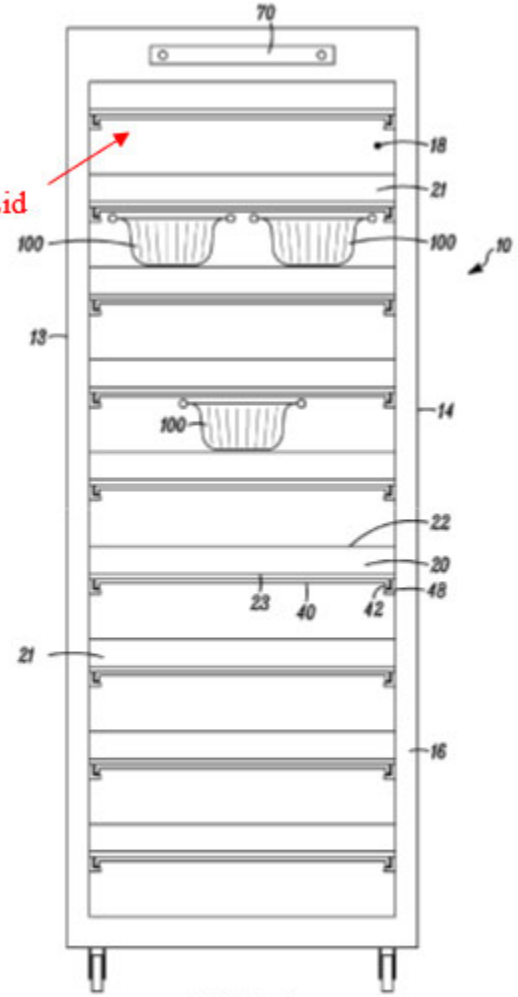



FIG. 6

EX1010: Figs. 1, 6.

Jones, Fortmann'197, and IRHS Documents disclose a discrete lid for each pan/bay. EX1012: ¶[0072], Fig. 1B; EX1014: 4:50-53, Figs. 1-4; EX1005: 8; EX1006: 1-2; EX1007: 53, 58; EX1014: 7:31-32; EX1003: ¶679.

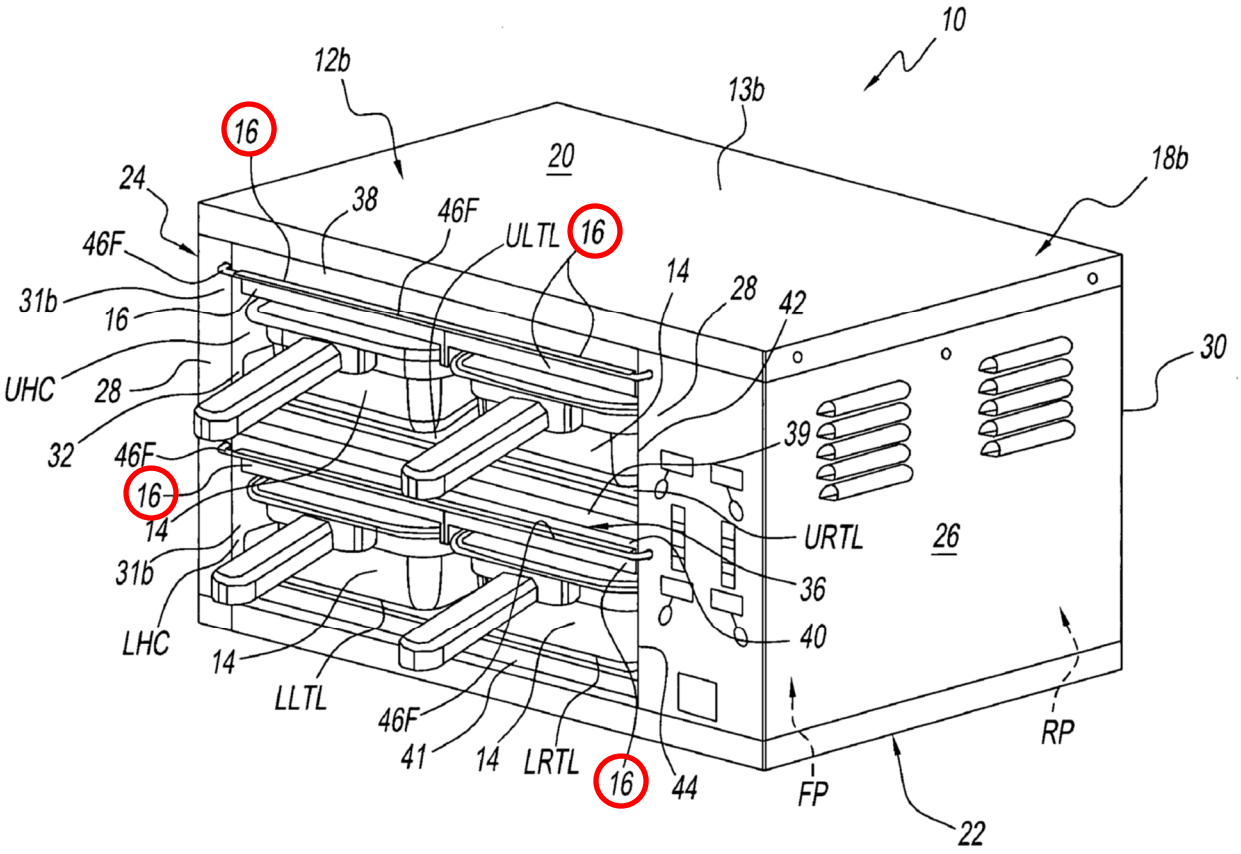



Fig. 1B

EX1012: Fig. 1B.

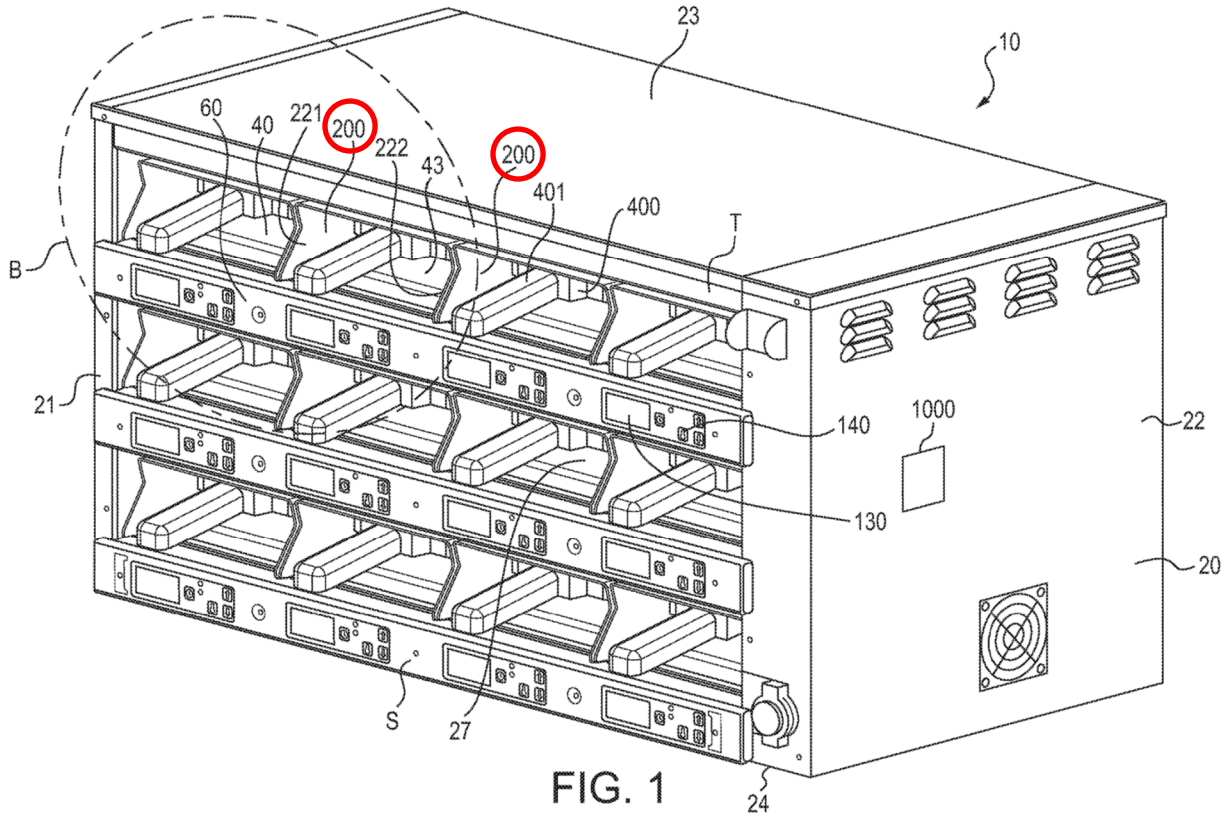
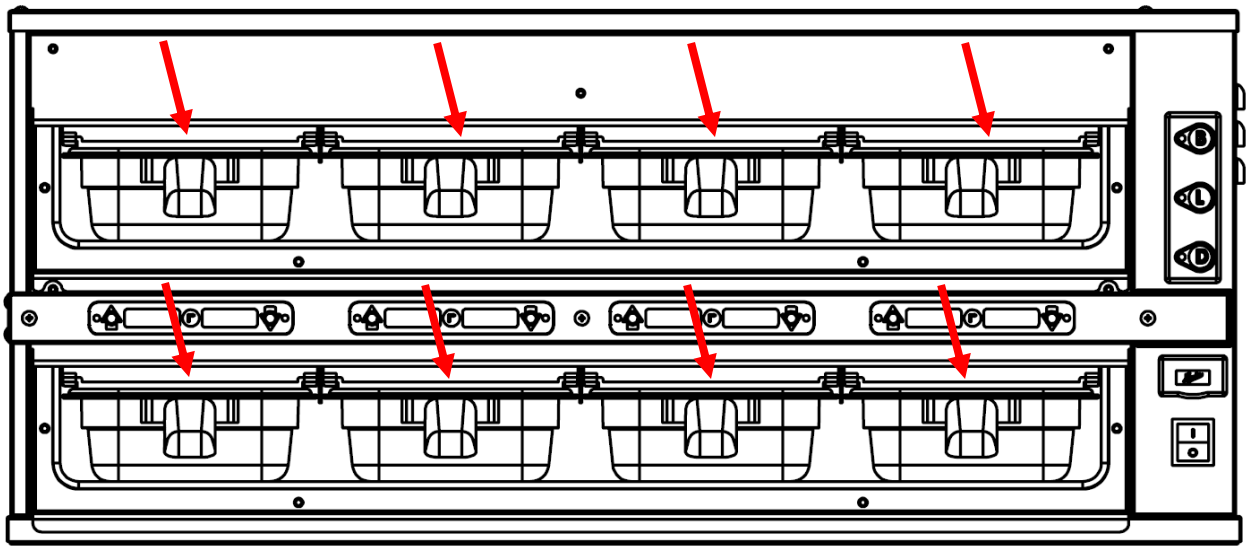



FIG. 1

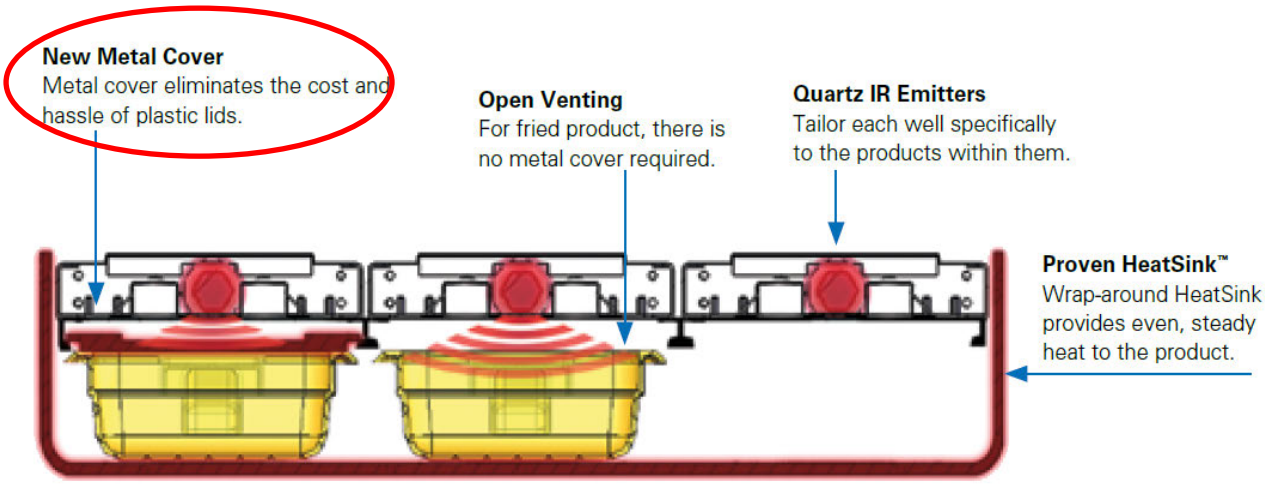
EX1014: Fig. 1.



EX1005: 8.



EX1006: 2.

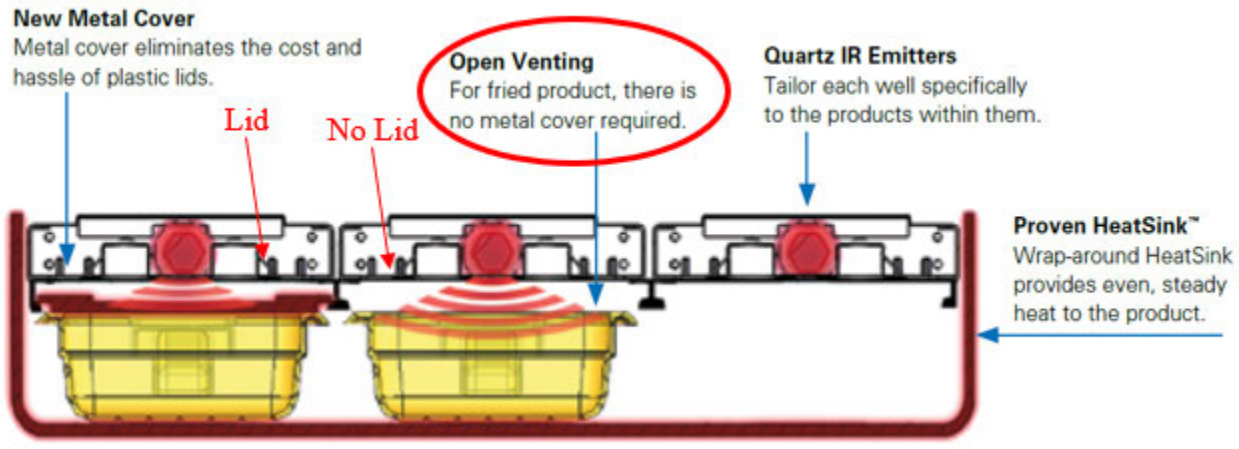



EX1007: 53.

In view of Jones, Fortmann'197, and/or IRHS Documents, it would have been obvious to modify Fortmann'748's cabinet to have discrete lids for each bay. EX1003: ¶680.

This would further Fortmann'748's goal of "zones" for different food types by allowing selective use/removal of individual pan lids, increasing flexibility for each compartment to hold more food types (more temperature/moisture combinations) at one time. EX1010: ¶[0024]; EX1003: ¶681. For example, installed lids would hold moisture in pans for non-fried foods and removed lids would permit moisture venting for fried foods. EX1007: 53; EX1013: ¶[0044]; EX1014: 7:50-67; EX1016: ¶[0003]; EX1017: 6:45-48; EX1003: ¶¶682-683.

It would have been obvious to modify Fortmann'748's cabinet to have individual lids for each pan/tray to provide more flexibility in food placement, more discrete and better venting/sealing control, and increased holding capacity for different holding combinations (temperature/sealing/venting). EX1007: 53; EX1019: 1:36-39, 1:43-45; EX1003: ¶¶684-685.

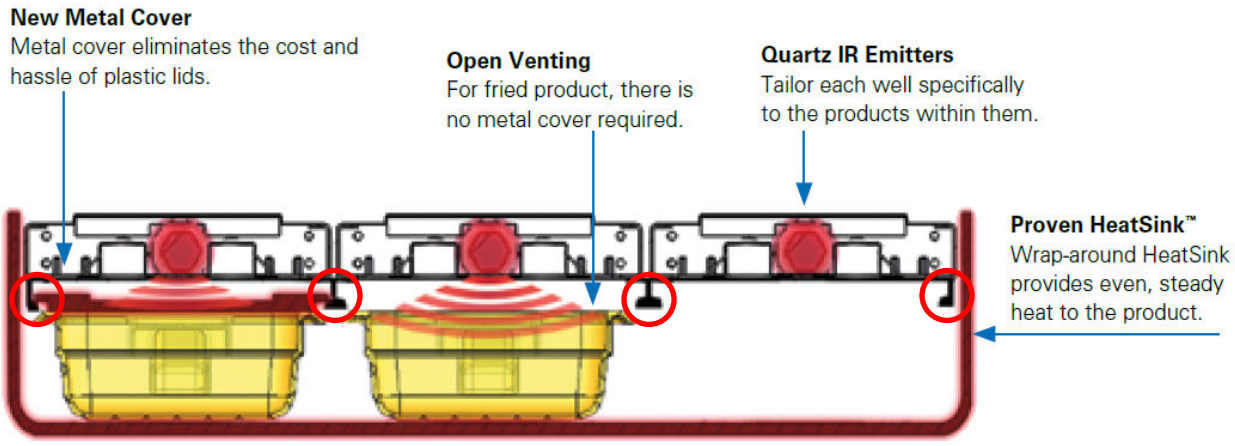



EX1007: 53.

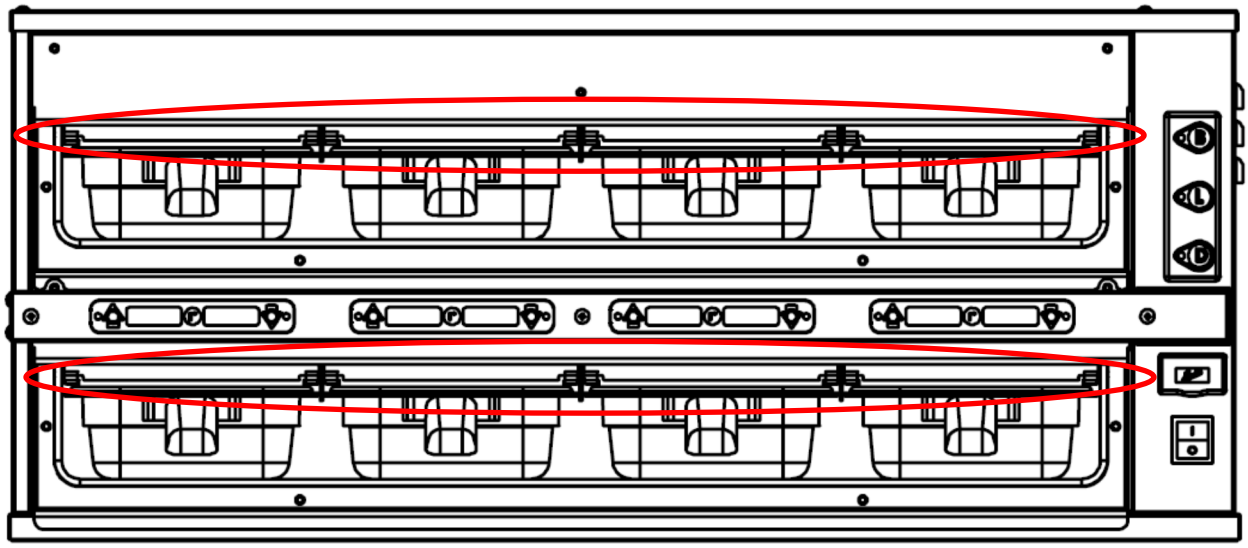
Dedicated lids would be smaller and easier to move and clean. EX1003: ¶686. Discrete lids for each pan/tray would improve pan sealing to retain moisture. EX1007: 10, 21, 58; EX1003: ¶¶687-688.

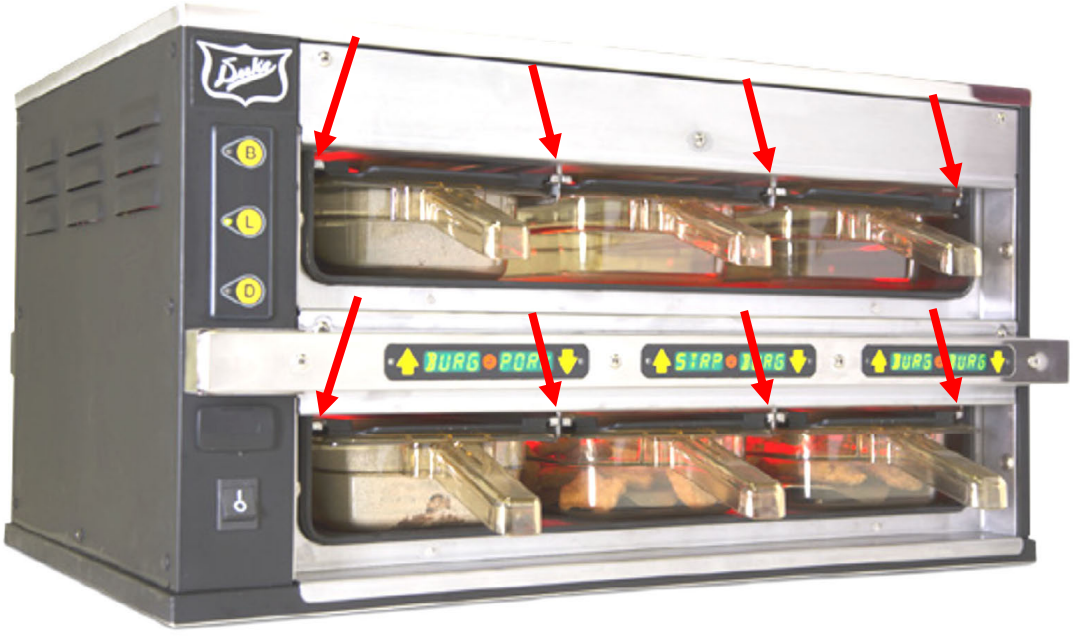
This modification would merely require duplicating and resizing Fortmann'748's lids to cover one pan and duplicating Fortmann'748's tracks to hold the additional lids. *In re Harza*, 274 F.2d 669, 671 (C.C.P.A. 1960) ("mere duplication of parts has no patentable significance"); EX1003: ¶689. In duplicating the tracks, it would have been obvious to secure them to the overlying structure, per Fortmann'748. EX1010: ¶[0018]; EX1003: ¶690.

In view of the IRHS Documents, the POSA would have duplicated the Fortmann'748 lid shelves across the compartments to support the individual lids. EX1005: 4, 8, 20-21; EX1007: 53, 56, 58; EX1003: ¶¶691-692.

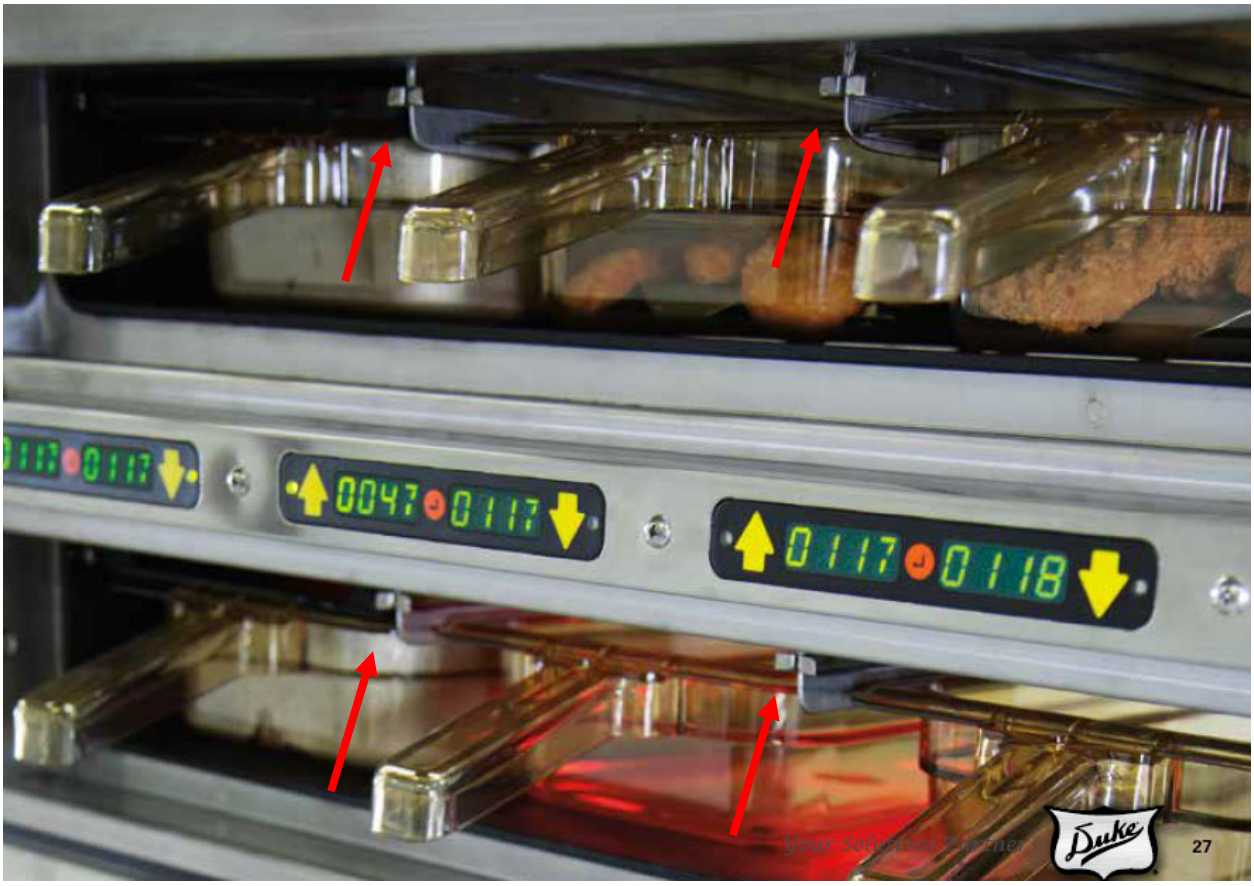



EX1007: 53.

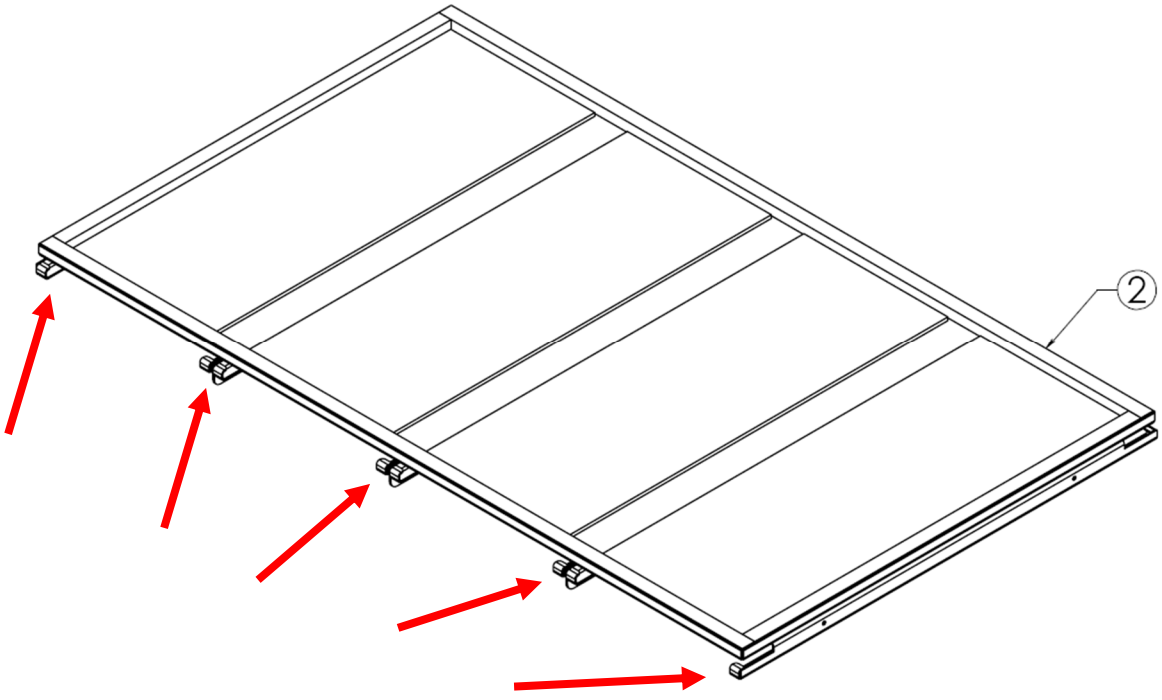




EX1006: 2.




EX1007: 52.

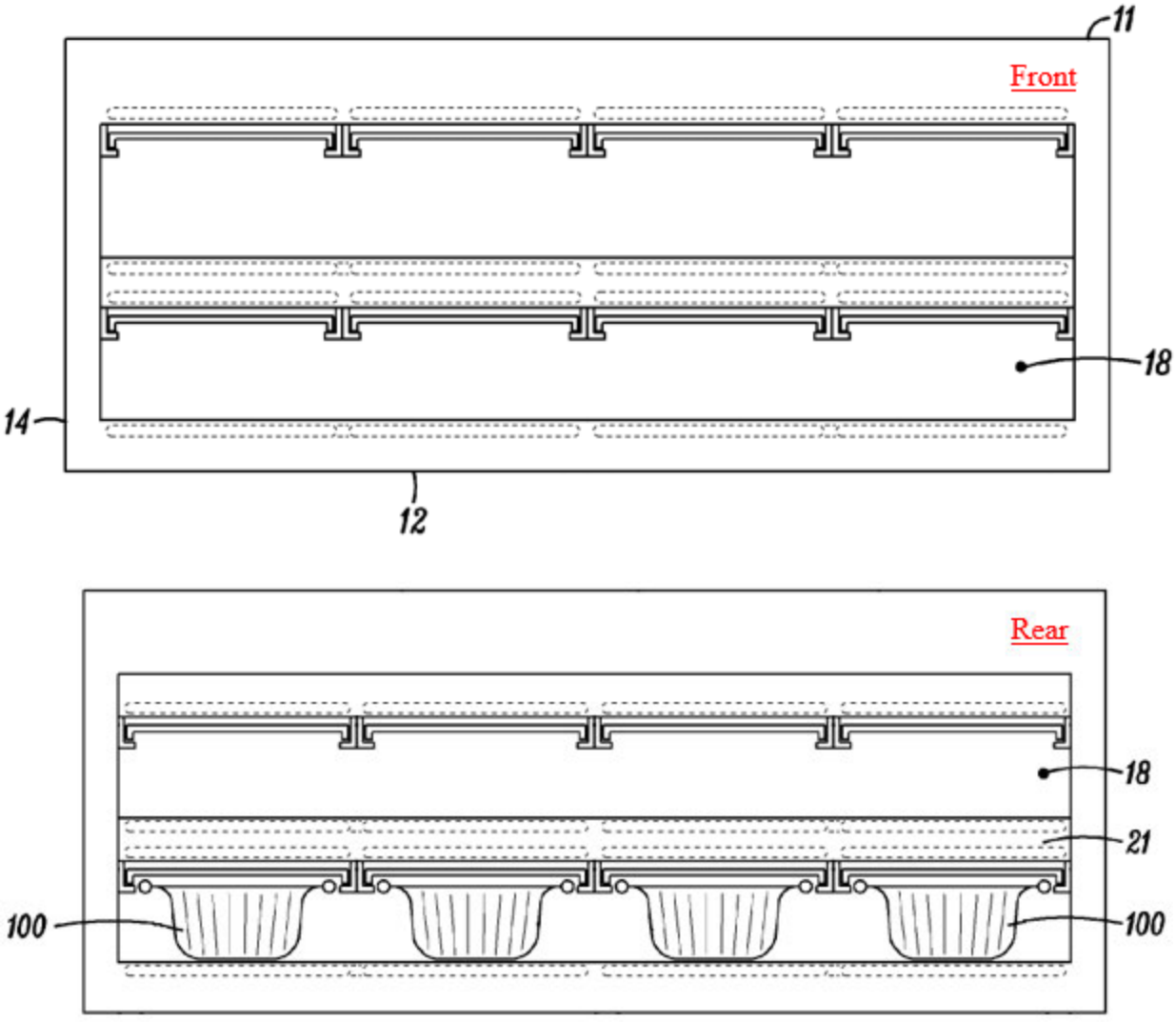


EX1005: 19.

Resizing and duplicating lids and duplicating lid shelves would have been application of a known technique (plurality of lids and lid holding shelves per the IRHS Documents, Jones, and/or Fortmann'197) to improve a similar device (Fortmann'748's cabinet) in the same way (independent lids supported by dedicated lid supporting shelves secured to overhead structure) with reasonable expectation of success (purpose of lid holding shelves not changing). EX1012: ¶[0072], Fig. 1B; EX1014: 4:50-53, 7:31-32, Figs. 1-4; EX1005: 8; EX1006: 1-2; EX1007: 53, 58; EX1003: ¶¶693-694.

It would have been obvious to secure tracks to the top panel for supporting lids directly below the top panel, as Fortmann'748 teaches mounting tracks to overhead structure. EX1010: ¶[0018]; EX1003: ¶¶695-696. This would have been application of a known technique (Fortman'748 mounting a track to overhead structure) to improve a similar device (tracks for the top compartment) in the same way (mounting the top track to overhead structure) with reasonable expectation of success (similar units using lids as intended). EX1003: ¶¶697-698.

Schematic illustrations below show a 2x4 Fortmann'748 cabinet modified with individual lids. EX1003: ¶699.




EX1010: Figs. 2, 6 (modified).

**8. Latches**

Fortmann'748's lids (40) are removable. EX1010: ¶[0017]; EX1003: ¶¶700-701.

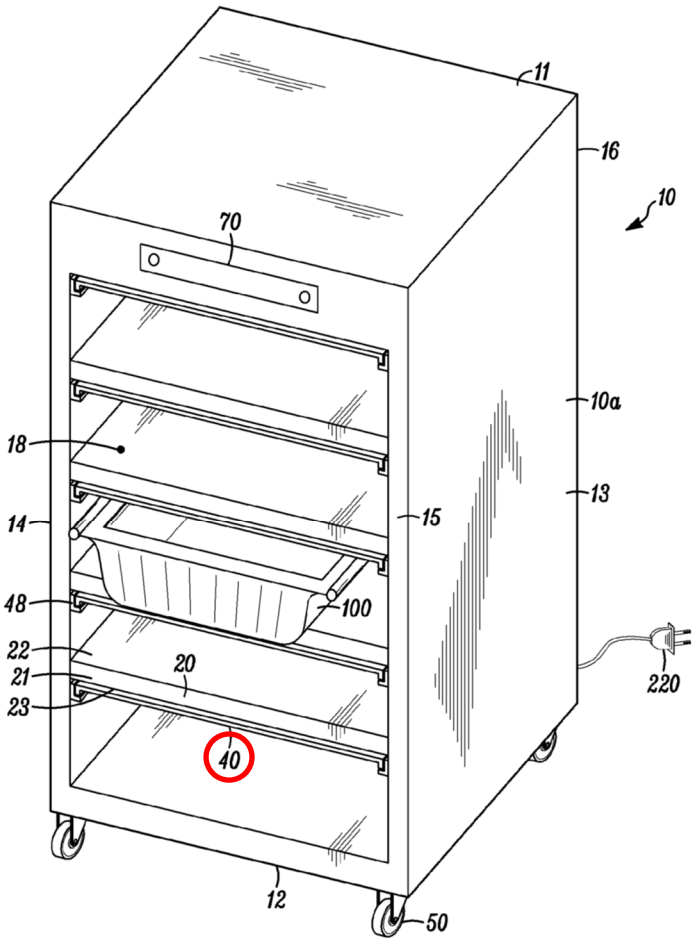



*FIG. 1*

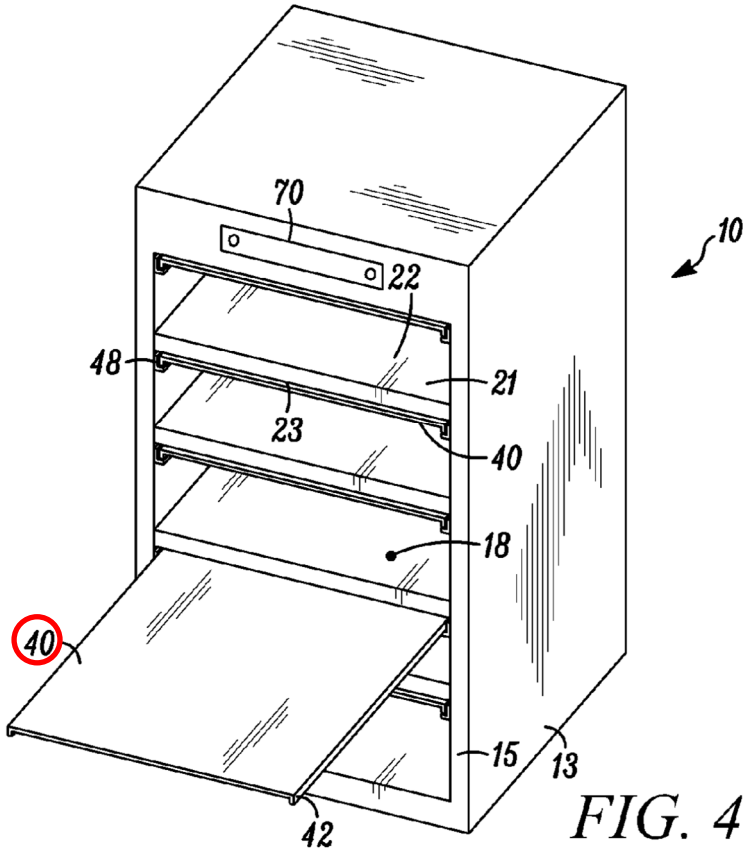



FIG. 4

EX1010: Figs. 1, 4.

Hartfelder's and Shei'099's stops (61)/(88) retain lids (44, 46, 80). EX1013: ¶[0058]; EX1017: 6:9-32; EX1003: ¶¶702-705.

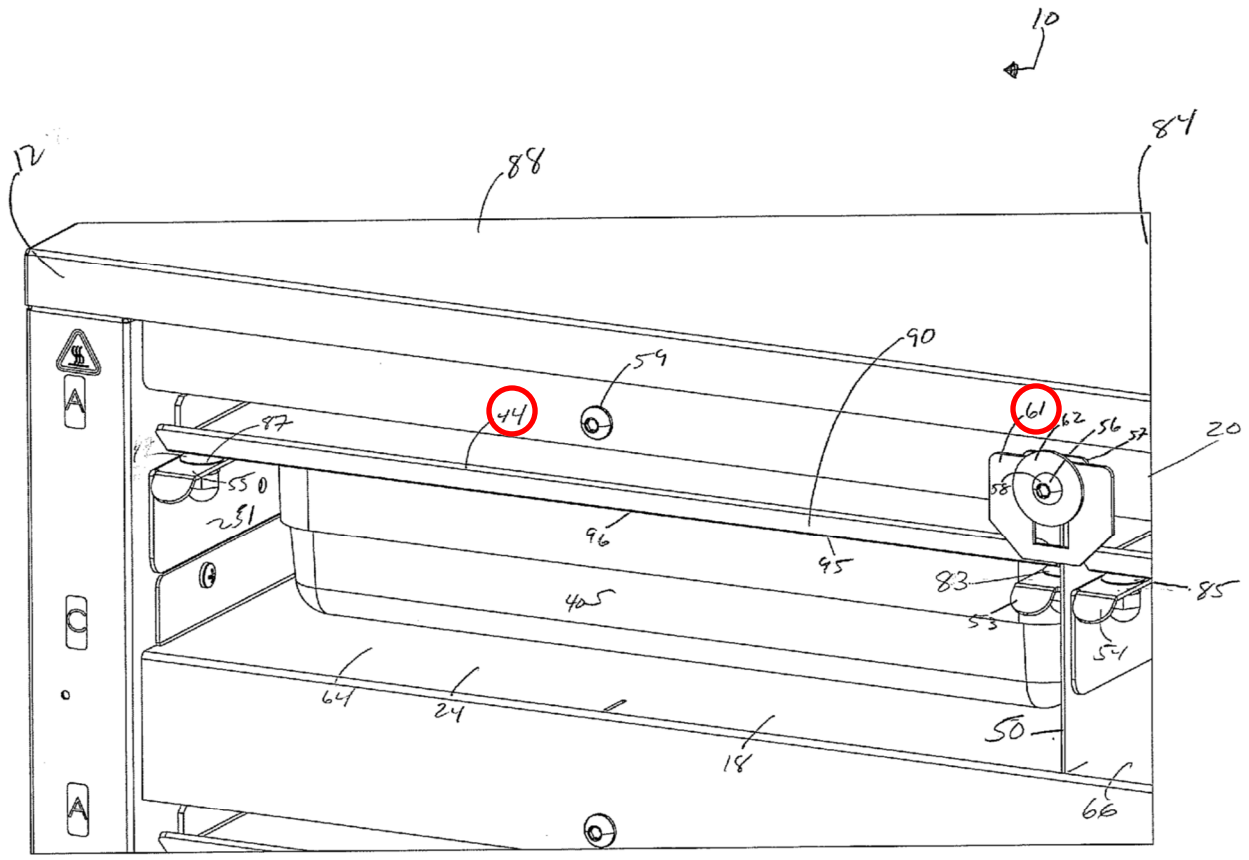



FIGURE 9

EX1013: Fig. 9.

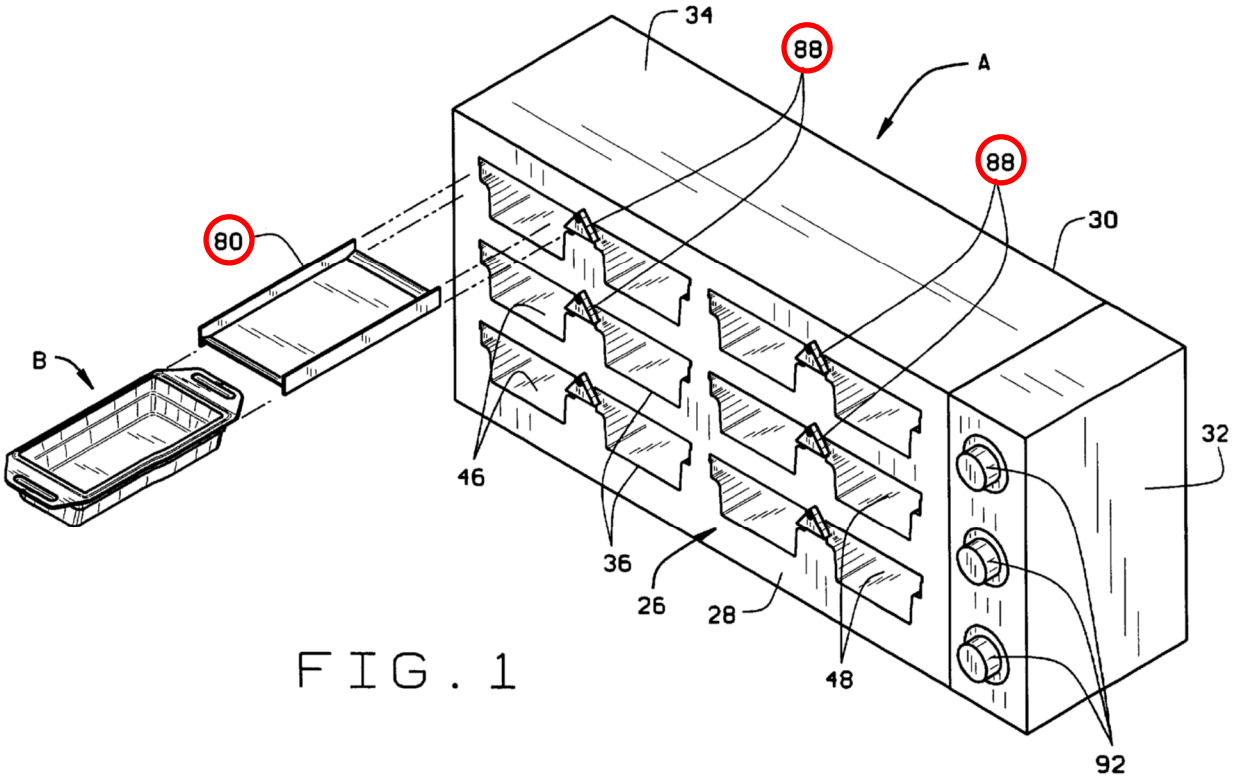



FIG. 1

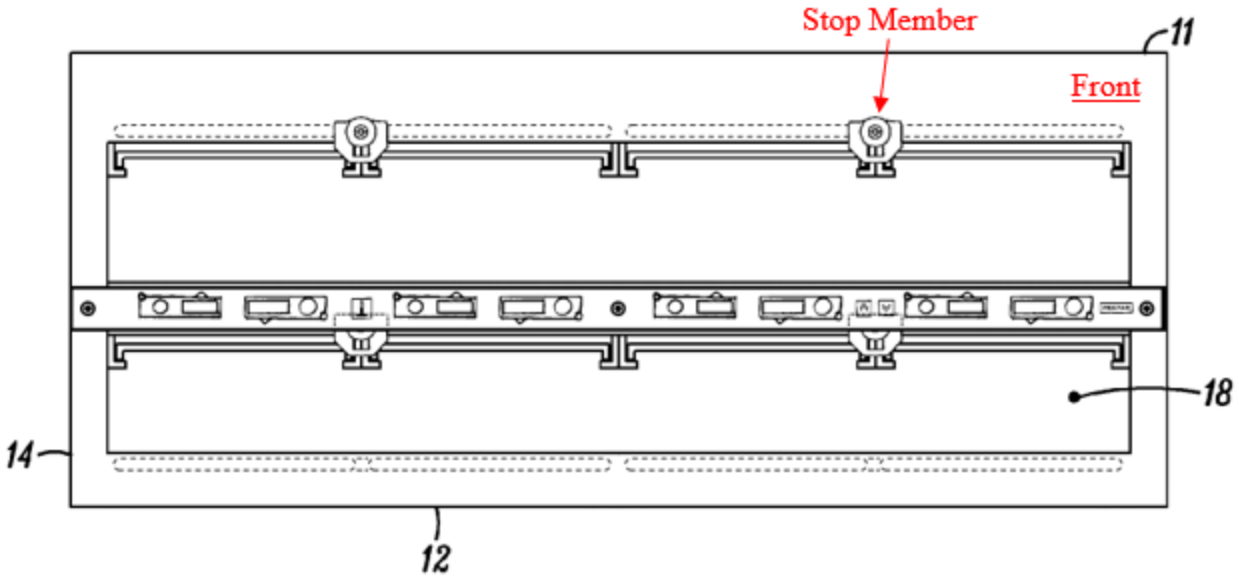
EX1017: Fig. 1.

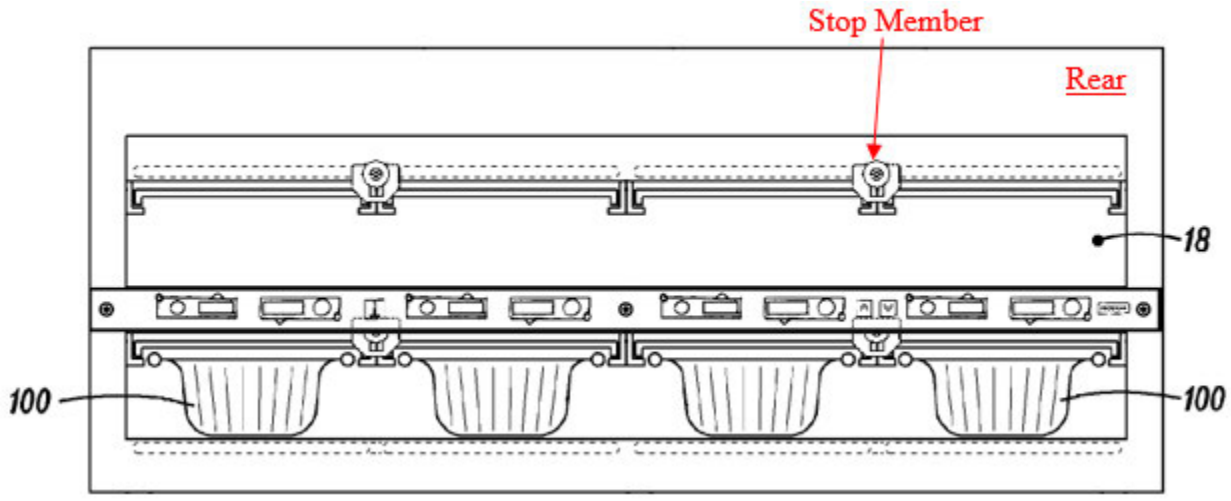
It would have been obvious to modify Fortmann'748's cabinet to include Hartfelder's or Shei'099's stops for retaining lids on the lid-holding shelves. EX1013: ¶[0058]; EX1003: ¶706. Stops would prevent lids from moving (inadvertent lid removal/displacement) during pans insertion and removal, ensuring proper lid position for covering pans. EX1013: ¶[0058]; EX1017: 6:19-22; EX1003: ¶707.

This would have been using a known technique (Hartfelder's or Shei'099's lid retaining stops) to improve a similar device (Fortmann'748's cabinet with lids) in the same way (retaining lids in place while inserting/removing pans) with

reasonable expectation of success (stops performing same function in same way). EX1013: ¶[0058]; EX1003: ¶¶708-709.

In implementation, each stop would be on the face of the chassis/shelf between two lids as in Hartfelder and Shei'099. EX1003: ¶710. Representative illustrations below show a 2x4 Fortmann'748 cabinet including Hartfelder's stops. EX1003: ¶711. A modification implementing Shei'099's stops would be similar but with Shei'099's stops. EX1003: ¶711.



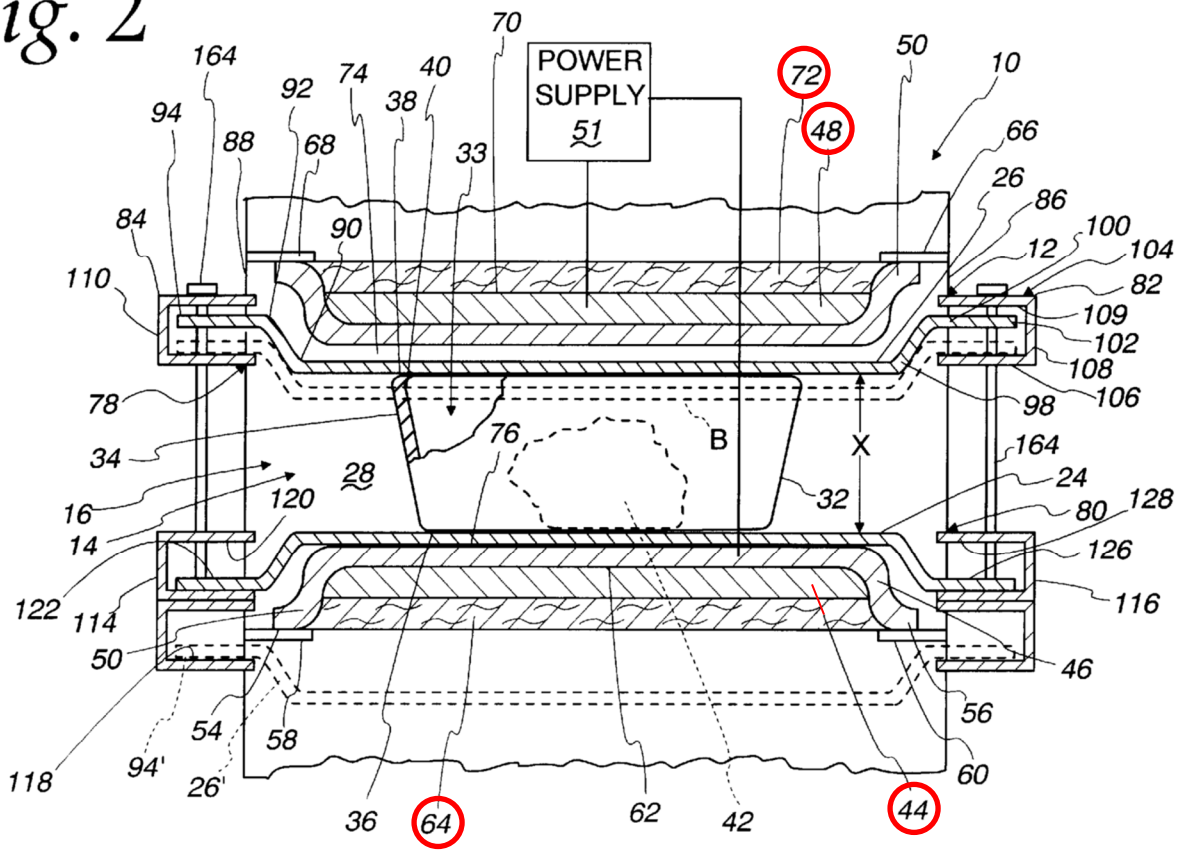



EX1010: Figs. 2, 6 (modified).

**9. Insulation**

Fortmann'967 and Fortmann'197 teach insulation (64, 72) backing and between heating elements (44, 48, 501, 521-524). EX1018: 3:64-65, 4:4-38; EX1014: 9:32-37, Fig. 10; EX1003: ¶¶712-719.

Fig. 2




EX1018: Fig. 2.

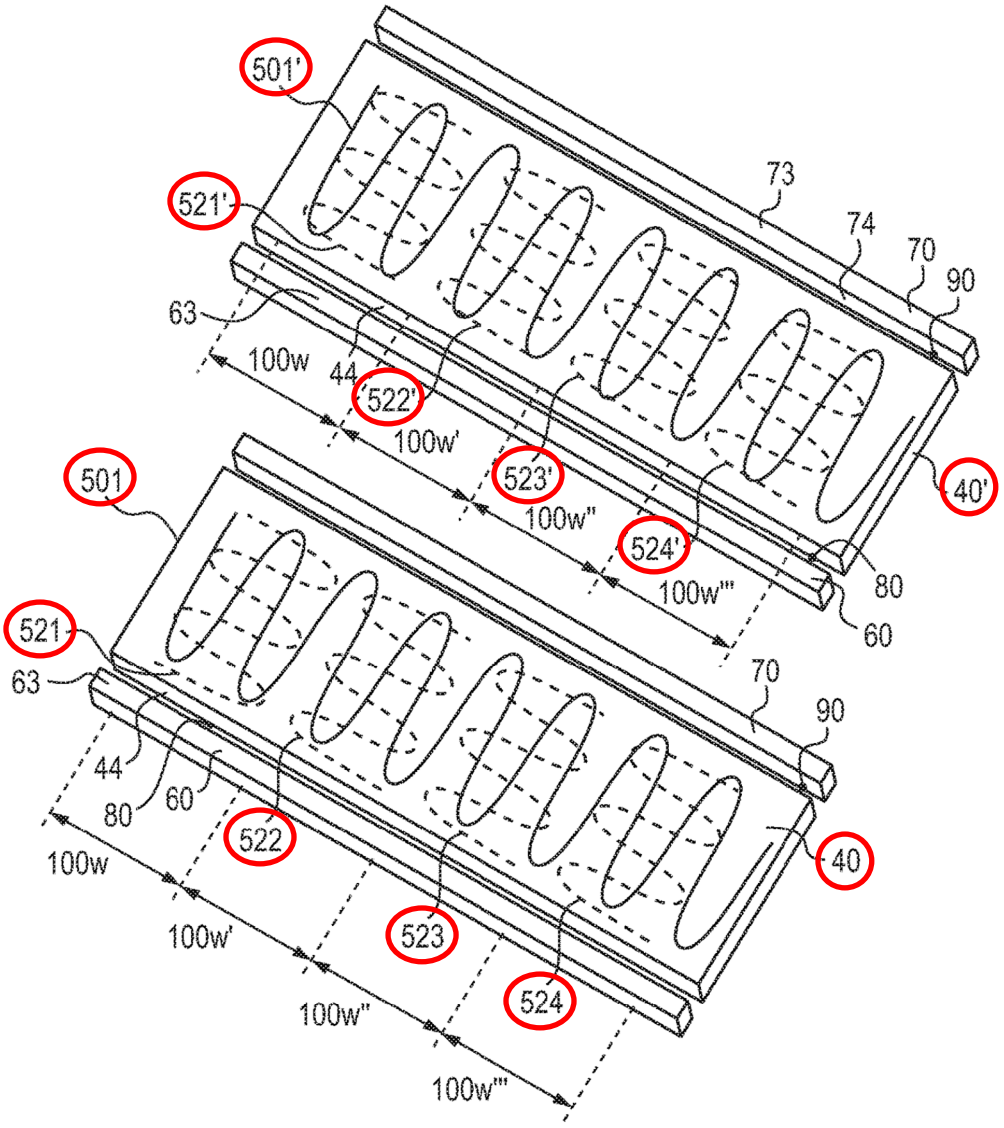



FIG. 10

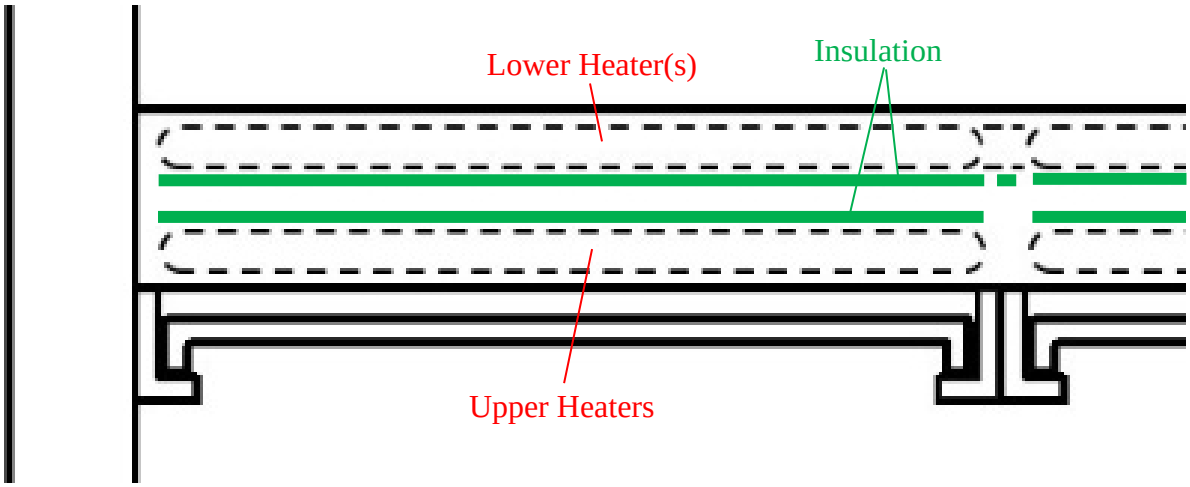
EX1014: Figs. 1, 10.

It would have been obvious to add shelf insulation in Fortmann‘748’s modified cabinet to direct heat from the lower heaters into the compartment above and direct heat from the upper heaters into the compartment below. EX1014: 9:32-

37; EX1003: ¶720. Insulation would increase compartment thermal separation, increase heating accuracy and efficiency, and reduce power consumption. EX1007: 8, 11; EX1003: ¶¶721-722.

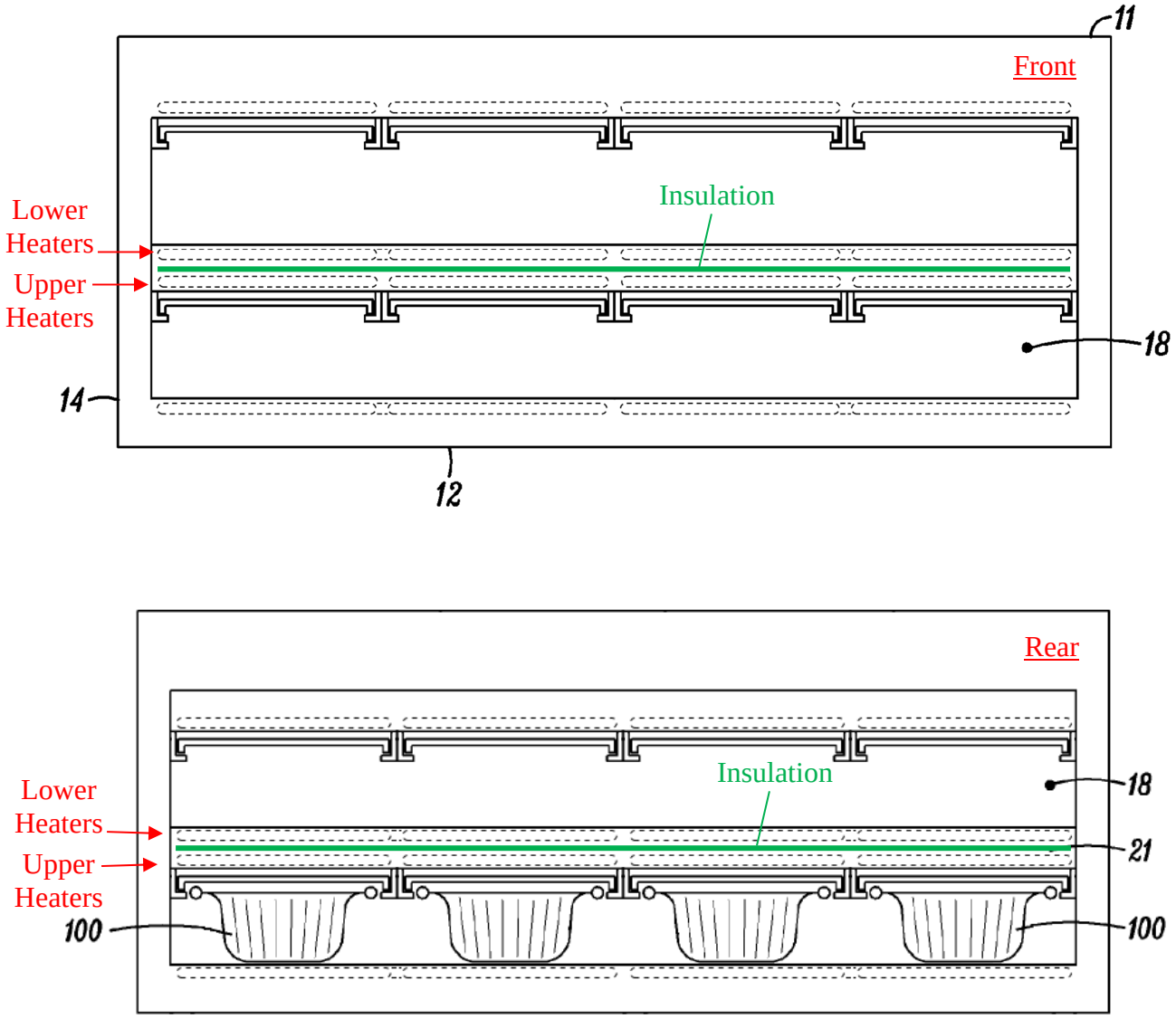
This modification would have been using a known technique (Fortmann'967's and/or Fortmann'197's insulation) to improve a similar device (Fortmann'748's cabinet) in the same way (arrangement taught by Fortmann'967 and/or Fortmann'197) with reasonable expectation of success (similar units using insulation as intended). EX1018: 4:33-38; EX1014: 9:32-37; EX1003: ¶¶723-725.

Schematic illustration below shows insulation backing the shelf heating elements based on Fortmann'967. EX1018: 4:33-38; EX1003: ¶¶726-727.




EX1010: Fig. 2 (modified, enlarged).

Schematic illustrations below show insulation between shelf heating elements based on Fortmann'197. EX1014: 9:32-37; EX1003: ¶¶728-730.




EX1010: Figs. 2, 6 (modified).

### B. Independent Claim 1/Claim 13

#### 1.P

Fortmann'748's food warming cabinet (10) includes multiple zones for food pans. EX1010: ¶¶[0014], [0024]; EX1003: ¶¶731-733.

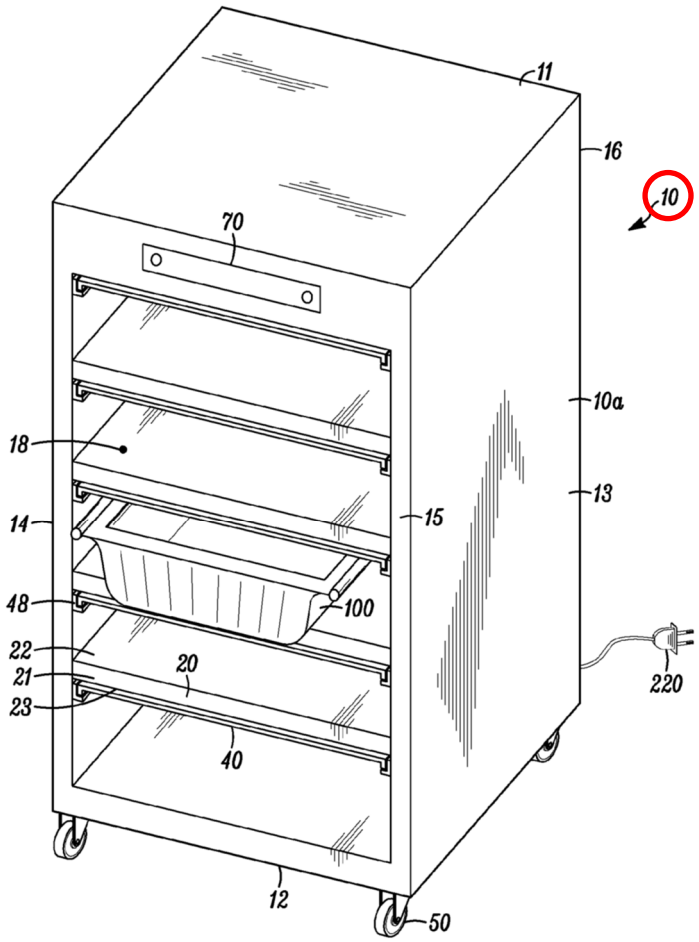



FIG. 1

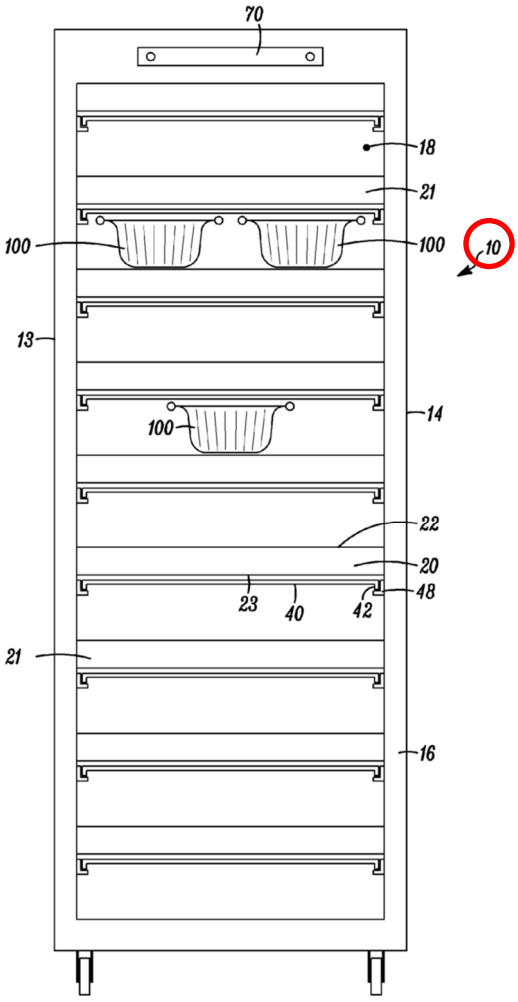
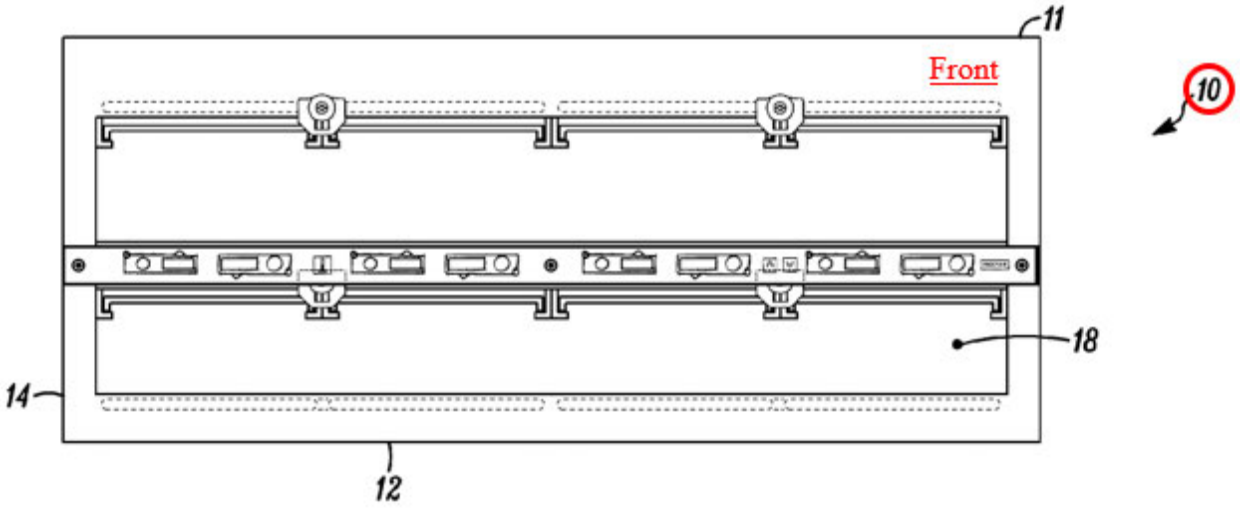
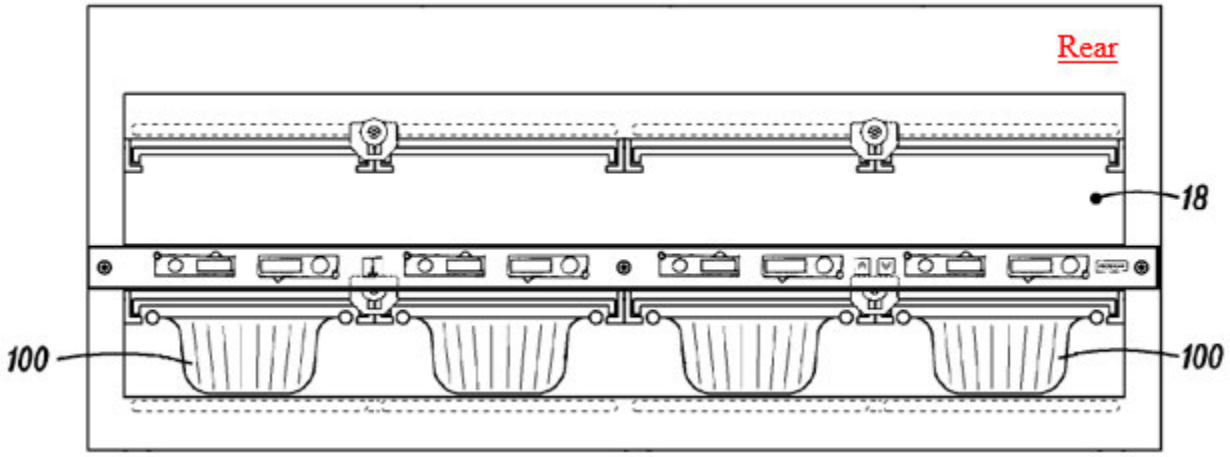



FIG. 6

EX1010: Figs. 1, 6.






EX1010: Figs. 2, 6 (modified[9]).

**1.a**

Fortmann'748's cabinet's chassis (10a) has top and bottom panels (11, 12), first and second side panels (13, 14), and front and rear faces. EX1010: ¶[0014]; EX1003: ¶¶734-736.

[9] Modified figures throughout Grounds 9-12 represent the modifications in Section XII(A).

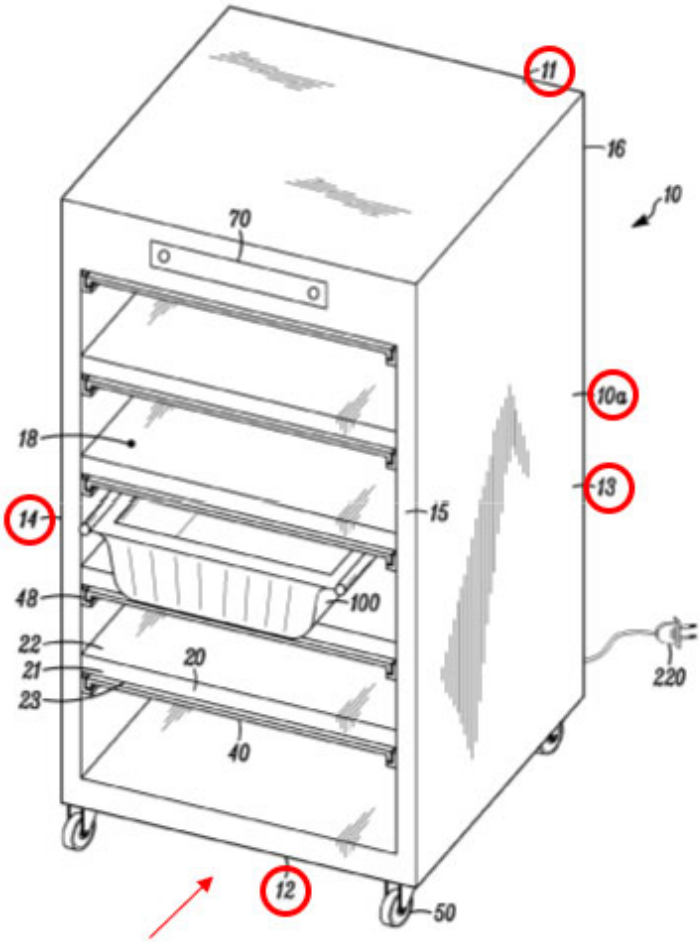



FIG. 1

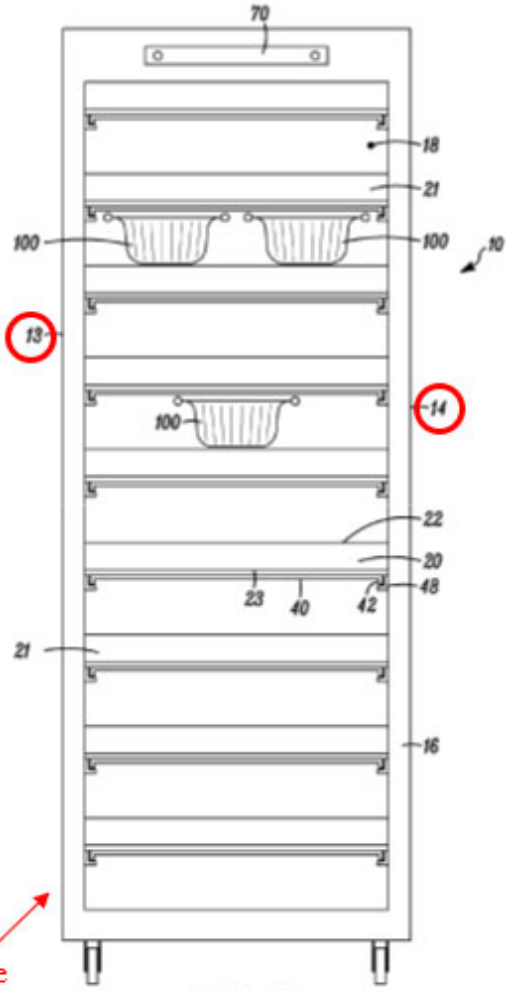
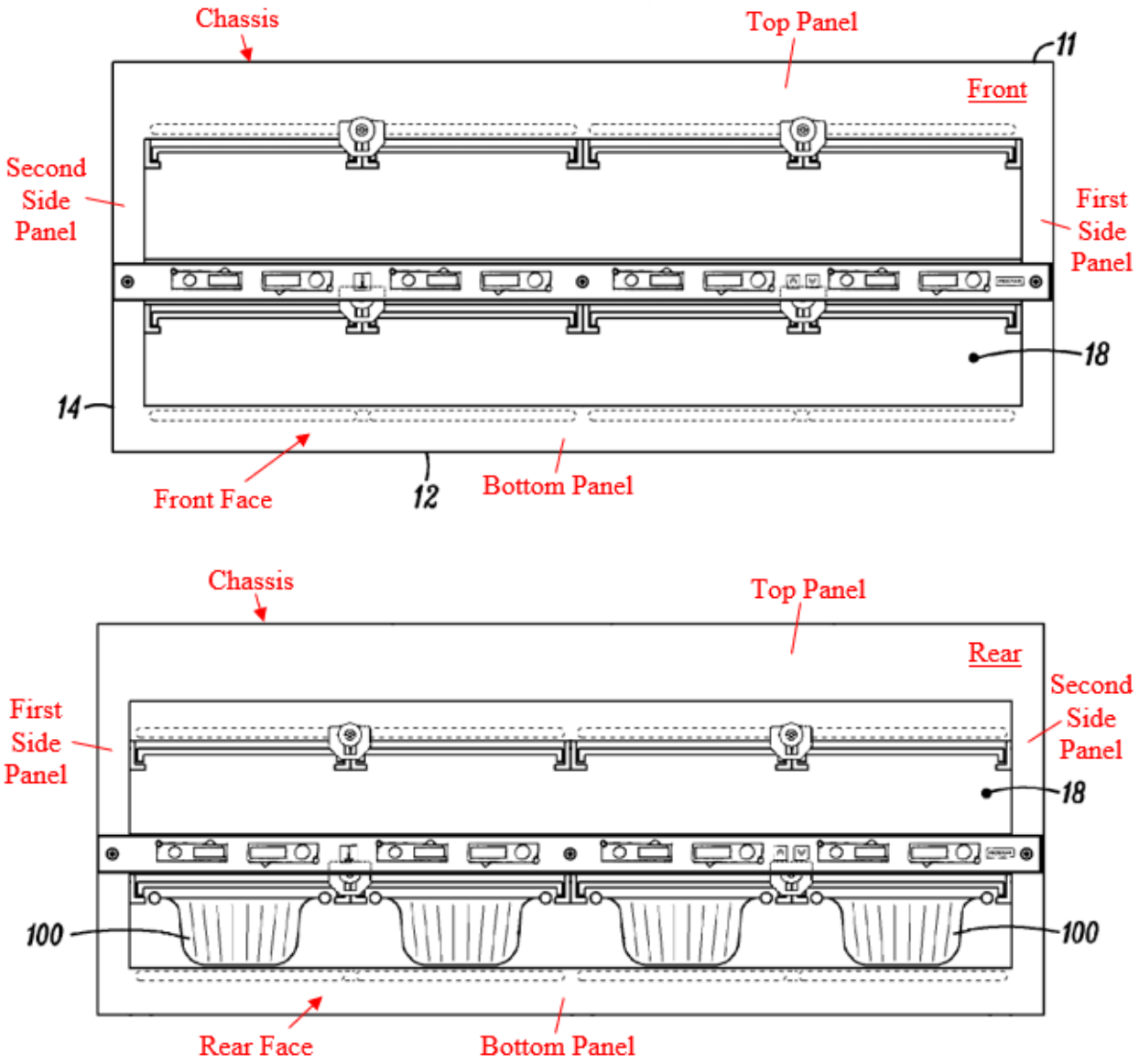



FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

**1.b.1**

Shelves (21) divide the cabinet interior into food holding compartments such that a first/upper food holding compartment is defined by the first and second side panels, top panel, and shelf. EX1010: ¶[0015]; Section XII(A)(1)); EX1003: ¶¶737-740.

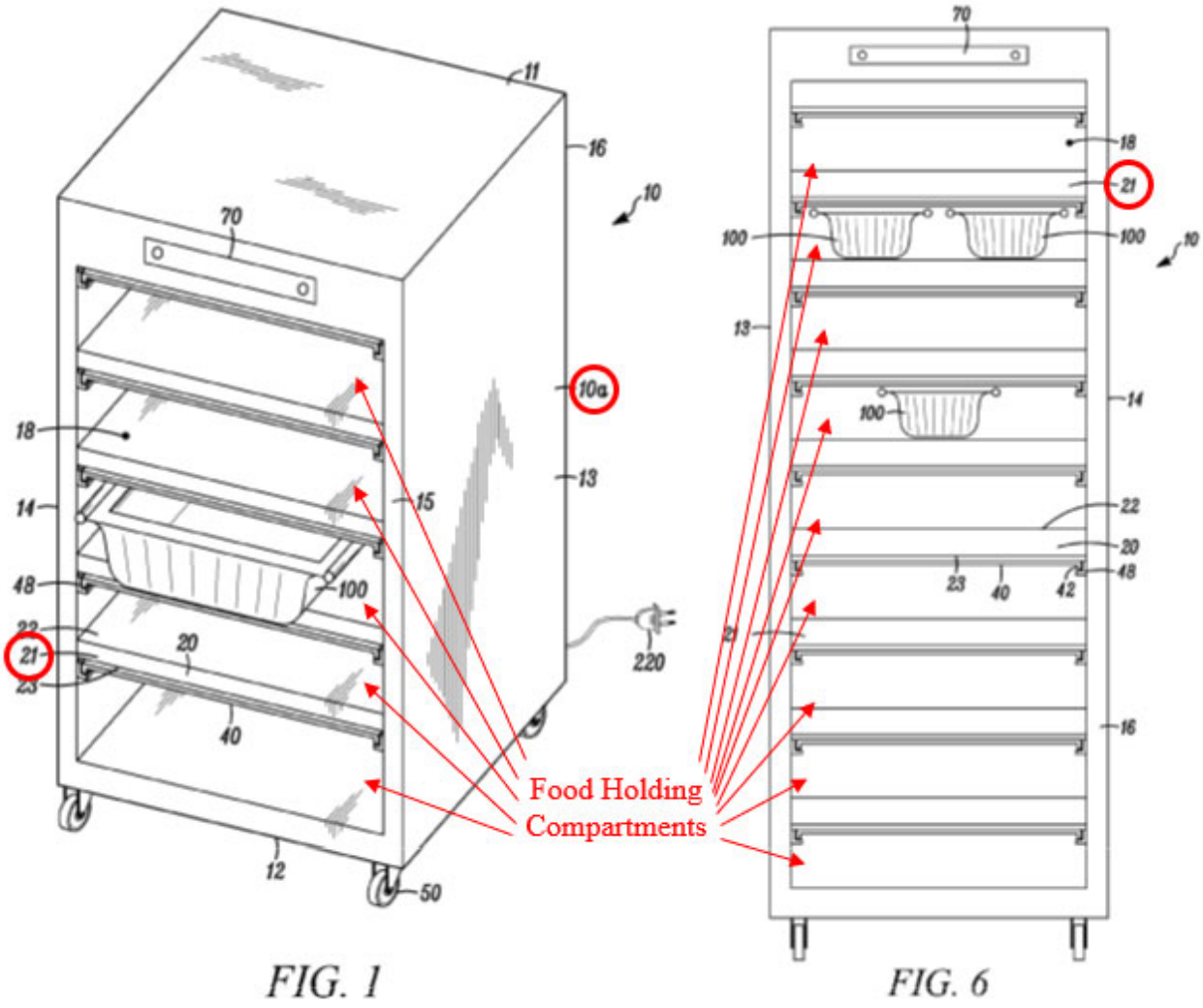
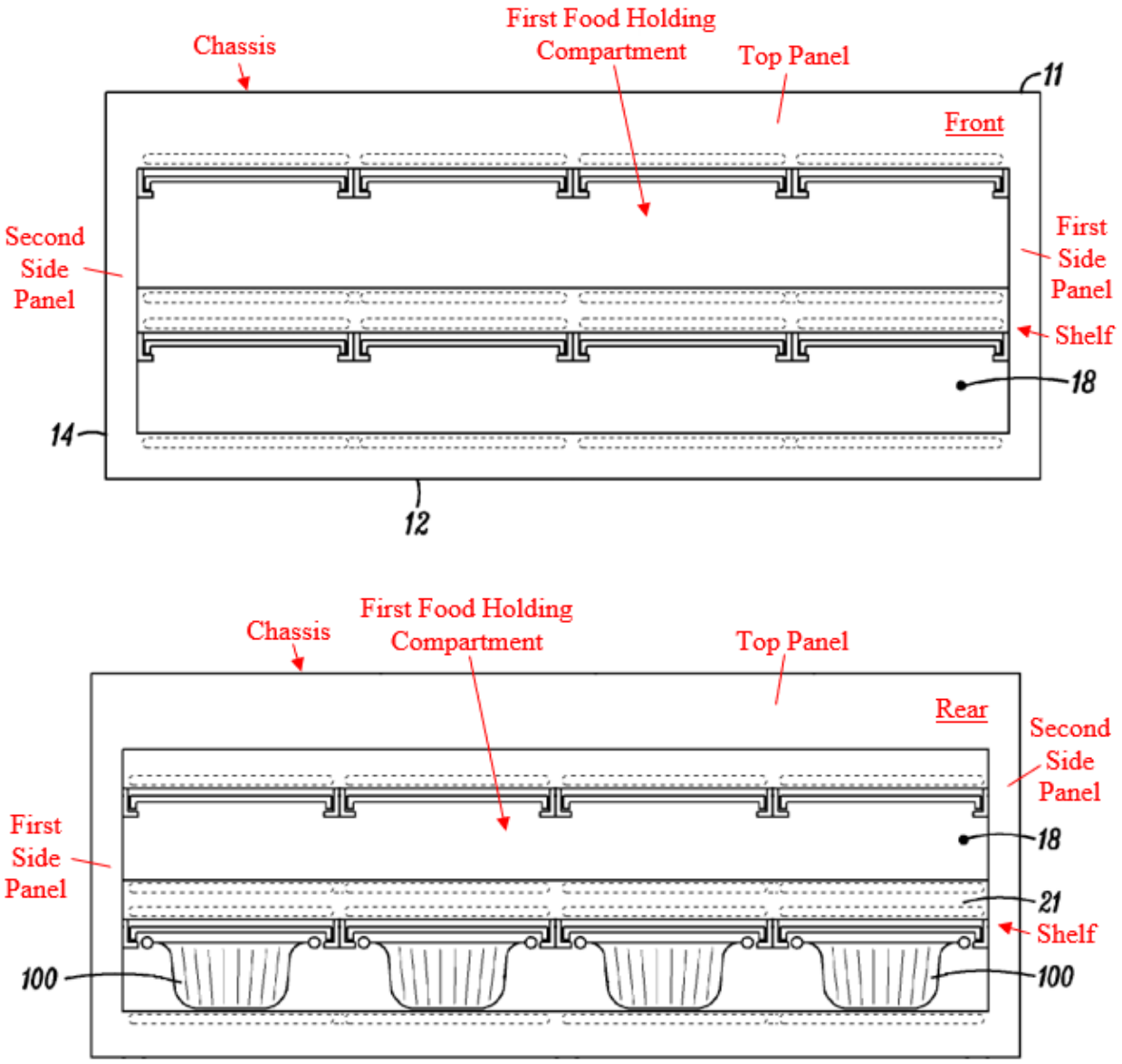



FIG. 1

FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

**1.b.2**

The first compartment has a first opening configured to allow pans with food to be placed into and removed from the compartment. EX1010: ¶¶[0014]-[0015], [0017], [0024]; EX1003: ¶¶741-742.

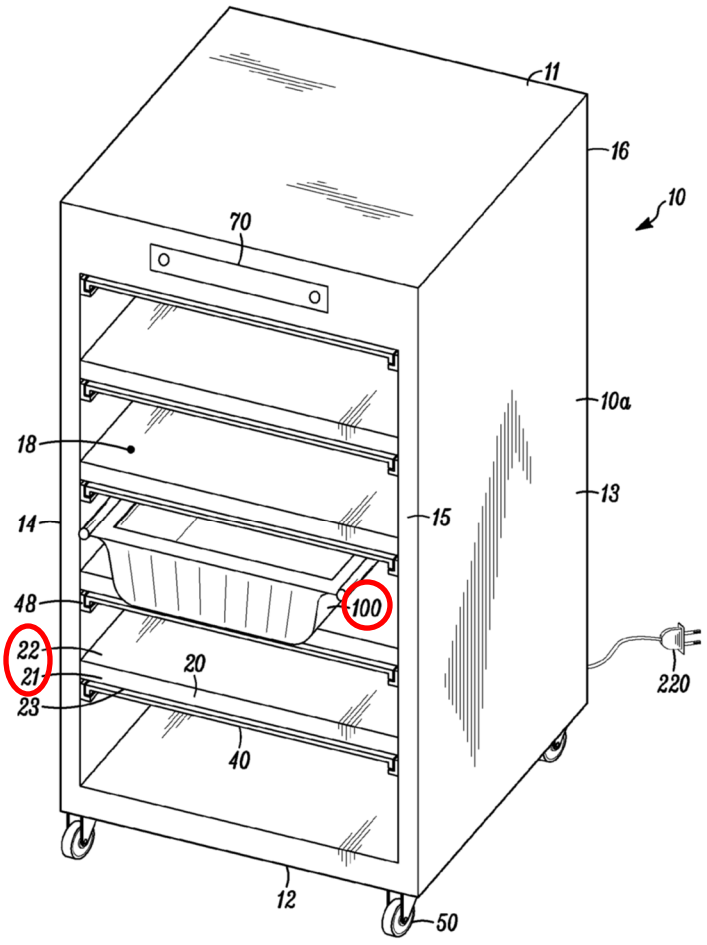
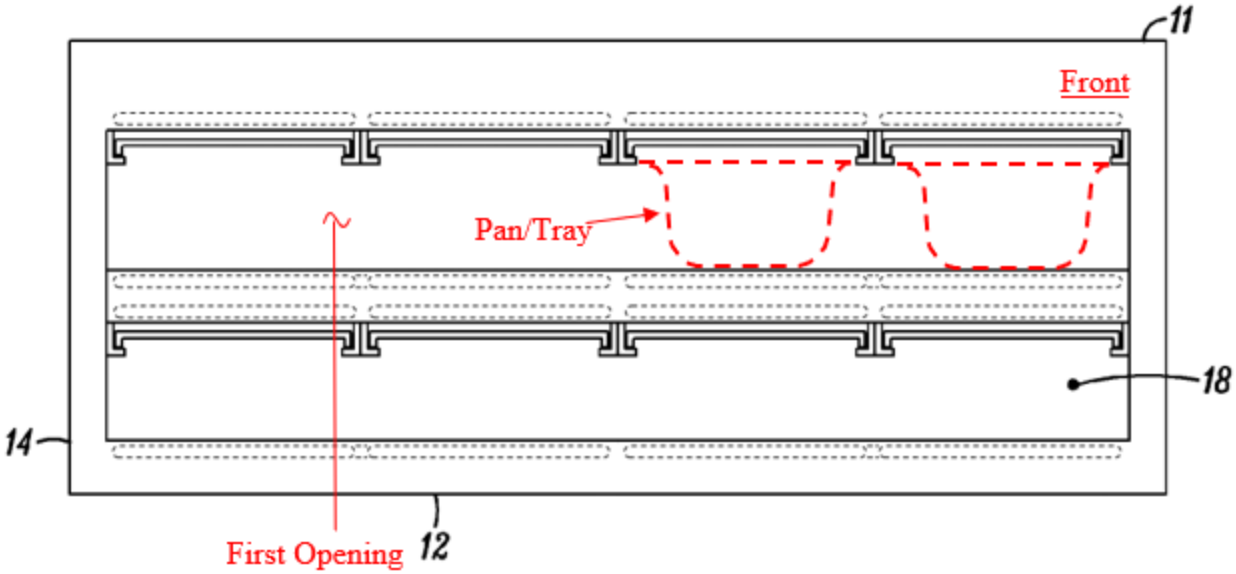



*FIG. 1*

EX1010: Fig. 1.




EX1010: Fig. 2 (modified).

**1.c.1**

A substantially planar surface forms the top surface of the shelf and the bottom surface of the first compartment. EX1010: ¶[0015]; EX1003: ¶¶743-744.

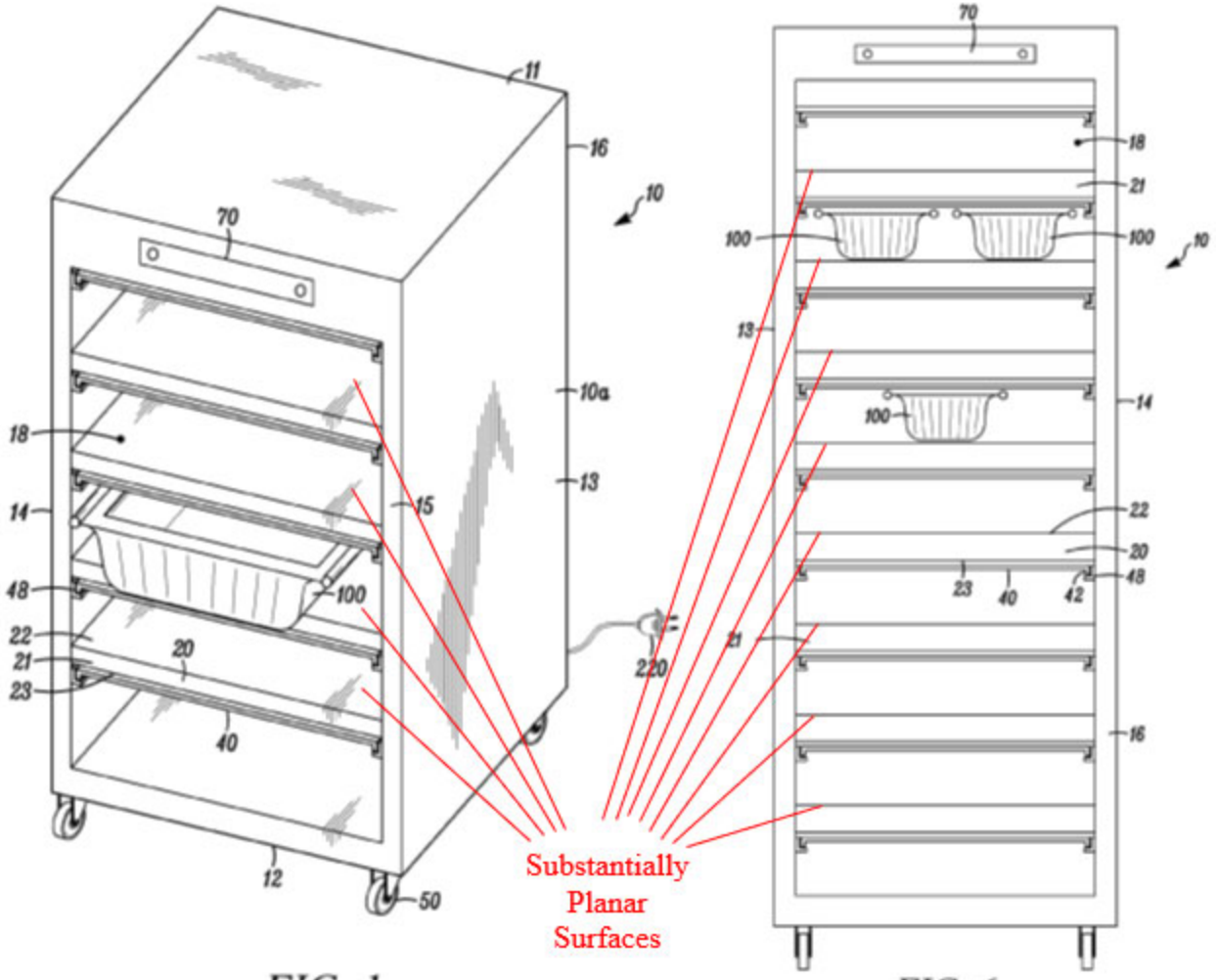
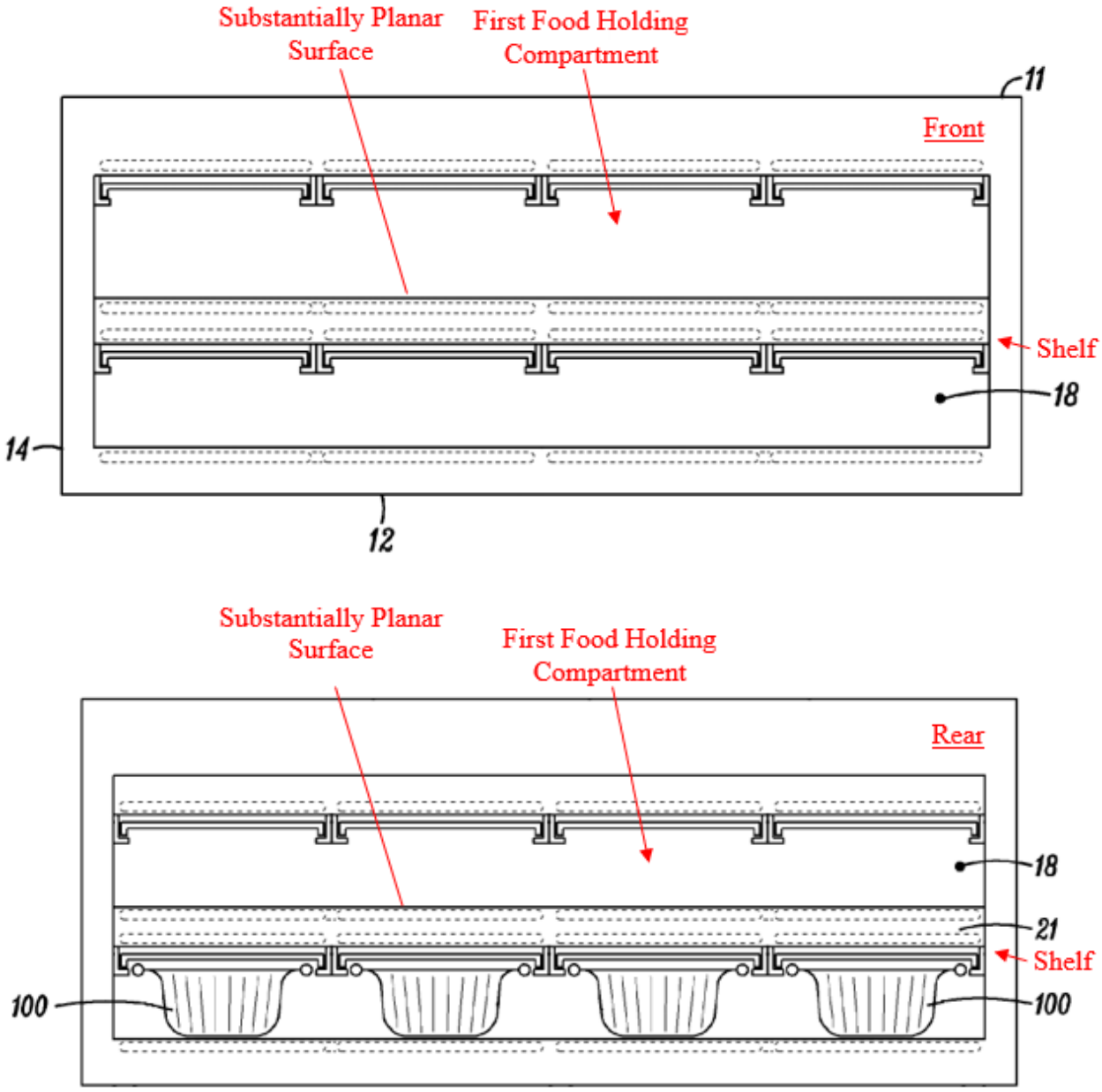



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

**1.c.2**

The planar surface extends completely to the first opening. EX1003: ¶¶745-746.

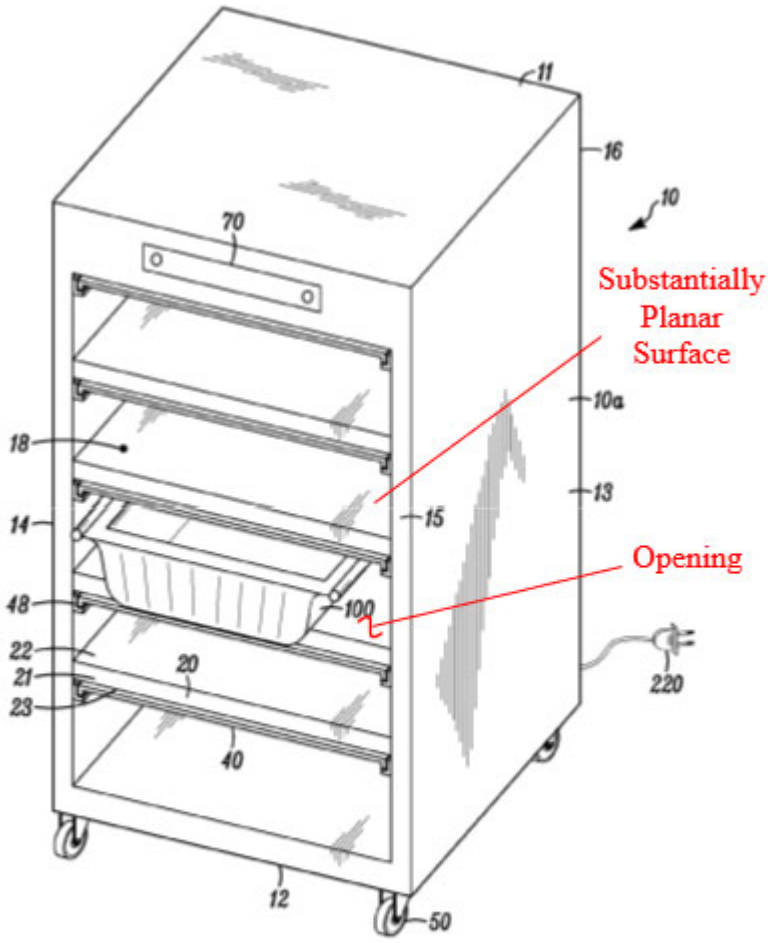
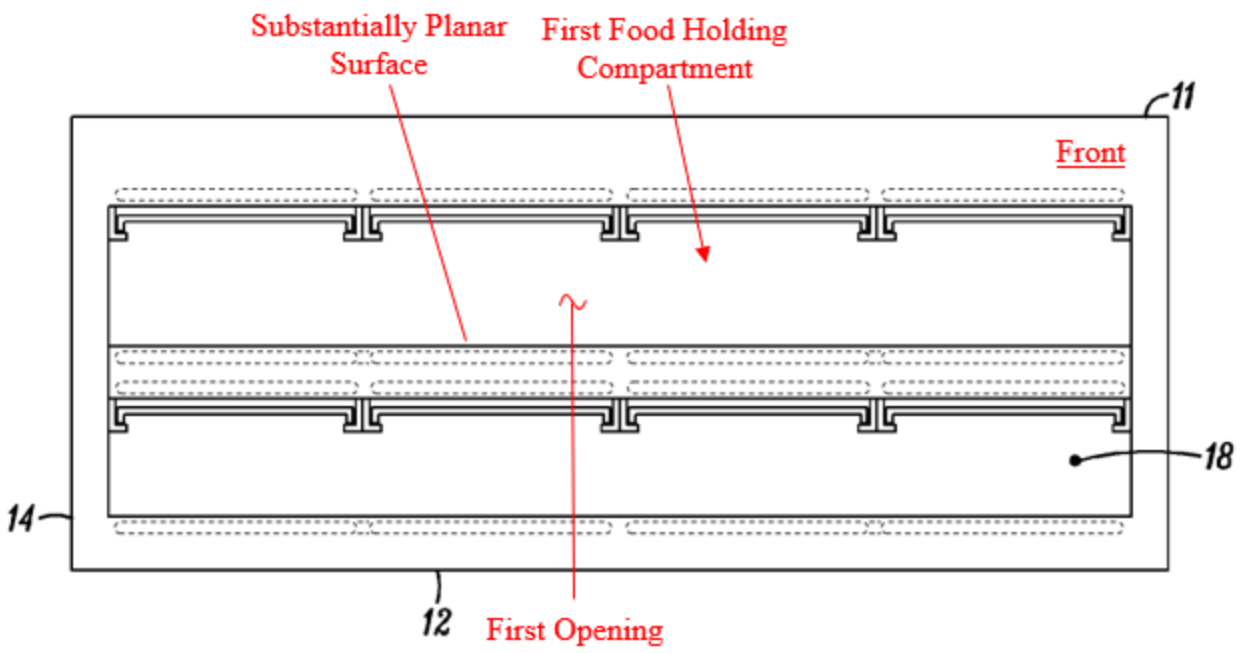



*FIG. 1*

EX1010: Fig. 1.




EX1010: Fig. 2 (modified).

**1.c.3**

The planar surfaces of Fortmann'748's shelves (21) are formed by (comprise) planar plates (22) of thermally conductive stainless steel. EX1010: ¶[0019]; EX1003: ¶¶747-750.

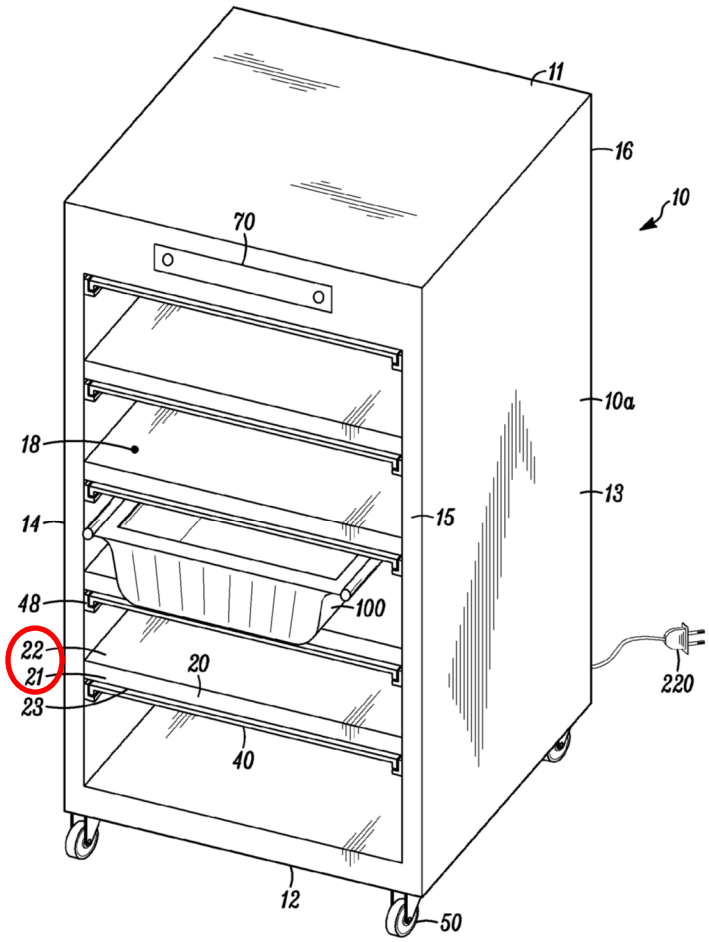



FIG. 1

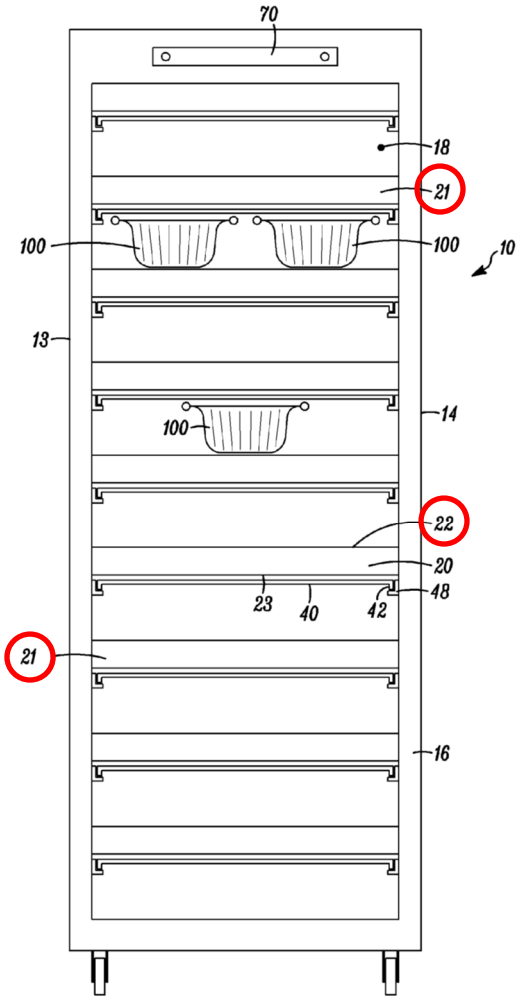
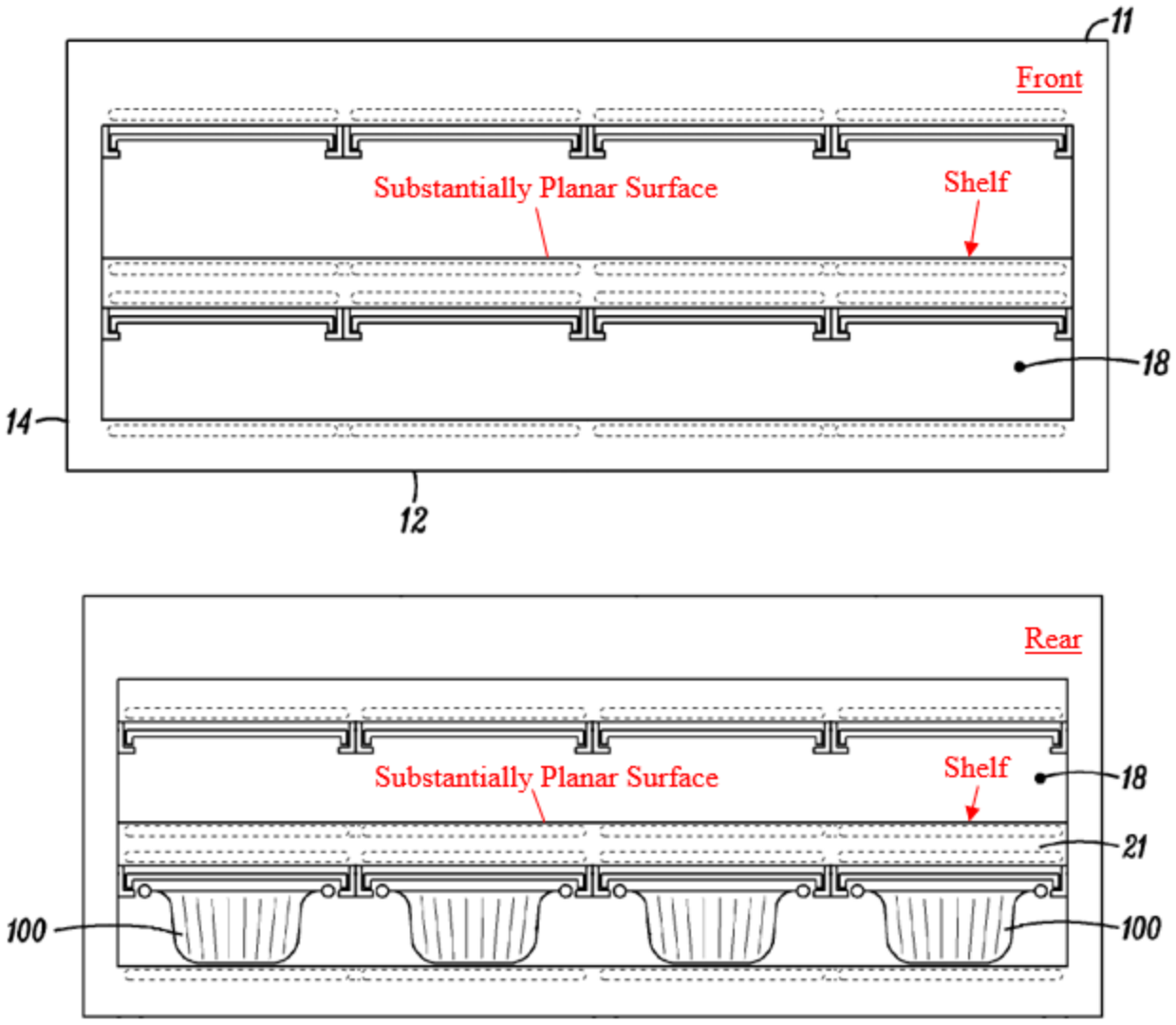



FIG. 6

EX1010: Figs. 1, 6.

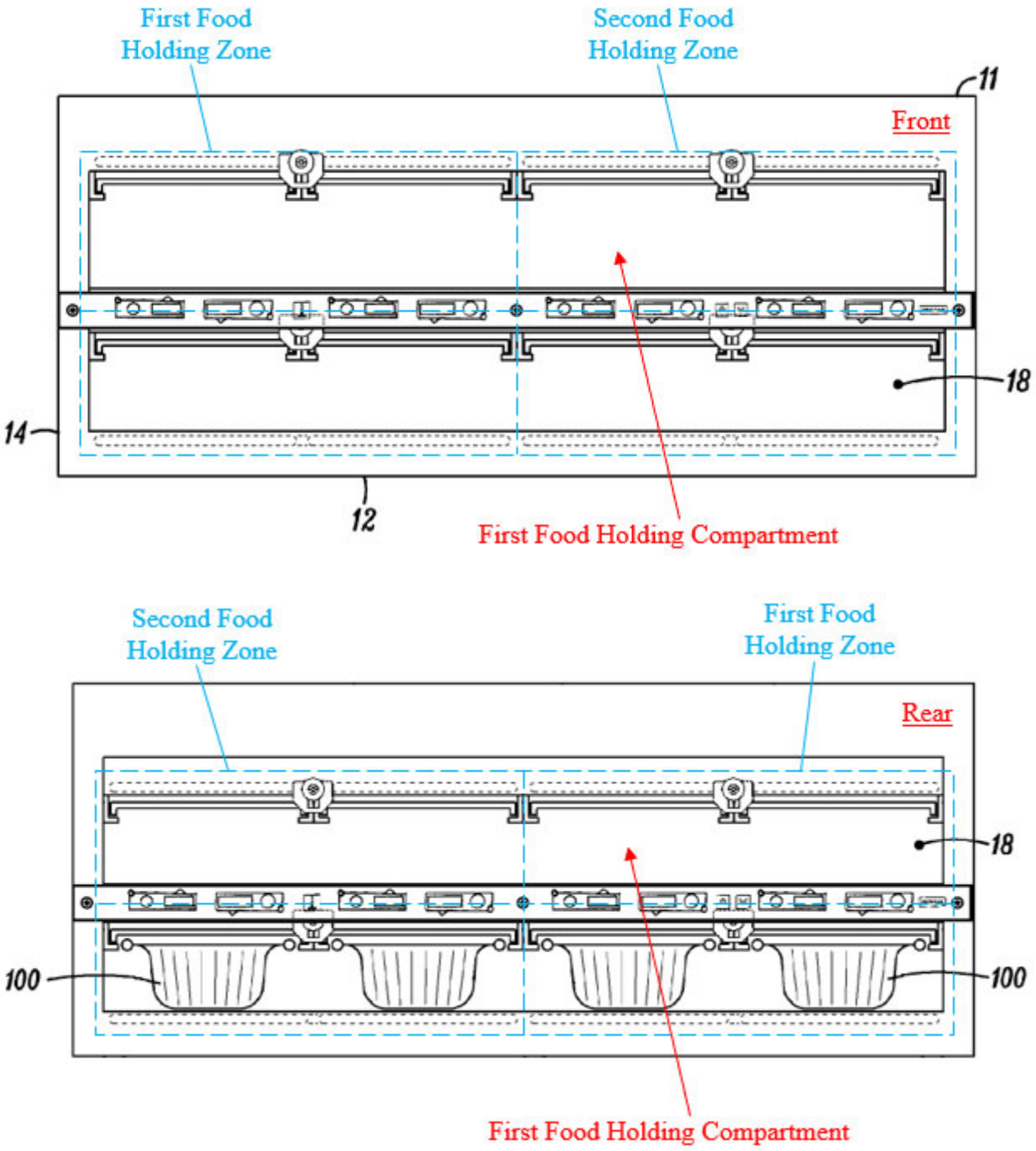



EX1010: Figs. 2, 6 (modified).

**1.d.1/1.e.1**

Jones, Fortmann'197, IRHS Documents, and McMillan each disclose multiple food holding zones per compartment such that it would have been obvious to modify Fortmann'748's cabinet to have first and second zones in the first compartment per Section XII(A)(2). EX1005: 20, 25; EX1007: 53; EX1012:

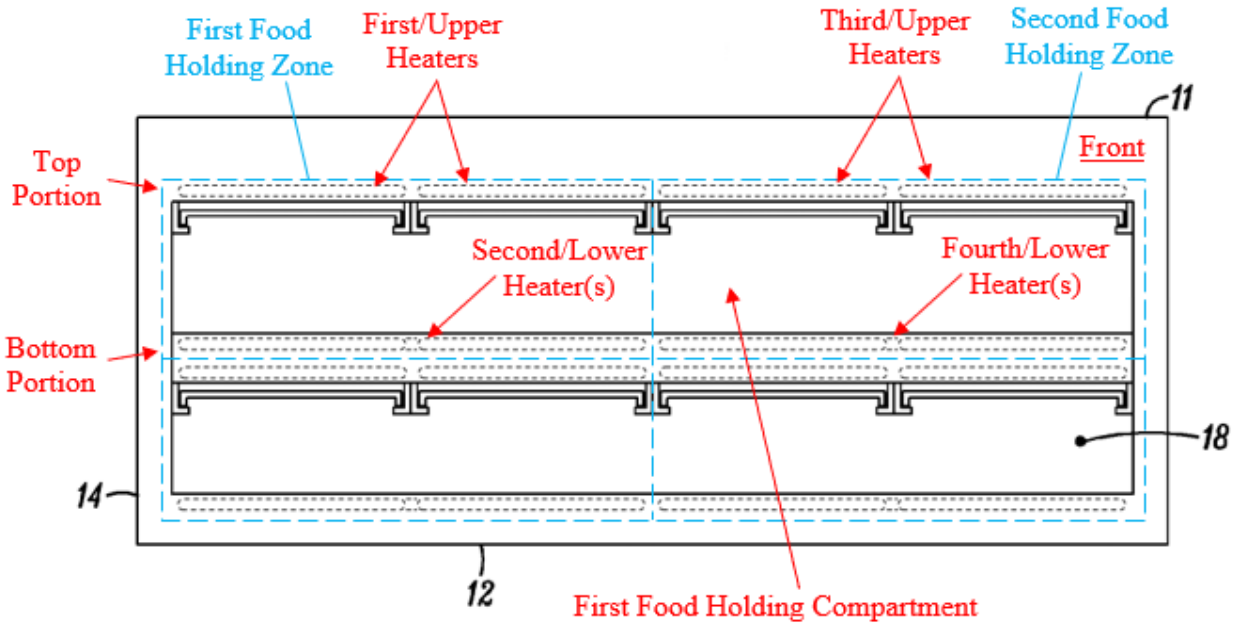
¶¶[0069], [0072], [0096]; EX1014: 3:6-27, 8:63-9:19, 9:50-65; EX1019: 4:36-52; EX1003: ¶¶751-752, 761-762.

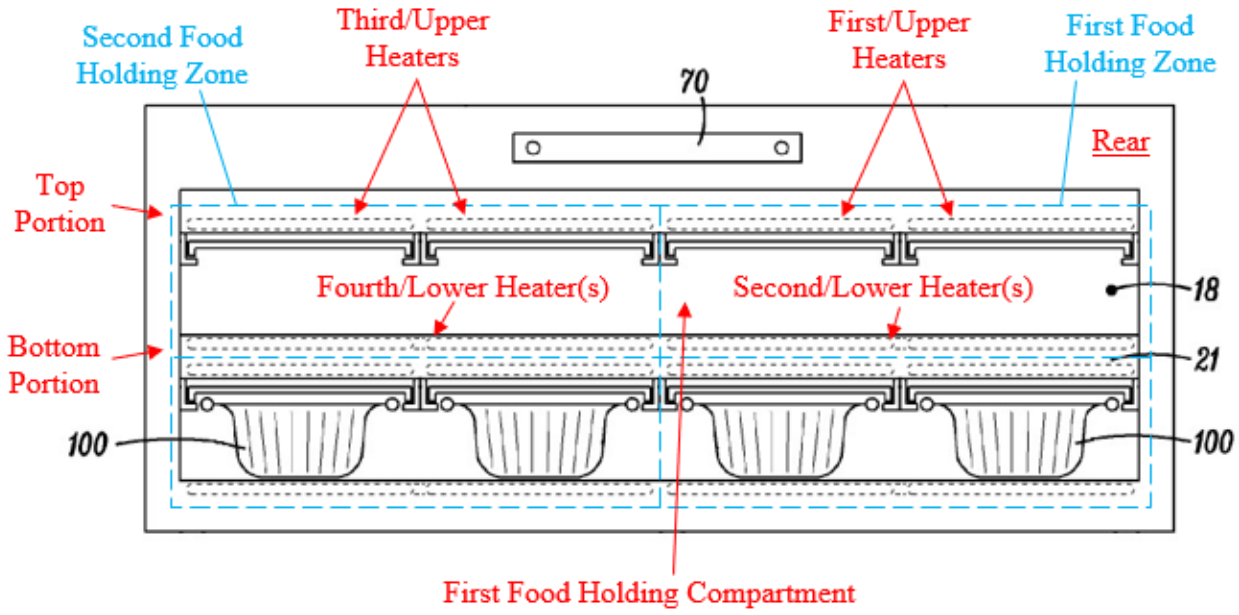



EX1010: Figs. 2, 6 (modified).

**1.d.2/1.e.2**

The heating elements of each zone of Jones, Fortmann'197, IRHS Documents, and McMillan are independently controllable from one another and other zones' heaters such that it would have been obvious to modify Fortmann'748 to have first and second zones having independently controllable first and third heaters and independently controllable second and fourth heaters at respective top and bottom portions of the first compartment per Sections XII(A)(2)-(3). EX1005: 16, 20, 25; EX1006: 1; EX1007: 53; EX1010: ¶¶[0021], [0027]; EX1012: ¶¶[0072], [0096], [0098], [0130]; EX1014: 3:6-27, 8:63-9:19, 9:50-65; EX1019: 4:36-59; EX1003: ¶¶753-754, 763-764.






EX1010: Figs. 2, 6 (modified).

When duplicating Fortmann'748's heaters, the POSA would maintain independent heater control per Jones, Fortmann'197, IRHS Documents, and/or McMillan via Fortmann'748's controller. Section XII(A)(2)-(3); EX1003: ¶¶755-757, 765-767.

**1.d.3/1.e.3**

Based on the heater arrangements of Fortmann'748, Jones, Fortmann'197, IRHS Documents, and McMillan (disclosing or suggesting multiple bays per zone), it would have been obvious (per Sections XII(A)(1)-(2)) for the first and second zones to each include two food holding bays (four total), each receiving a pan/tray. EX1005: 8, 25; EX1006: 1; EX1007: 56; EX1010: ¶¶[0014]-[0015]; EX1012: ¶[0072]; EX1014: 3:6-27, 8:63-9:19; EX1019: 4:36-52; EX1003: ¶¶758-760, 768-770.

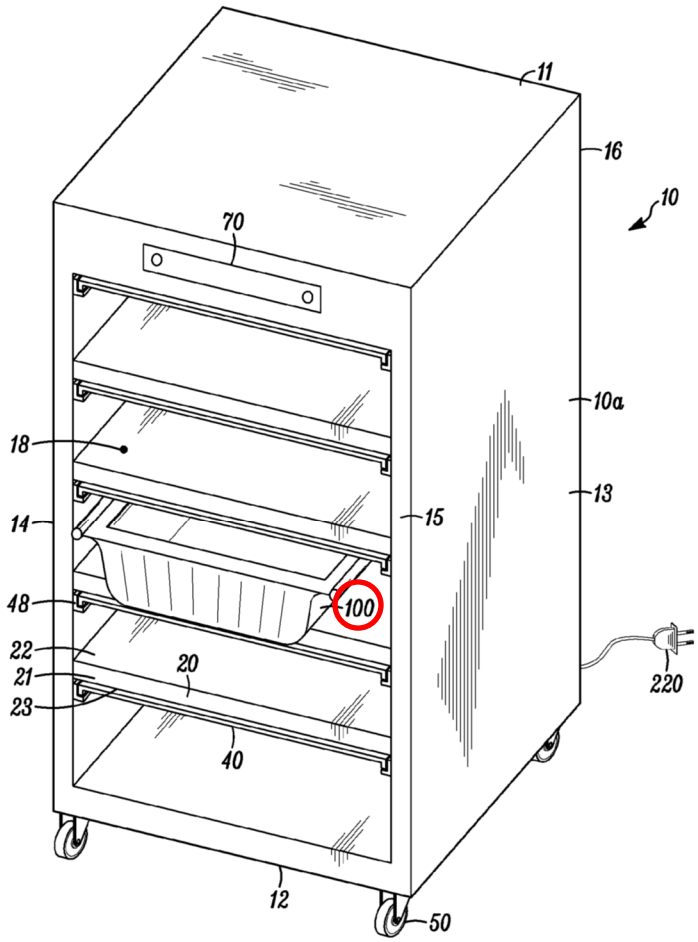



FIG. 1

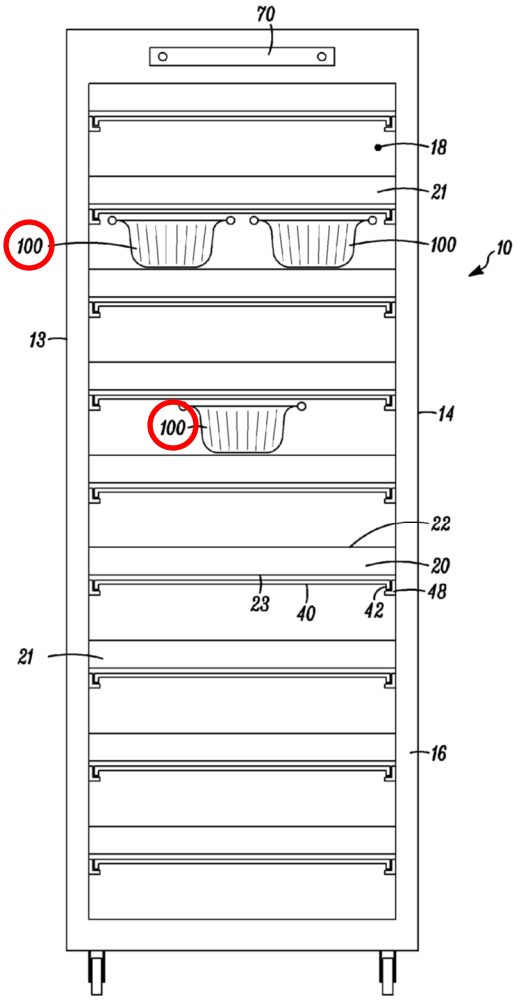
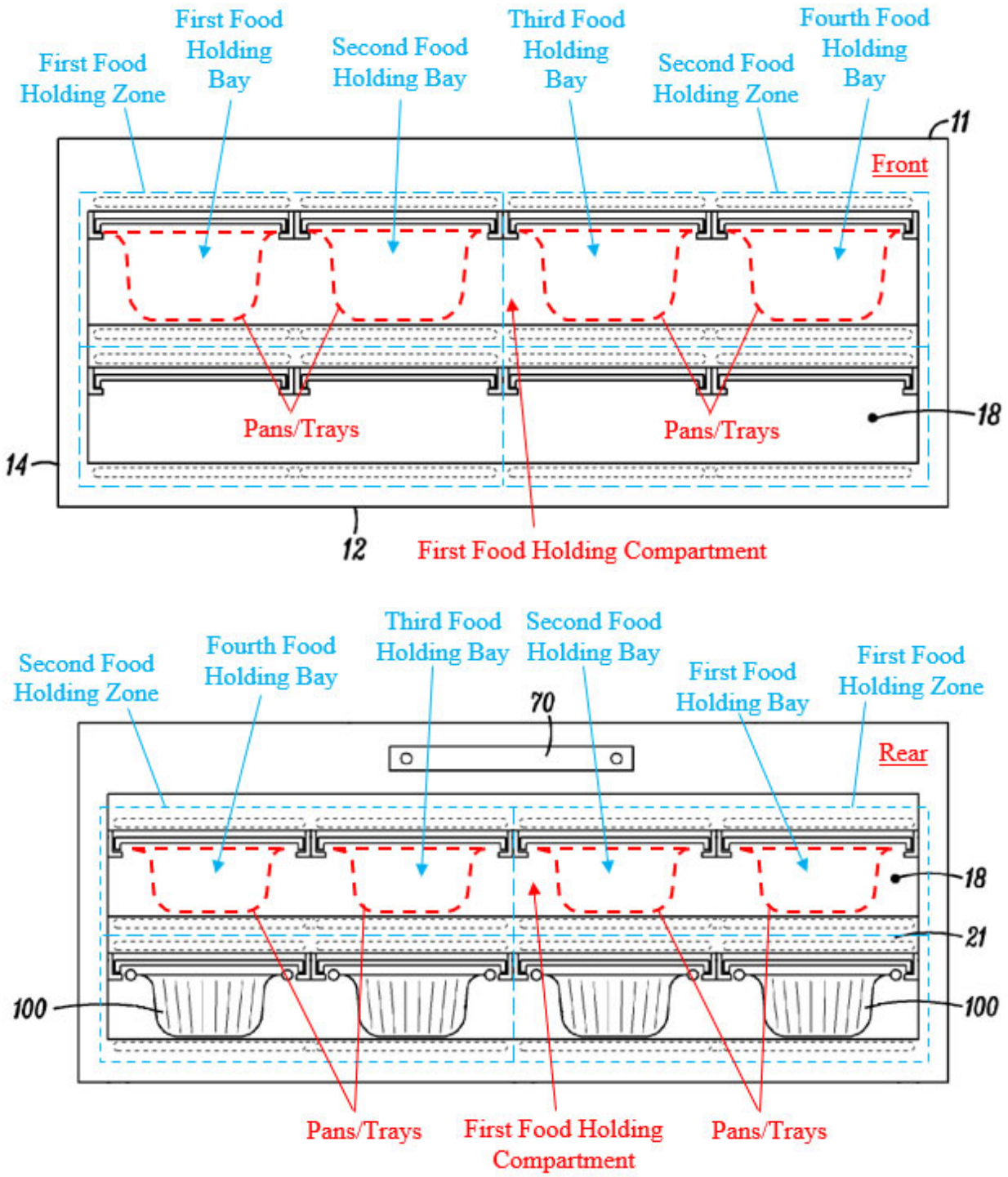



FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

**1.f.1**

Per Sections XII(A)(2) and XII(B)(1.d.1/1.e.1), the first and second zones are adjacent across the planar surface. EX1003: ¶771.

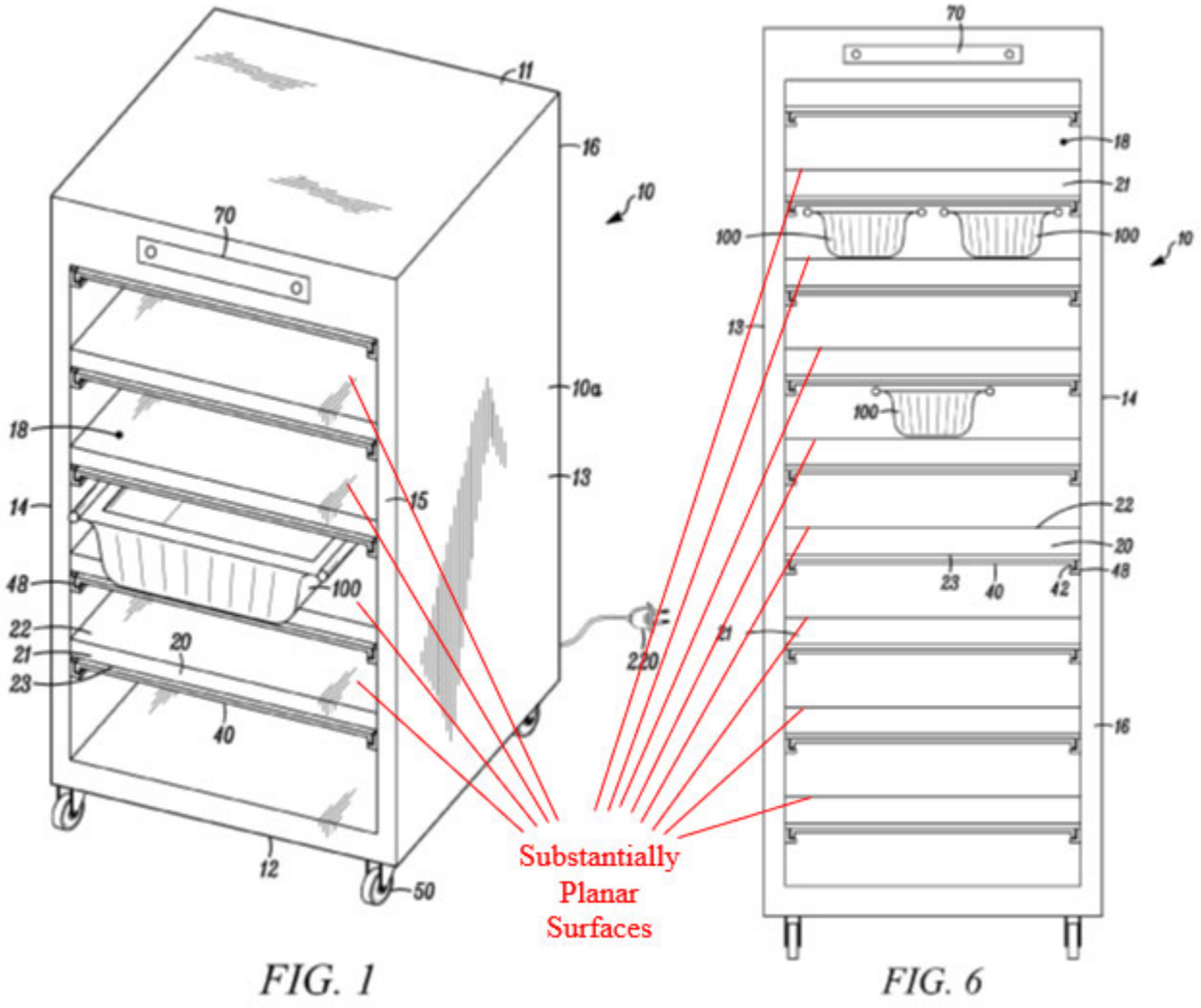
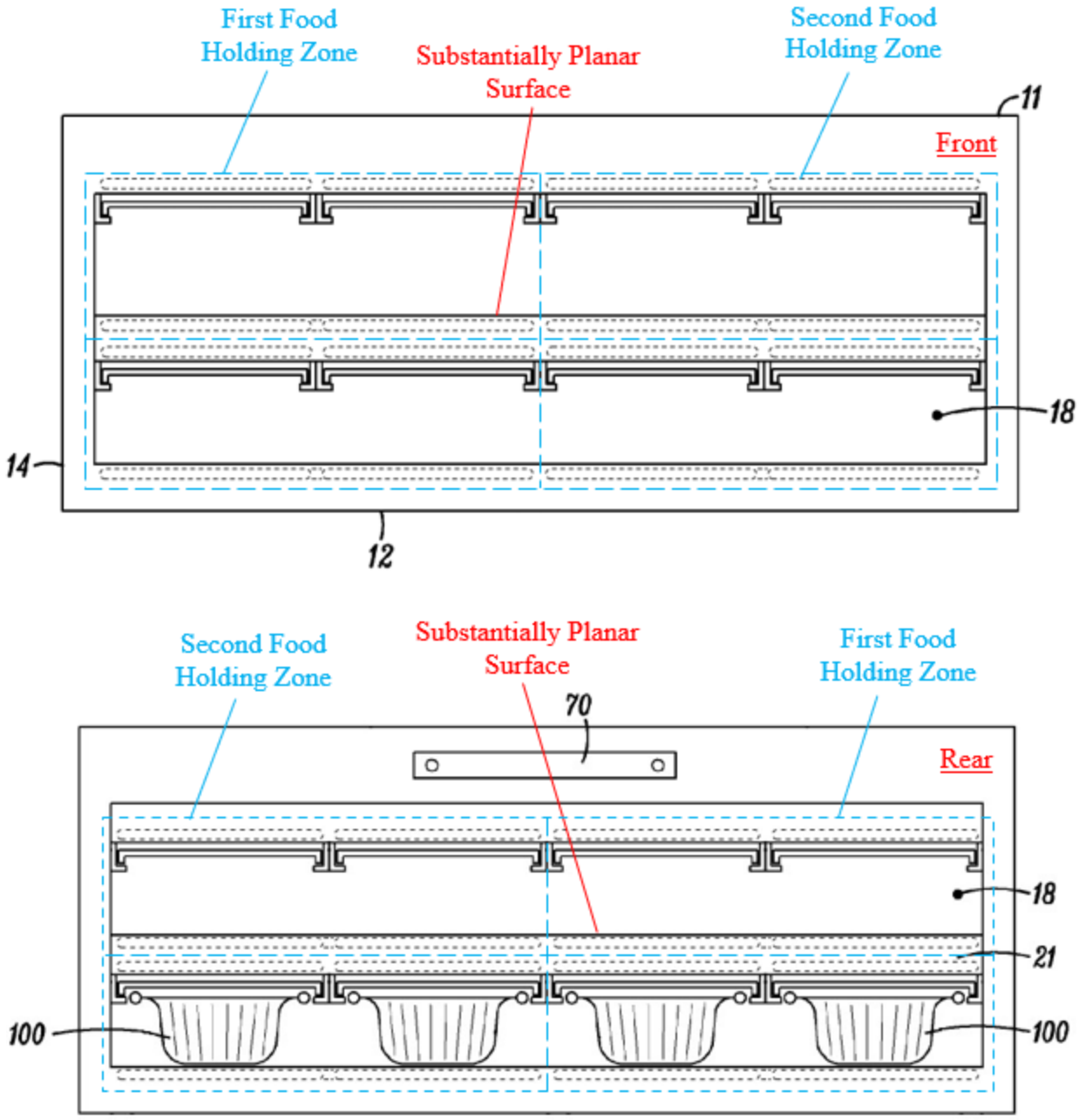



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

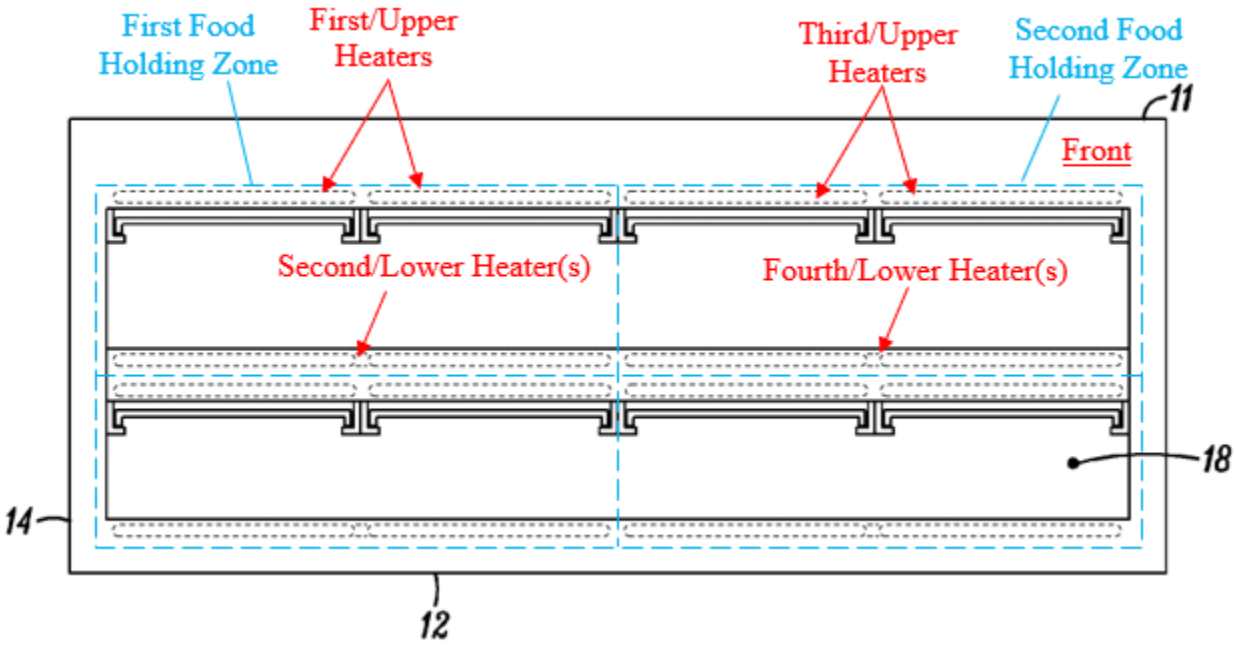
**1.f.2/13**

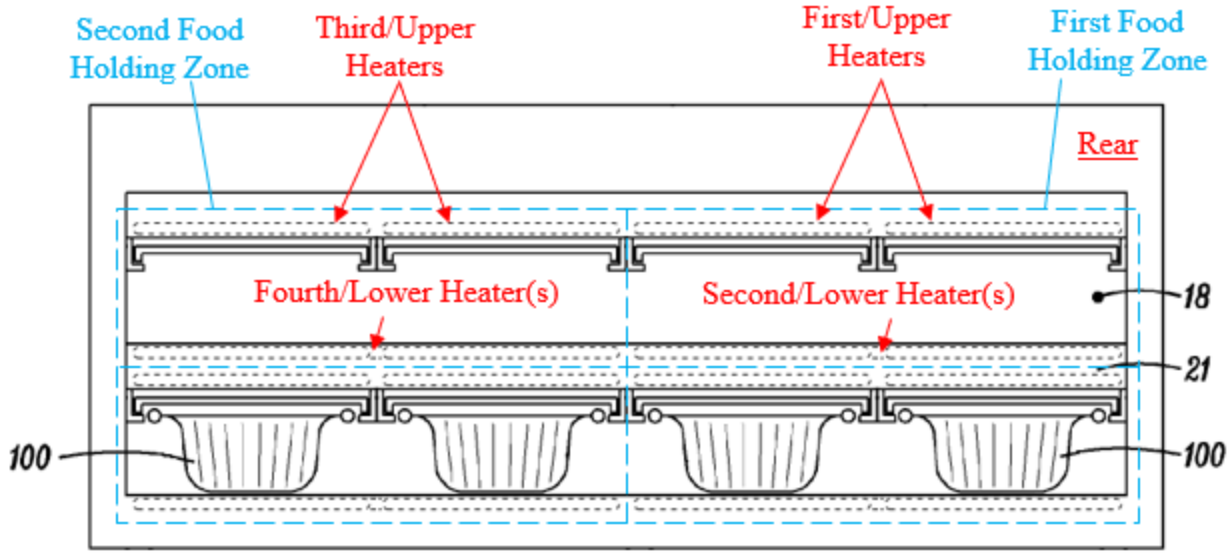
Fortmann'748 teaches heating zones to different temperatures. EX1010: ¶¶[0024], [0027]; EX1003: ¶772. Per the modifications of Sections XII(B)(1.d.1/1.e.1)-(1.d.2/1.e.2), the first and second heated zones would be

capable of having different temperatures. EX1005: 16, 20, 25; EX1006: 1; EX1007: 53; EX1010: ¶¶[0021], [0024], [0027]; EX1012: ¶¶[0098], [0130]; EX1014: 3:6-27, 8:63-9:19, 9:50-65; EX1019: 4:36-52; EX1003: ¶¶773, 860-861.

Fortmann'748's controller operates "heaters 60 disposed within each zone to control the temperature of the zone." EX1010: ¶[0027]; EX1003: ¶774. Per Sections XII(A)(2)-(5), it would have been obvious for Fortmann'748's controller to operate each zone's heaters to control/maintain its independent temperature. EX1003: ¶775.

Fortmann'748's modified controller would independently operate each heater of the respective zones to independently heat the zones to different temperatures based on different heat settings for different food types in the zones. Sections XII(A)(2)-(5); EX1003: ¶¶776, 862-865.






EX1010: Figs. 2, 6 (modified).

Moreover, it would have been obvious for the temperatures of the zones to be different. EX1003: ¶77.

Jones and IRHS Documents teach customized temperature settings for each food type and different food types (thus different temperatures) in each zone. EX1012: ¶[0098], Fig. 19; EX1005: 4, 16, 25; EX1006: 1; EX1007: 28, 51, 53; EX1003: ¶¶778-779, 866-867.



EX1007: 12.

McMillan and Fortmann'748 also teach heating zones to different temperatures. EX1010: ¶[0024]; EX1019: 4:45-52; EX1003: ¶¶780-781, 868-869.

In view of Jones, Fortmann'748, IRHS Documents, and/or McMillan, it would have been obvious to heat zones to different temperatures to accommodate customized heat settings for different food types in each zone and to increase holding capacity for different food types to meet customer demands. EX1028: 30, 14, 39; EX1019: 1:17-45; EX1010: ¶[0024]; EX1006: 1; EX1003: ¶782.

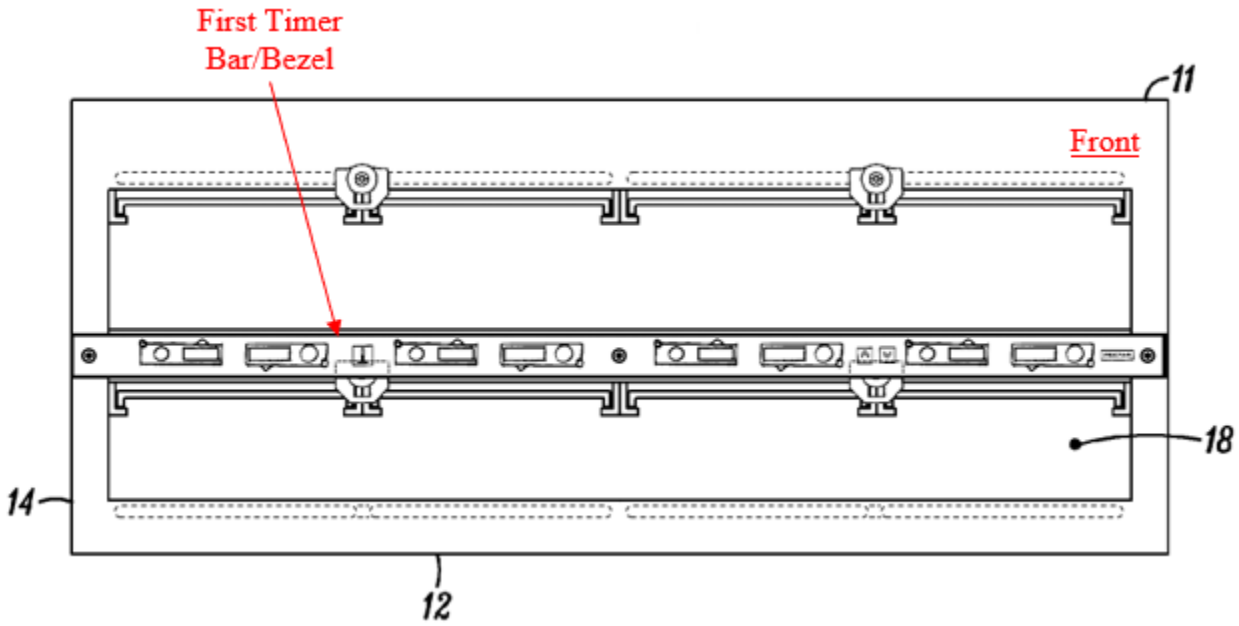
This would have been using a known technique (heating compartment zones to different temperatures per Jones, Fortmann'748, IRHS Documents, and McMillan) to improve a similar device (Fortmann'748's cabinet) in the same way (independently heating compartment zones to different temperatures) with reasonable expectation of success (independently controllable heaters). Sections XII(A)(2)-(3); EX1003: ¶¶783-784.

This renders obvious the zones being capable of maintaining different temperatures, and actually doing so. EX1003: ¶¶784, 870.

**1.g**

Fortmann'197, IRHS Documents, and Hartfelder disclose front timer bars/bezels spaced forward from the shelf such that it would have been obvious to include them in Fortmann'748's cabinet per Section XII(A)(6). EX1005: 8;

EX1006: 1-2; EX1007: 28, 32, 51; EX1013: Figs. 3, 4, 9; EX1014: 3:28-46, 4:18-37, Figs. 1-3, 5; EX1003: ¶¶785-786. The added front timer bar/bezel would have been set forward from Fortmann'748's shelf by a space. Section XII(A)(6). EX1003: ¶¶787-789.




EX1010: Fig. 2 (modified).

### C. Independent Claim 21

21.P-21.f.2 are met as explained in Sections XII(B)(1.P)-(1.f.2/13). EX1003: ¶¶871-872.

**21.g.1**

Fortmann'748's shelves (21) divide the interior into compartments. EX1010: ¶¶[0014]-[0015]; EX1003: ¶¶873-875.

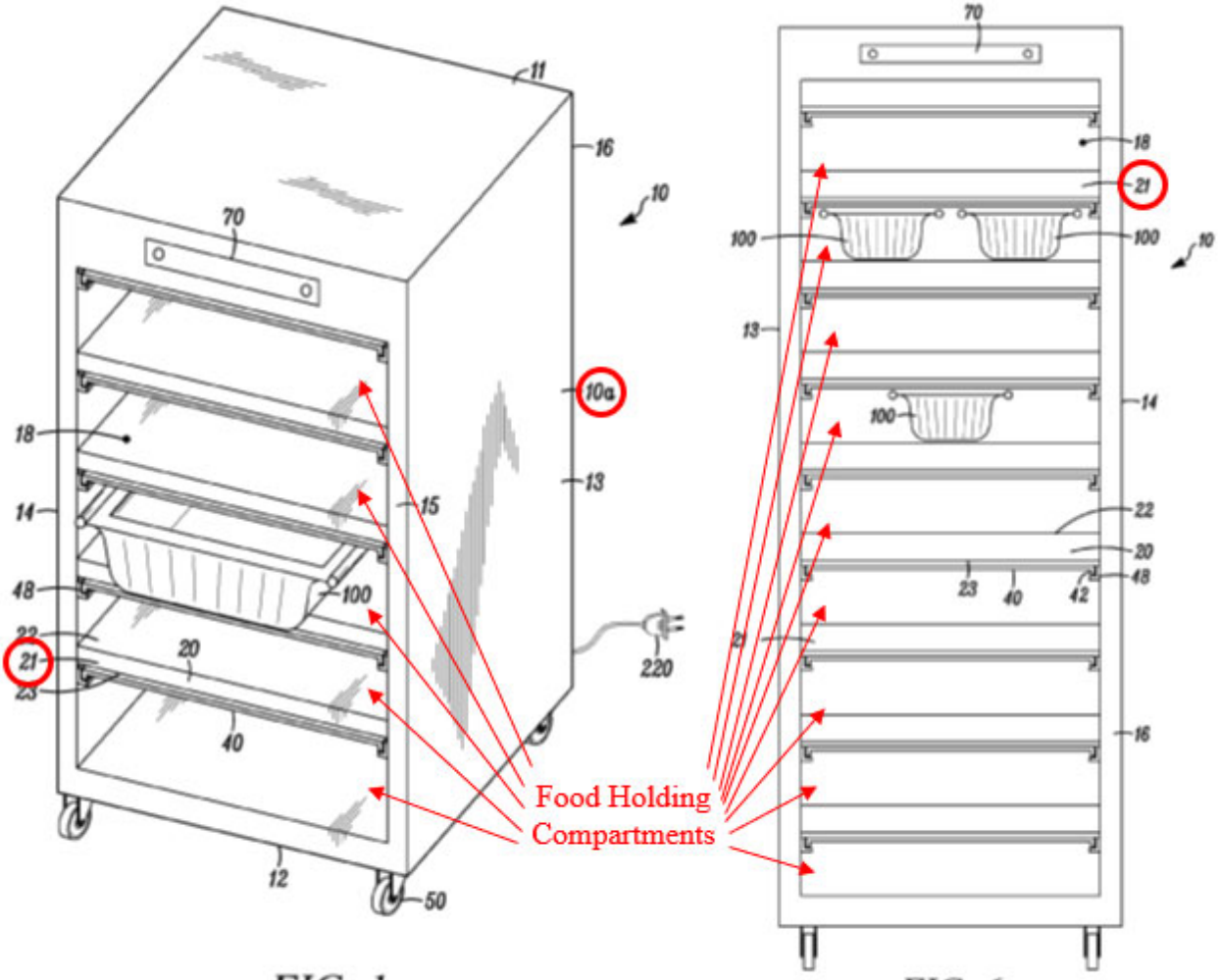
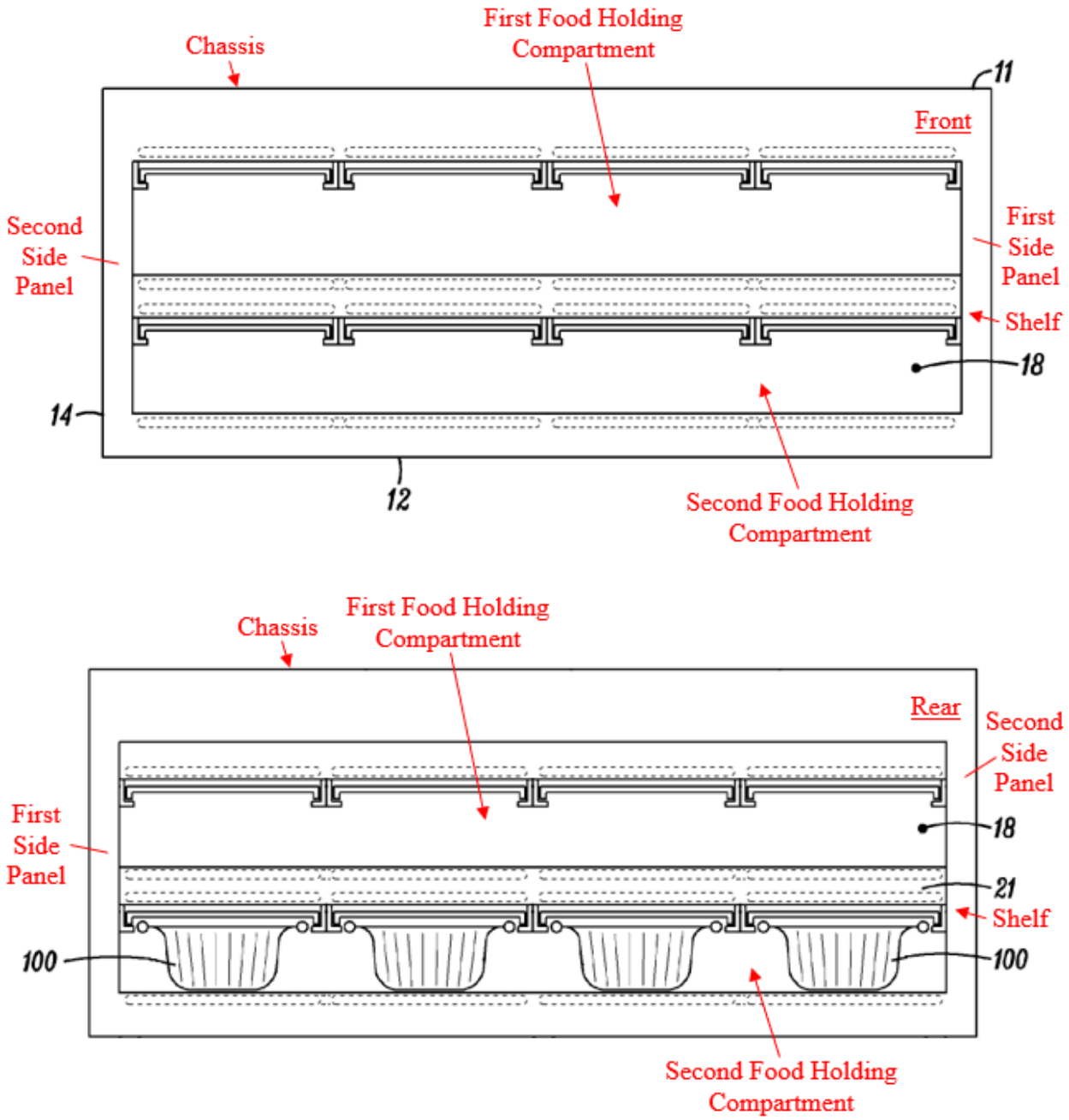



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.

Fortmann'748's cabinet has, below the first compartment, a second/lower compartment within the chassis defined by the first and second side panels and shelf. Section XII(A)(1); EX1003: ¶876.




EX1010: Figs. 2, 6 (modified).

**21.g.2**

The second compartment has a first opening configured to allow pans with food to be placed into and removed from the compartment. EX1010: ¶¶[0014], [0015], [0017], [0024]; EX1003: ¶¶877-879.

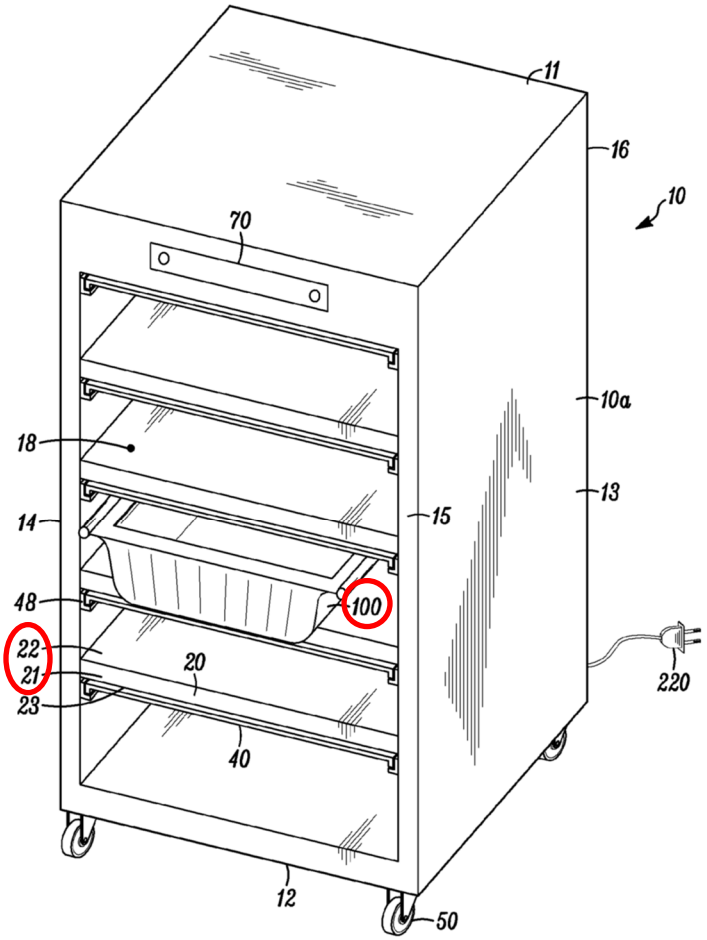
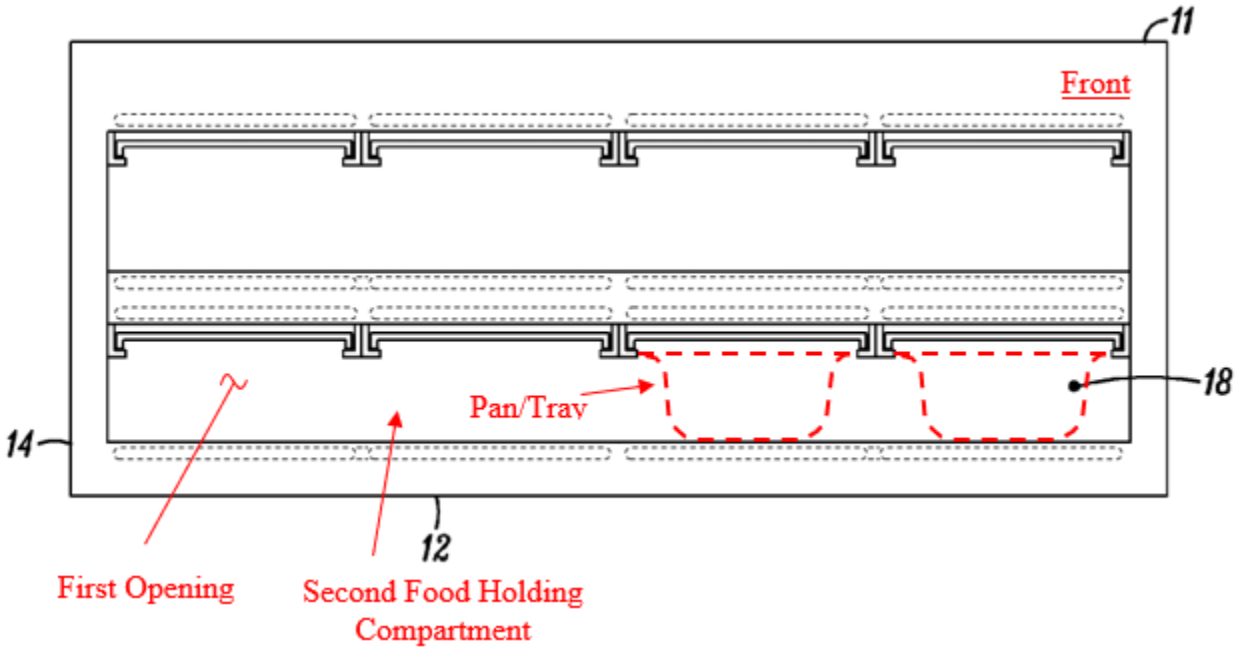



*FIG. 1*

EX1010: Fig. 1.



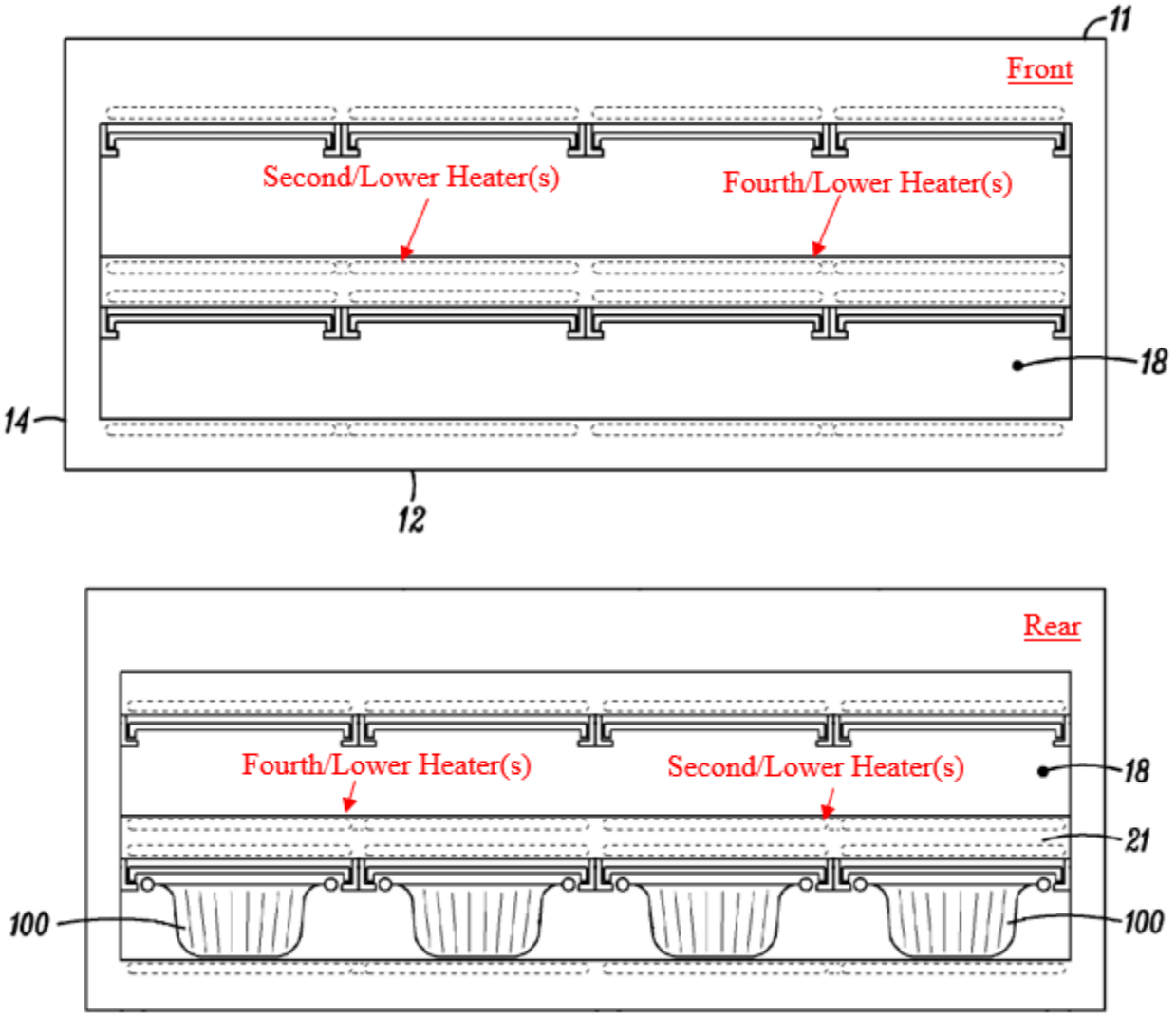

EX1010: Fig. 2 (modified).

**21.h**

Fortmann'748's "controller [] selectively provide[s] or secure[s] current to the one or more heaters 60 disposed within each zone to control the temperature of the zone." EX1010: ¶[0027]; EX1003: ¶880.

As modified per Sections XII(A)(2)-(3), it would have been obvious to operatively couple Fortmann's controller to each heater (second and fourth heaters). EX1010: ¶[0027]; EX1019: 6:15-19; EX1026: 2:17-20; EX1003: ¶881. Fortmann'748's controller would have independently operated each heater to independently control the temperature associated with each zone, as discussed in Sections XII(A)(2)-(5). EX1003: ¶882. Fortmann'748's controller would have been operatively coupled to and able to independently operate the lower heaters of

each zone (second and fourth heaters). Sections XII(A)(2)-(5), XII(B)(1.d.2/1.e.2), XII(B)(1.f.2/13); EX1003: ¶883.




EX1010: Figs. 2, 6 (modified).

**21.i.1**

Fortmann'748's shelf (21) is located between first and second compartments such that its top/first side (22) faces upward into the upper/first compartment and

its bottom/second side (23) faces downward into the lower/second compartment.

EX1010: ¶[0015]; EX1003: ¶¶884-887.

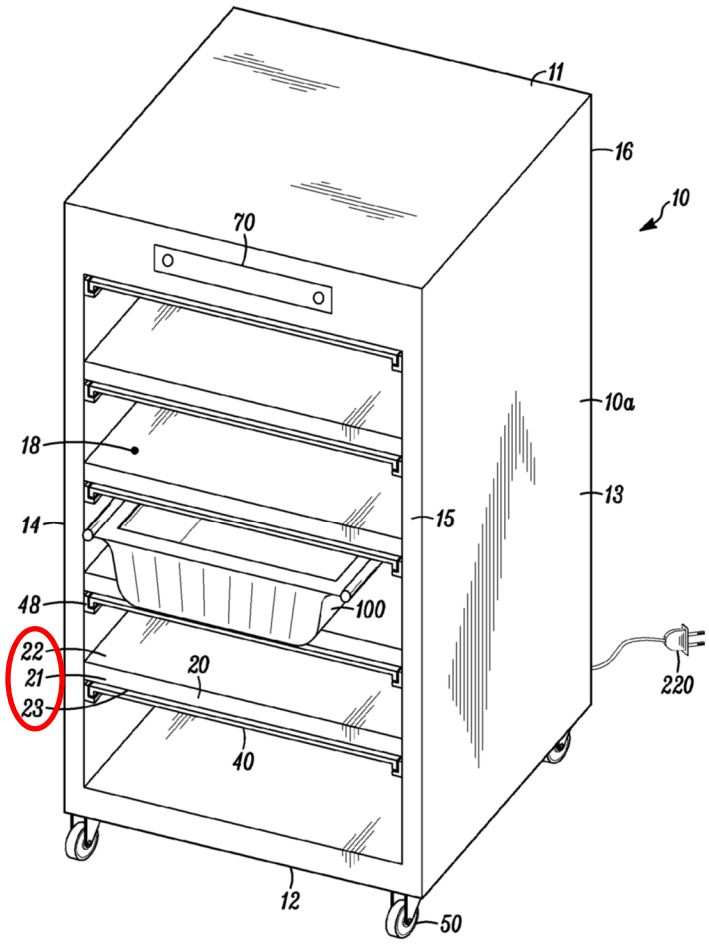



FIG. 1

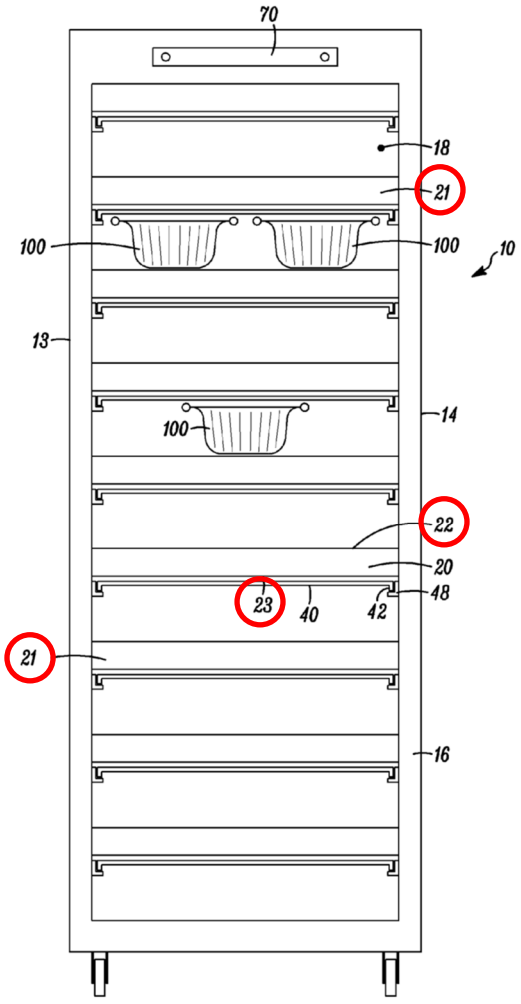
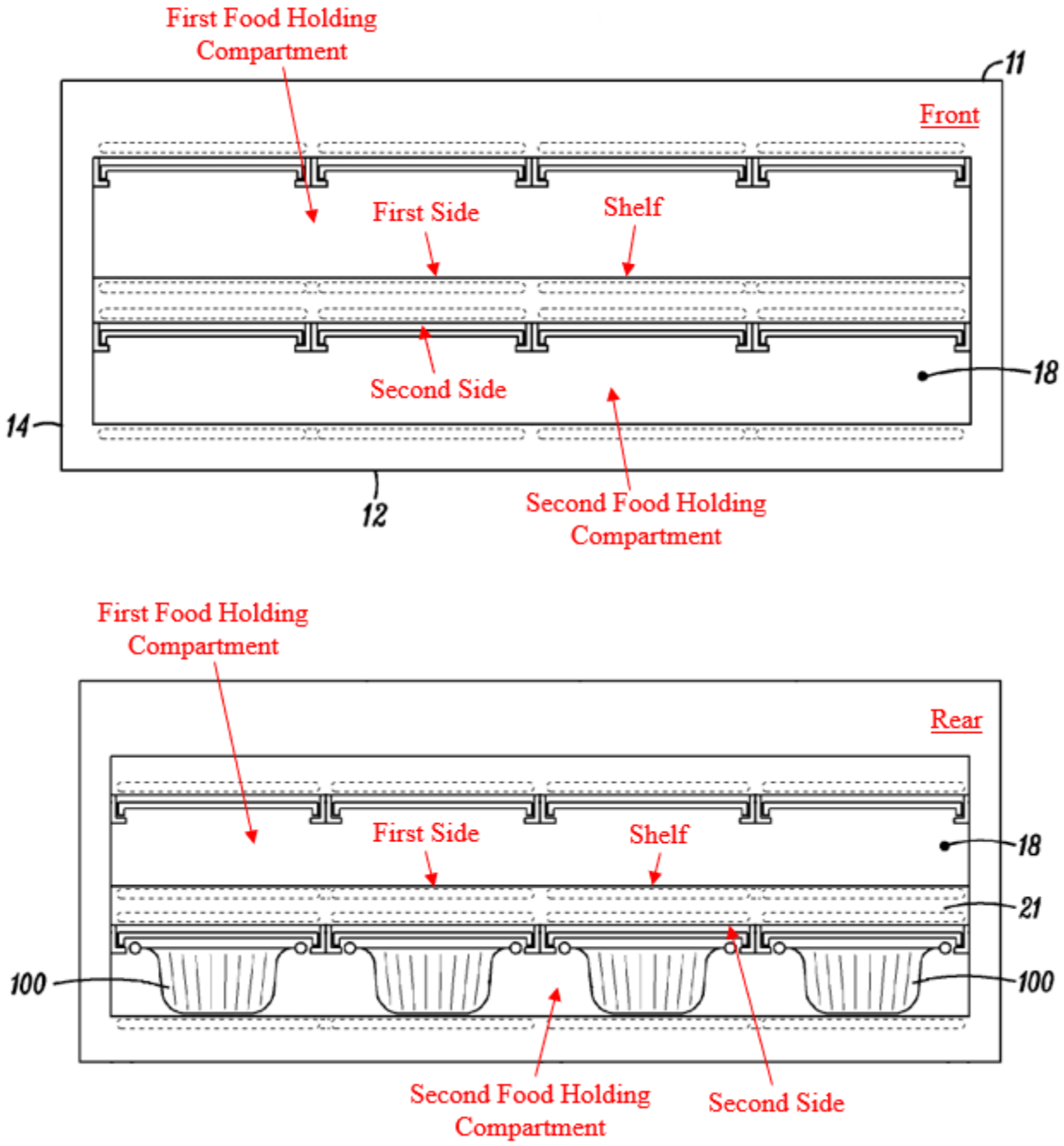



FIG. 6

EX1010: Figs. 1, 6.




EX1010: Figs. 2, 6 (modified).

**21.i.2**

Fortmann'748's shelf (21) includes two planar stainless steel plates (22, 23), with the upper plate (22) forming the first side of the shelf. EX1010: ¶¶[0019]-

[0020]; EX1003: ¶¶888-890. Fortmann'748's heaters (60) are between the two plates and contact the upper plate/first side for conduction heating. EX1010: ¶[0019]; EX1003: ¶¶891-892.

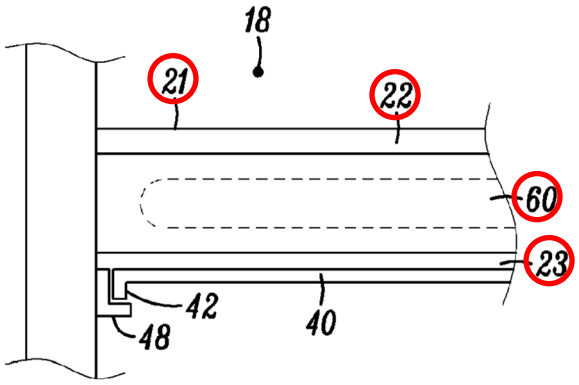
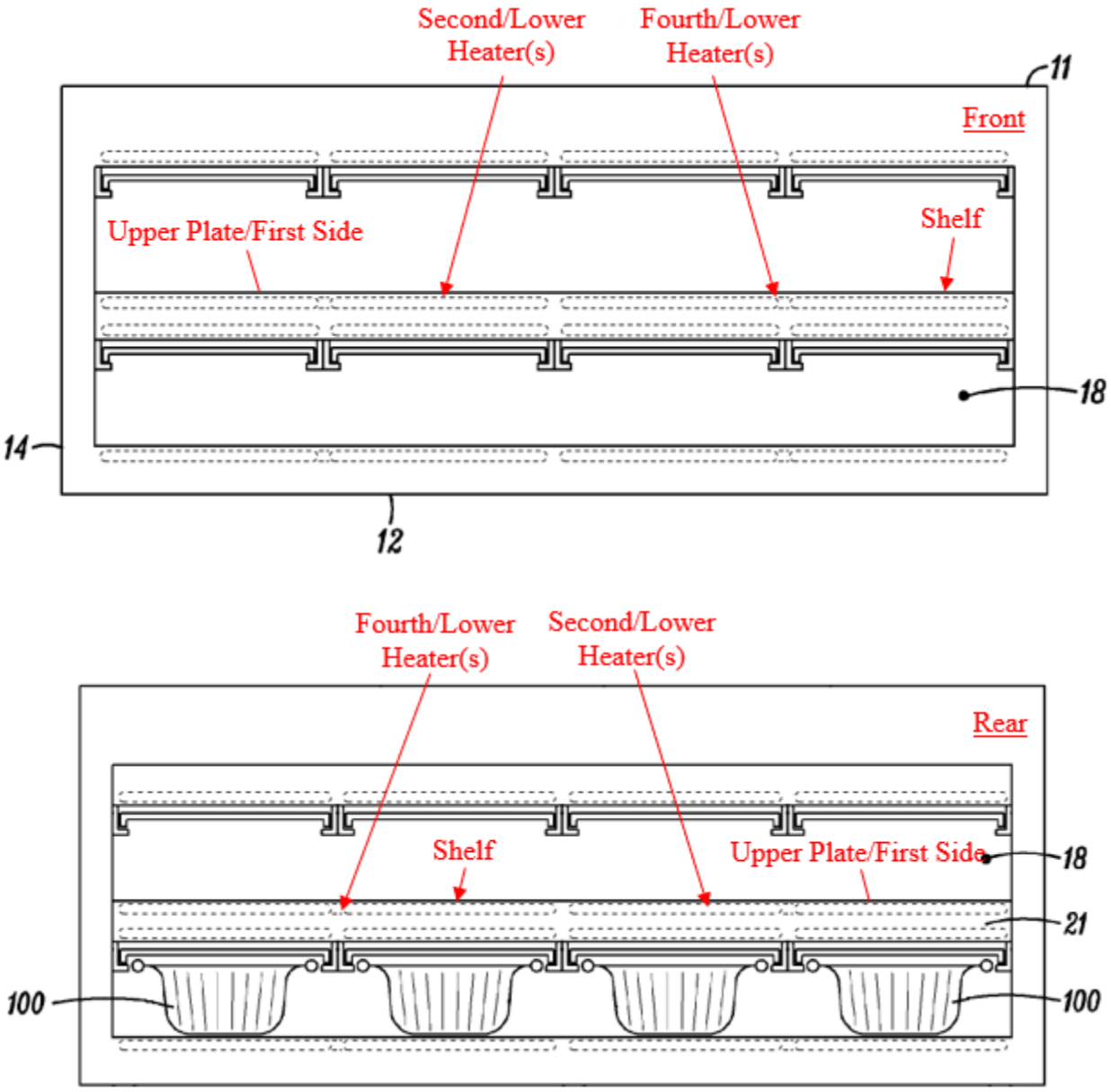



*FIG. 3*

EX1010: Fig. 3.

When modifying Fortmann'748's heaters per Sections XII(A)(2) and XII(B)(1.d.2/1.e.2), the POSA would follow Fortmann'748's teachings by arranging the lower heaters (second and fourth heaters) in the shelf to contact and be in conductive thermal communication with the upper sheet/first side. EX1010: ¶¶[0019]-[0020]; EX1003: ¶893.

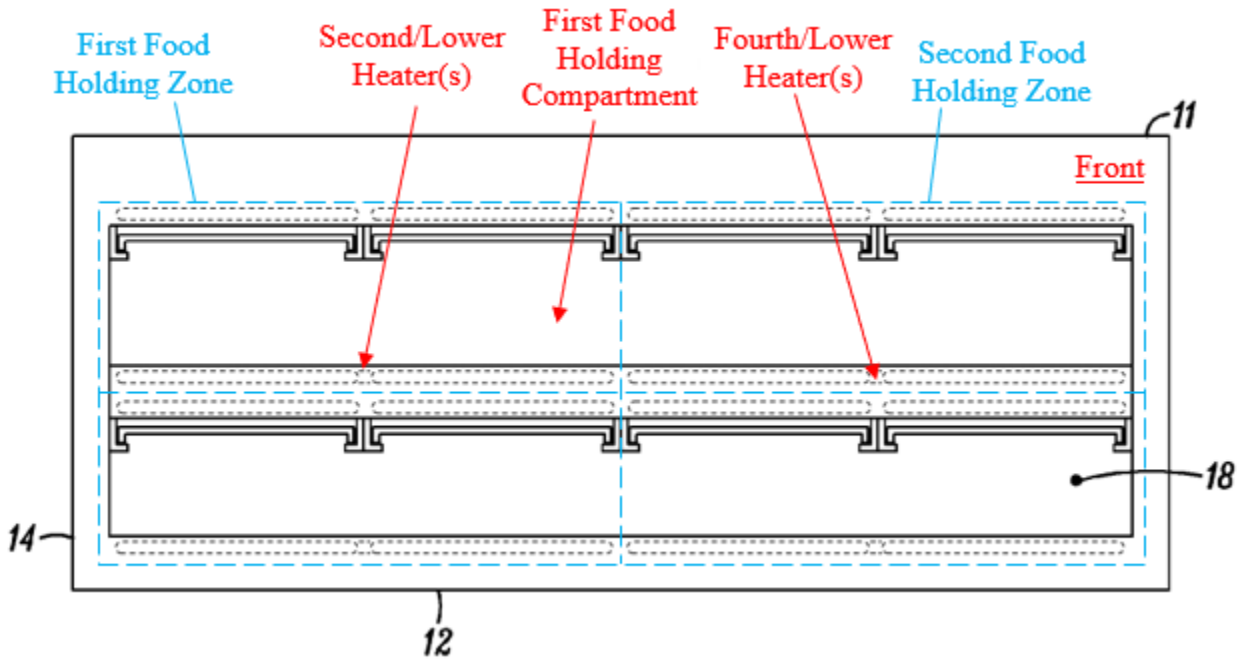


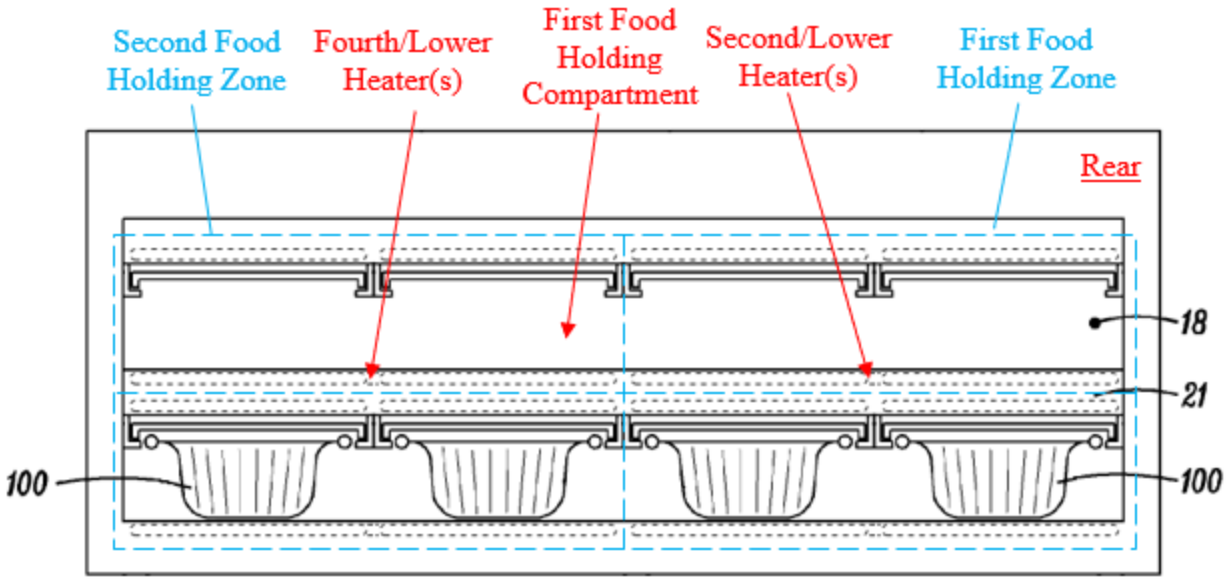

EX1010: Figs. 2, 6 (modified).

**21.i.3**

Sections XII(B)(1.f.2/13) and XII(A)(2)-(3) render obvious the first/upper compartment's lower heaters (second and fourth heaters of Section XII(B)(1.d.1/1.e.1)) being independently controllable from one another via

Fortmann'748's controller. EX1003: ¶894. The second and fourth heaters would be capable of providing different amounts of heat energy into the first and second zones via different setpoint temperatures. Section XII(B)(1.f.2/13); EX1003: ¶¶895-897. Different setpoint temperatures correspond to different amounts of heat energy. EX1003: ¶895.






EX1010: Figs. 2, 6 (modified).

**21.j.1**

Fortmann'748's shelf (21) comprises two planar stainless steel (thermally conductive) plates (22, 23) and one or more heaters (60). EX1010: ¶[0019]; EX1003: ¶¶898-899.

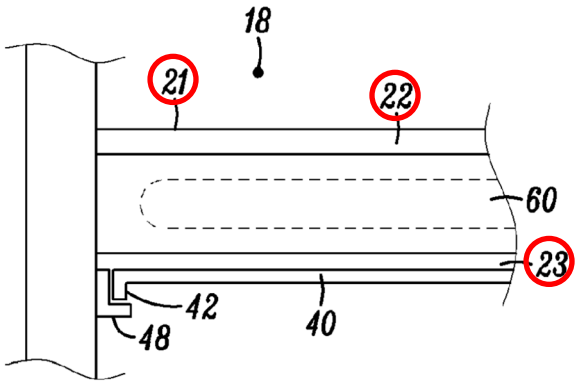
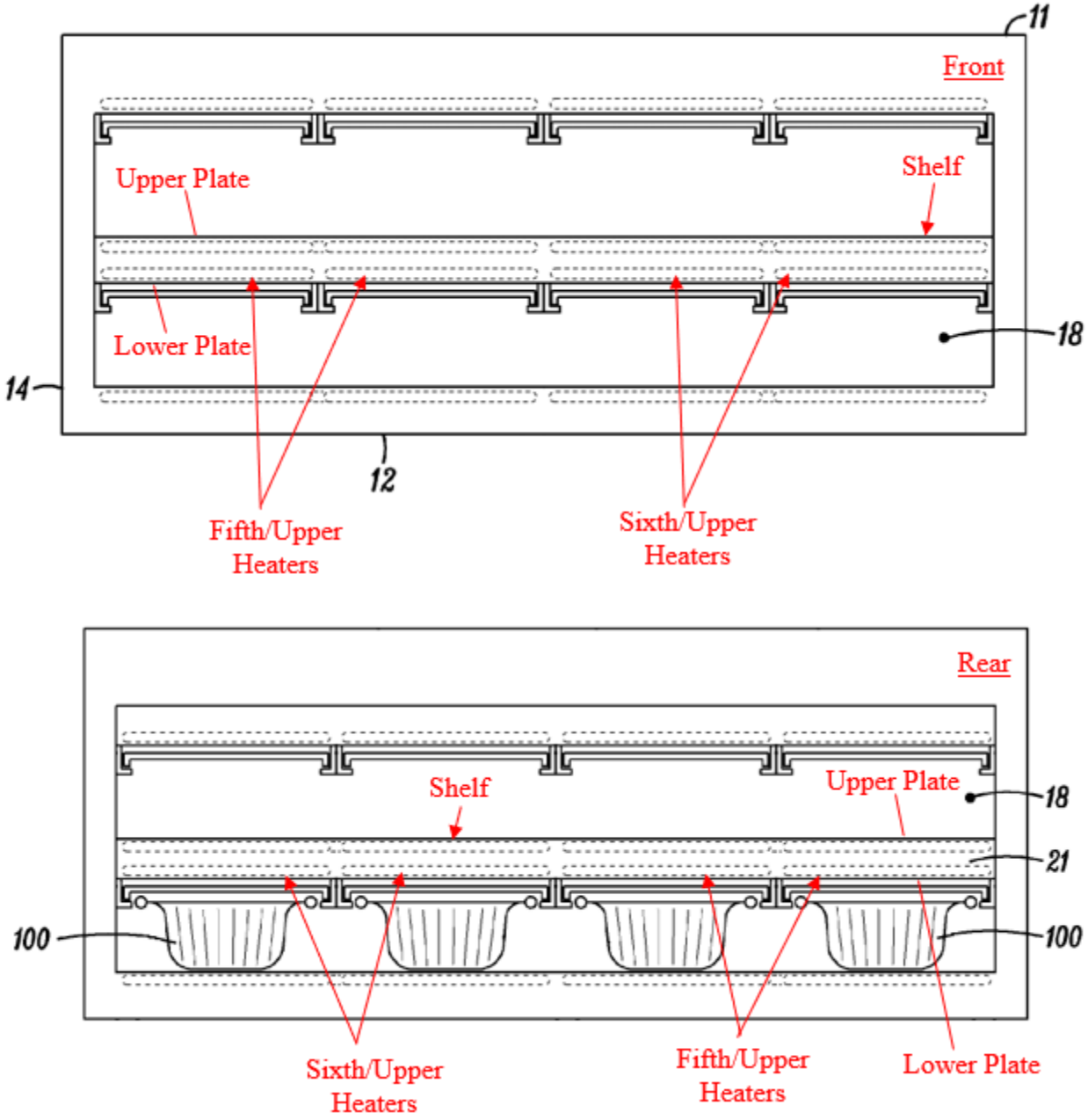



*FIG. 3*

EX1010: Fig. 3.

As discussed in Section XII(A)(2) it would have been obvious to duplicate Fortmann'748's heaters such that the shelf includes heaters (fifth and sixth heaters) for the second compartment. EX1010: ¶¶[0019]-[0020]; EX1003: ¶900.




EX1010: Figs. 2, 6 (modified).

**21.j.2**

Fortmann'748's shelf (21) comprises two plates (22, 23) with heater(s) (60) therebetween. EX1010: ¶[0019]; EX1003: ¶901.

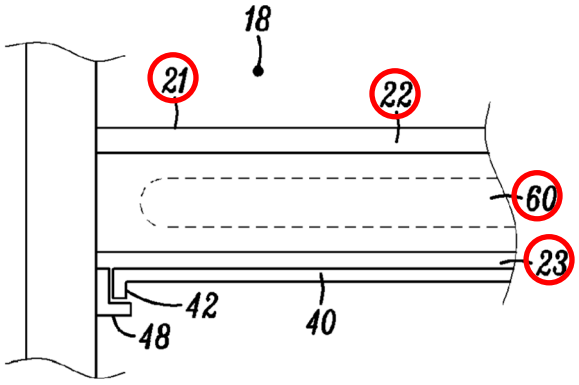
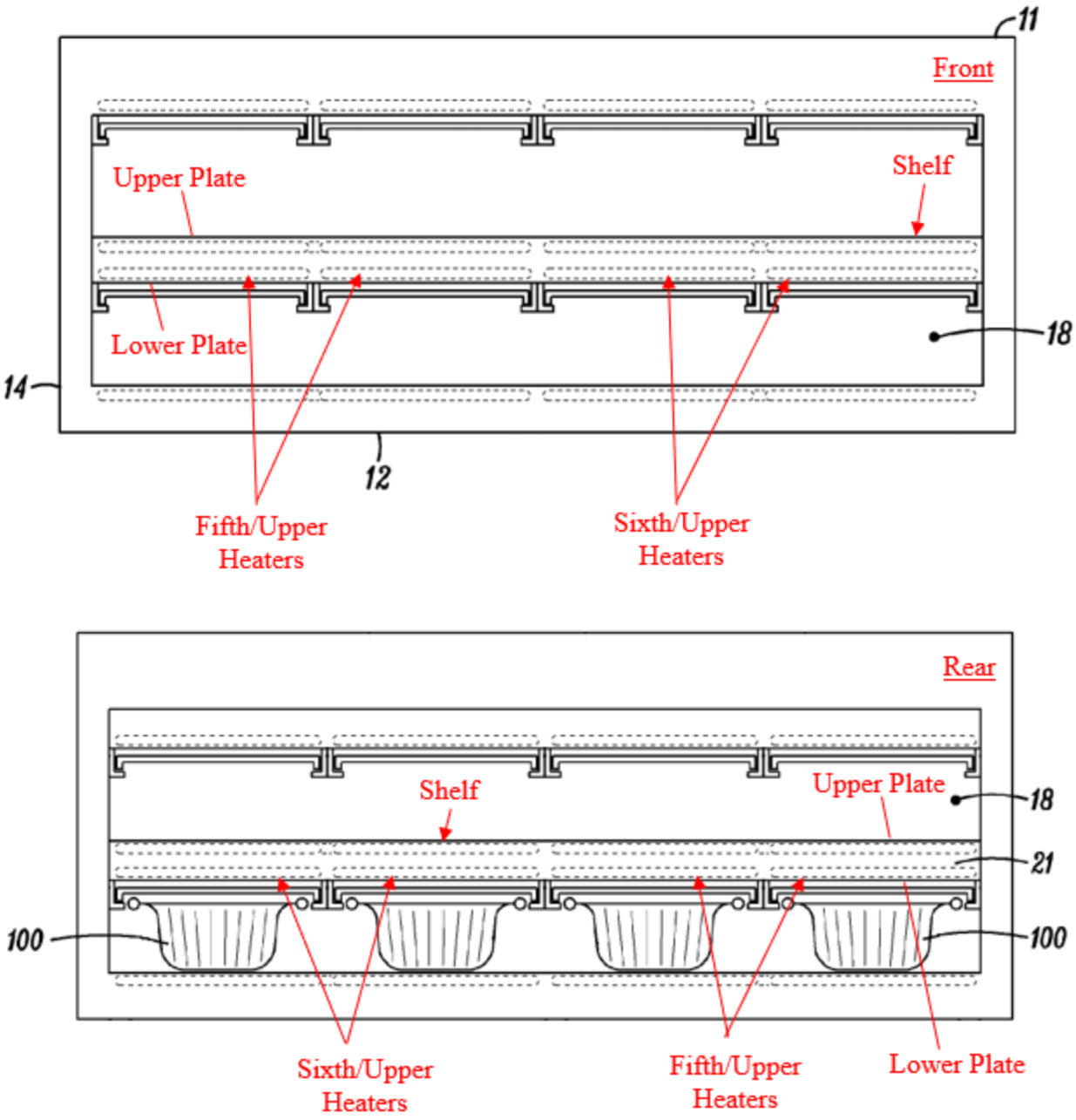



*FIG. 3*

EX1010: Fig. 3.

When duplicating Fortmann'748's heaters (Section XII(A)(2)), the POSA would dispose the heaters (fifth and sixth heaters of Section XII(C)(21.j.1)) between the thermally conductive plates. EX1010: ¶¶[0019]-[0020]; EX1003: ¶902.




EX1010: Figs. 2, 6 (modified).

**21.j.3**

Fortmann'748's heaters (60) are in contact (conductive thermal communication) with the upper and lower plates (22, 23). EX1010: ¶[0019]; EX1003: ¶¶903-904.

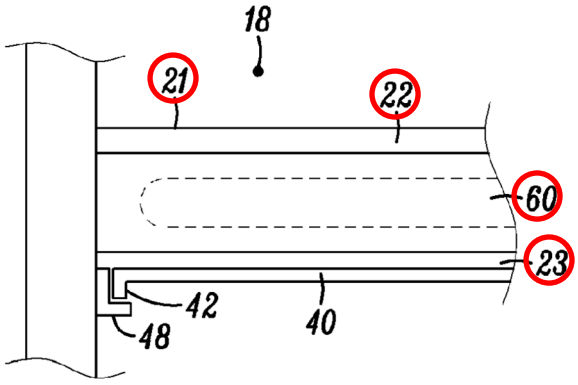
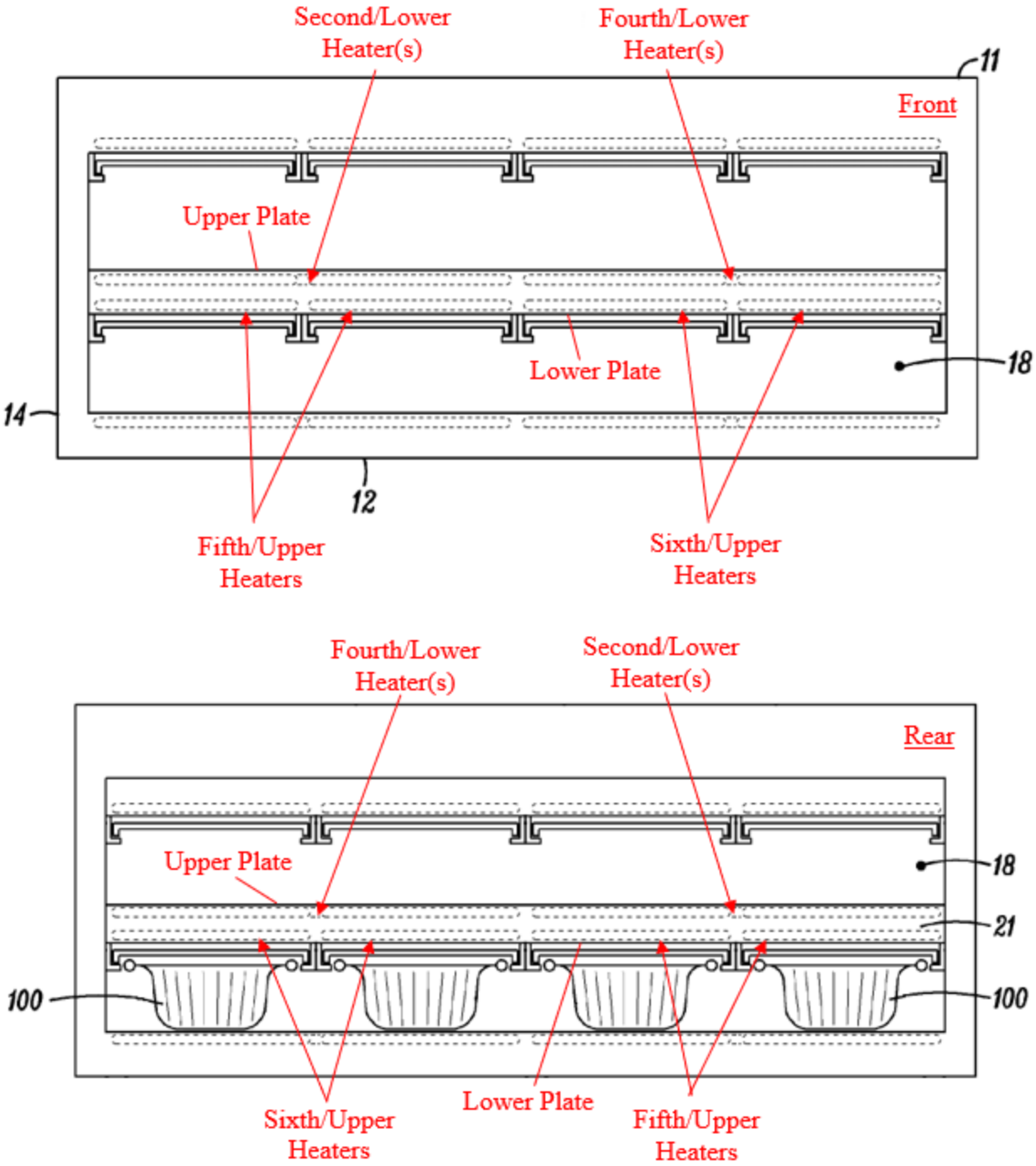



*FIG. 3*

EX1010: Fig. 3.

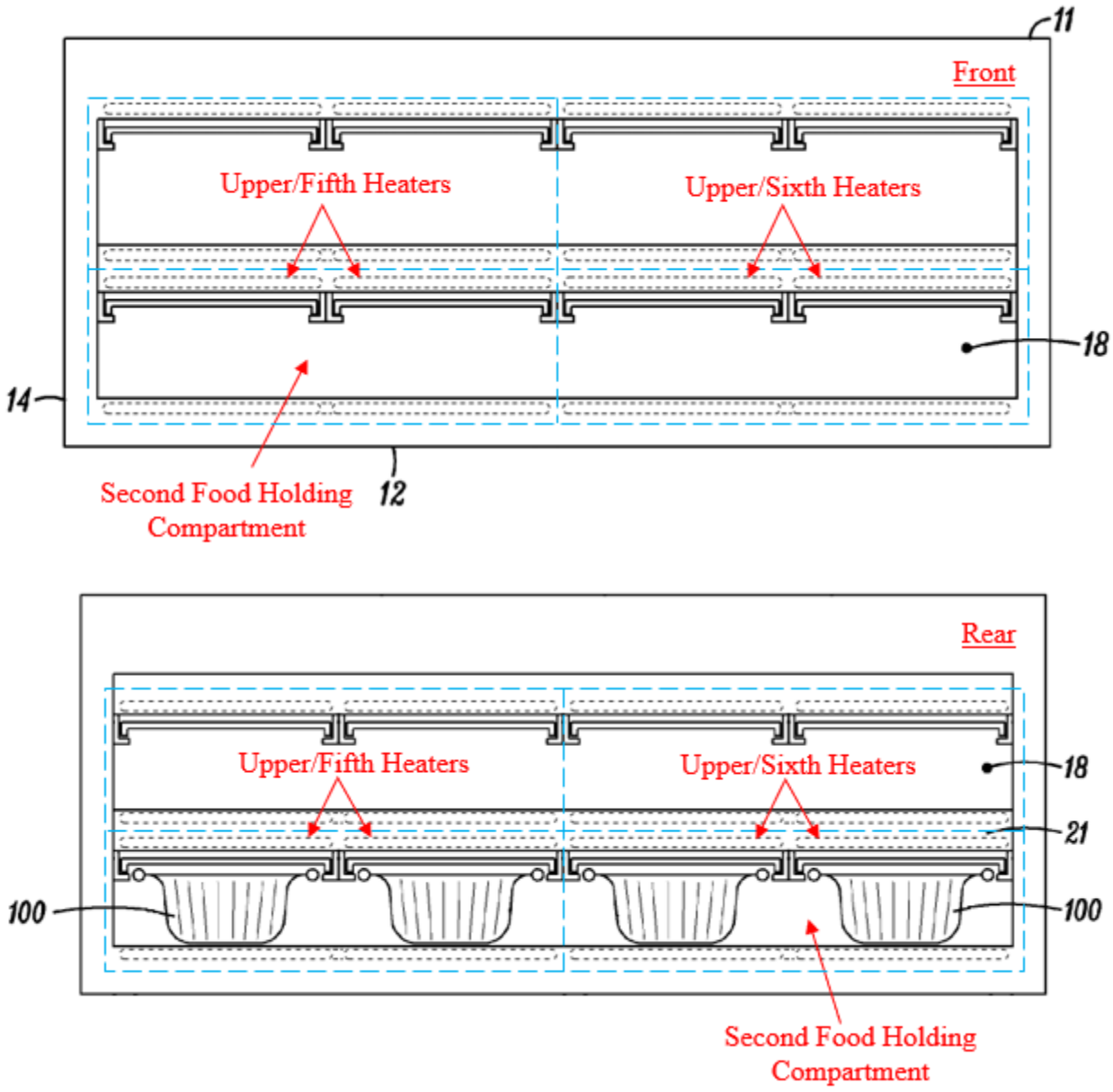
When modifying Fortmann'748's heaters per Section XII(A)(2), the POSA would follow Fortmann'748's teachings by arranging the lower heaters (second and fourth heaters) in conductive thermal contact/communication with the upper plate and the upper heaters (fifth and sixth heaters) in conductive thermal contact/communication with the lower plate. EX1010: ¶¶[0019]-[0020]; EX1003: ¶905.




EX1010: Figs. 2, 6 (modified).

**21.j.4**

Fortmann'748's heaters heat underlying compartments and pans. EX1010: ¶¶[0019]-[0020]; EX1003: ¶906. In modifying Fortmann'748 per Section XII(A)(2) such that the shelf includes fifth and sixth heaters of Section XII(C)(21.j.1), the fifth and sixth heaters would provide heat energy into the second compartment. EX1010: ¶¶[0019]-[0020]; EX1003: ¶¶907-908.



EX1010: Figs. 2, 6 (modified).

### D. Claim 2

Fortmann'748's top panel (11) and each shelf include a lid resting/sliding on tracks (48) (lid holding ledges/shelves) above planar surfaces. EX1010: ¶¶[0017]-[0018]; EX1003: ¶¶790-793.

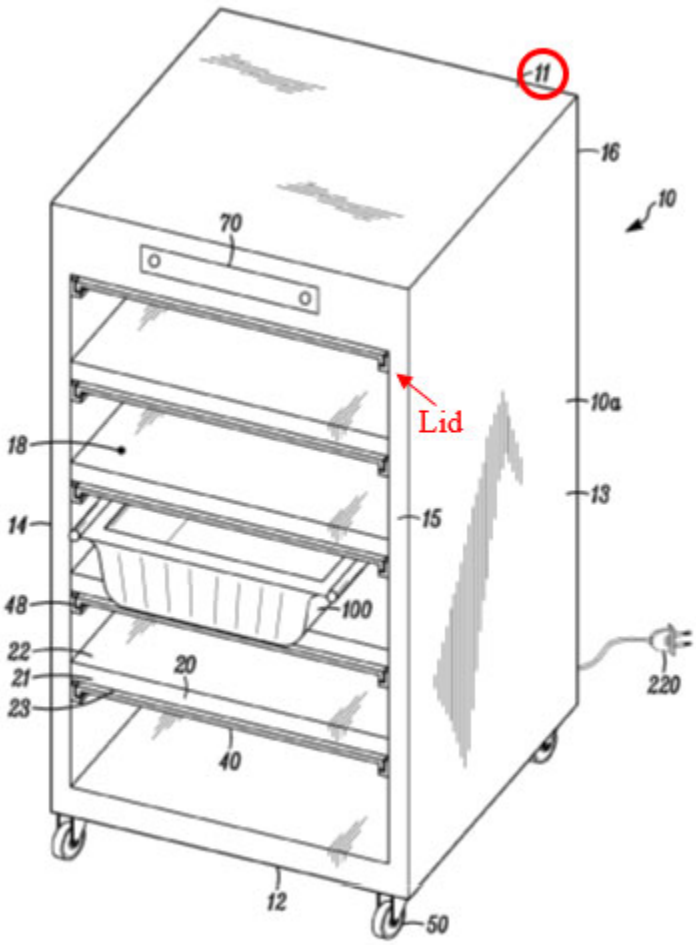



FIG. 1

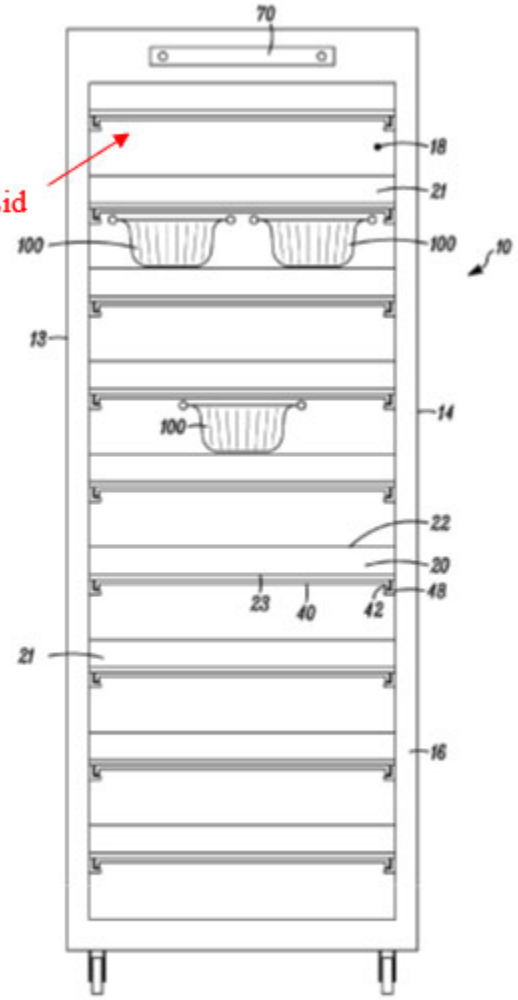



FIG. 6

EX1010: Figs. 1, 6.

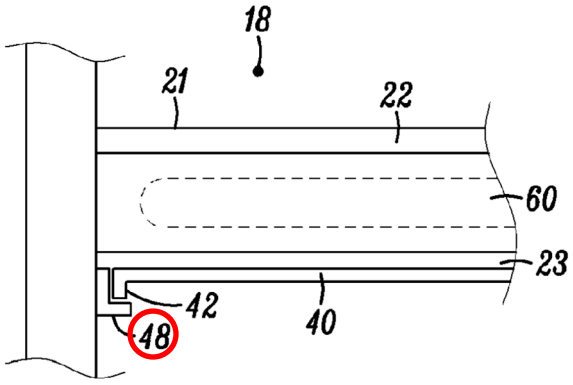
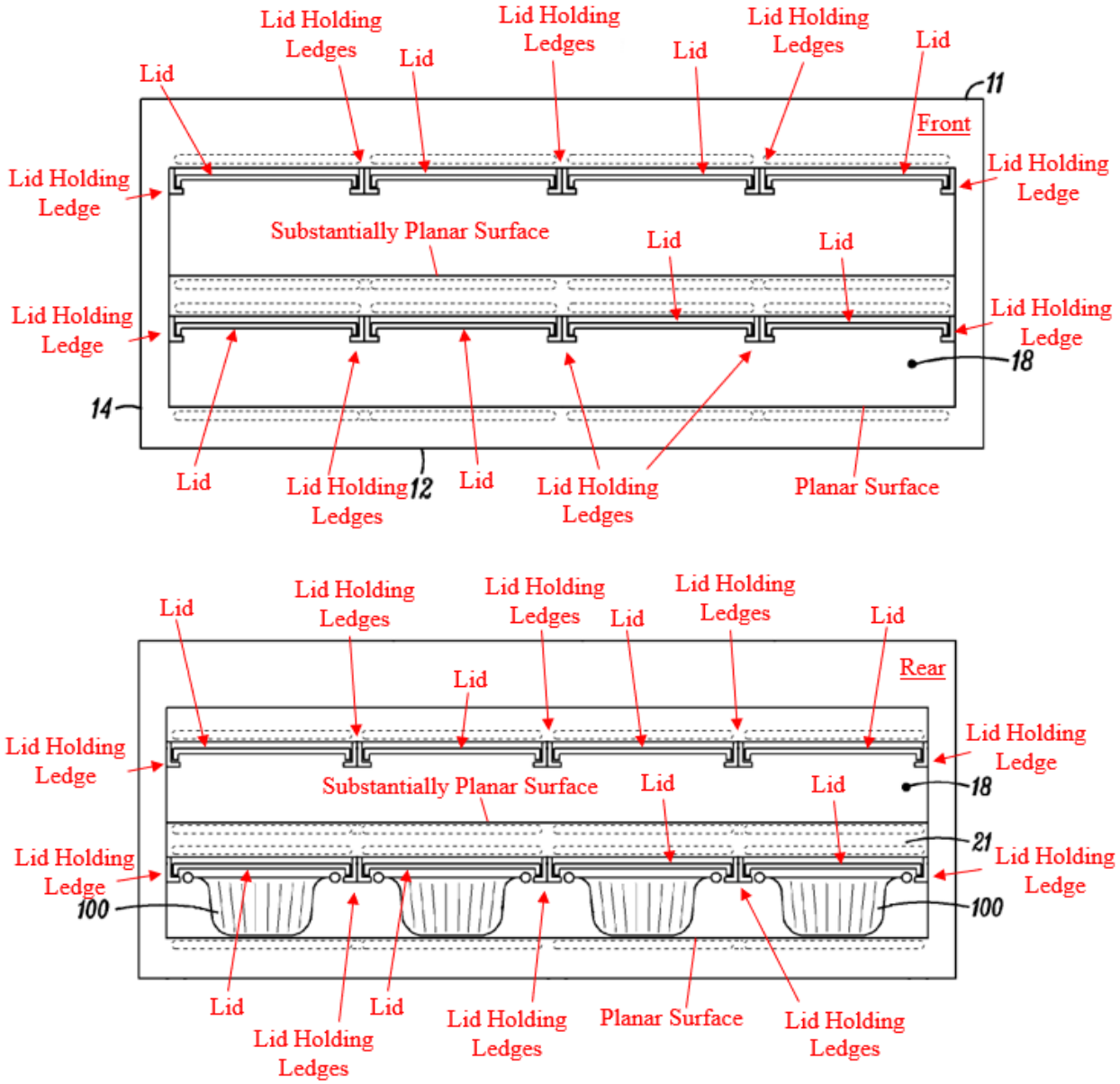



*FIG. 3*

EX1010: Fig. 3.

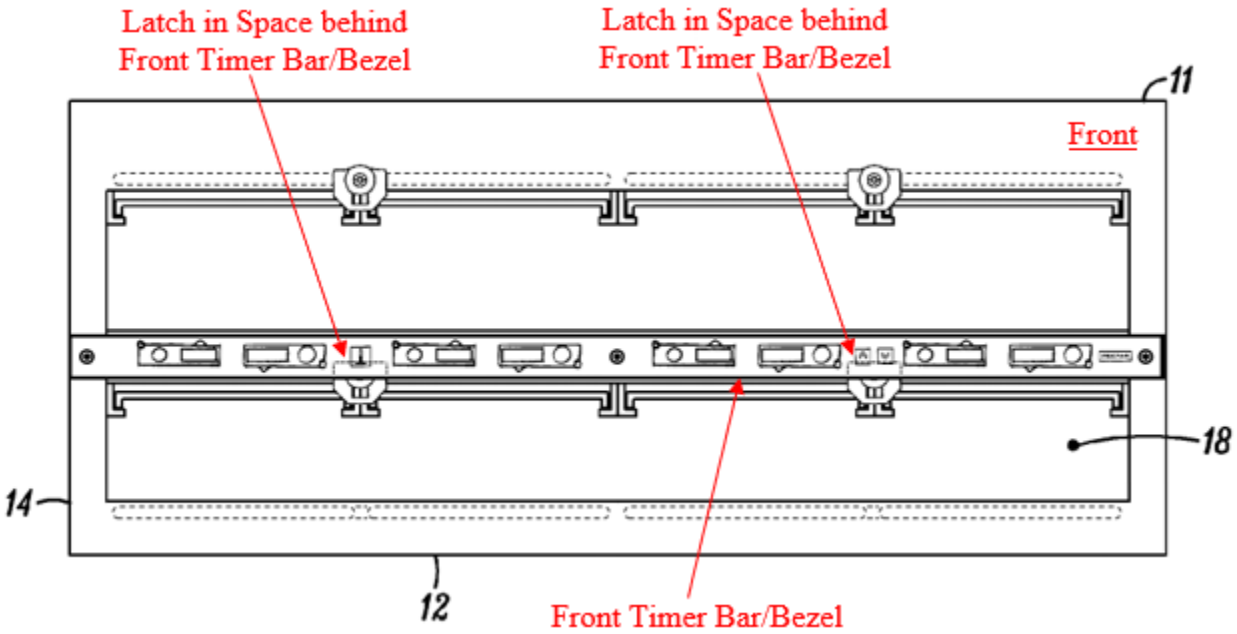
Jones, Fortmann'197, and IRHS Documents disclose each bay having a dedicated lid and associated tracks such that it would have been obvious for Fortmann'748's cabinet to have lids held on tracks (lid holding ledges) elevated above the planar surface per Section XII(A)(7). EX1012: ¶[0072], Fig. 1B; EX1014: 4:50-53, 7:31-32, Figs. 1-4; EX1005: 8; EX1006: 1-2; EX1007: 53, 58; EX1003: ¶¶794-795.



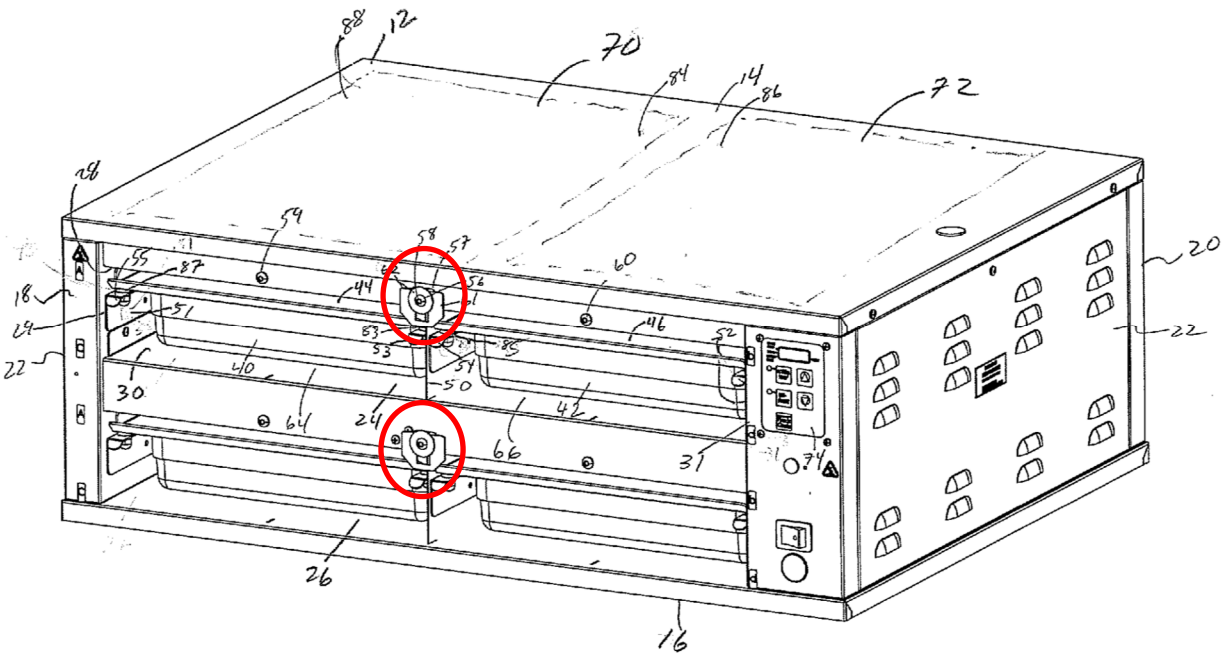

EX1010: Figs. 2, 6 (modified).

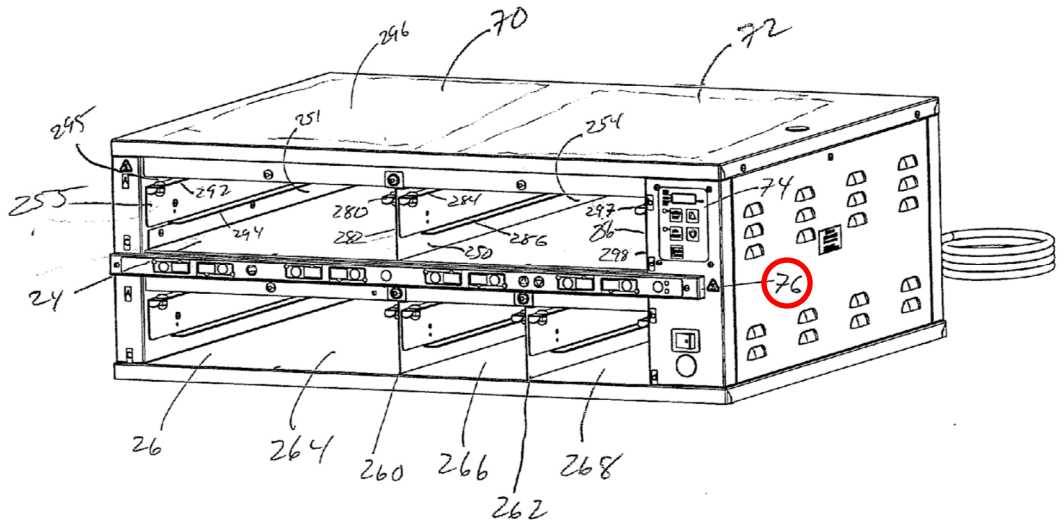
It would have been obvious for Fortmann'748's cabinet to have a space between the front timer bar/bezel and shelf. Sections XII(A)(6), XII(B)(1.g); EX1003: ¶796. Based on Hartfelder/Shei'099, the stops (latches) would have been in this space to engage and retain the lids (even with a bezel (76)). Section

XII(A)(8); EX1013: ¶¶[0039], [0058], Figs. 1-5, 9; EX1017: 6:9-32; EX1003: ¶¶797-799.




EX1010: Fig. 2 (modified).




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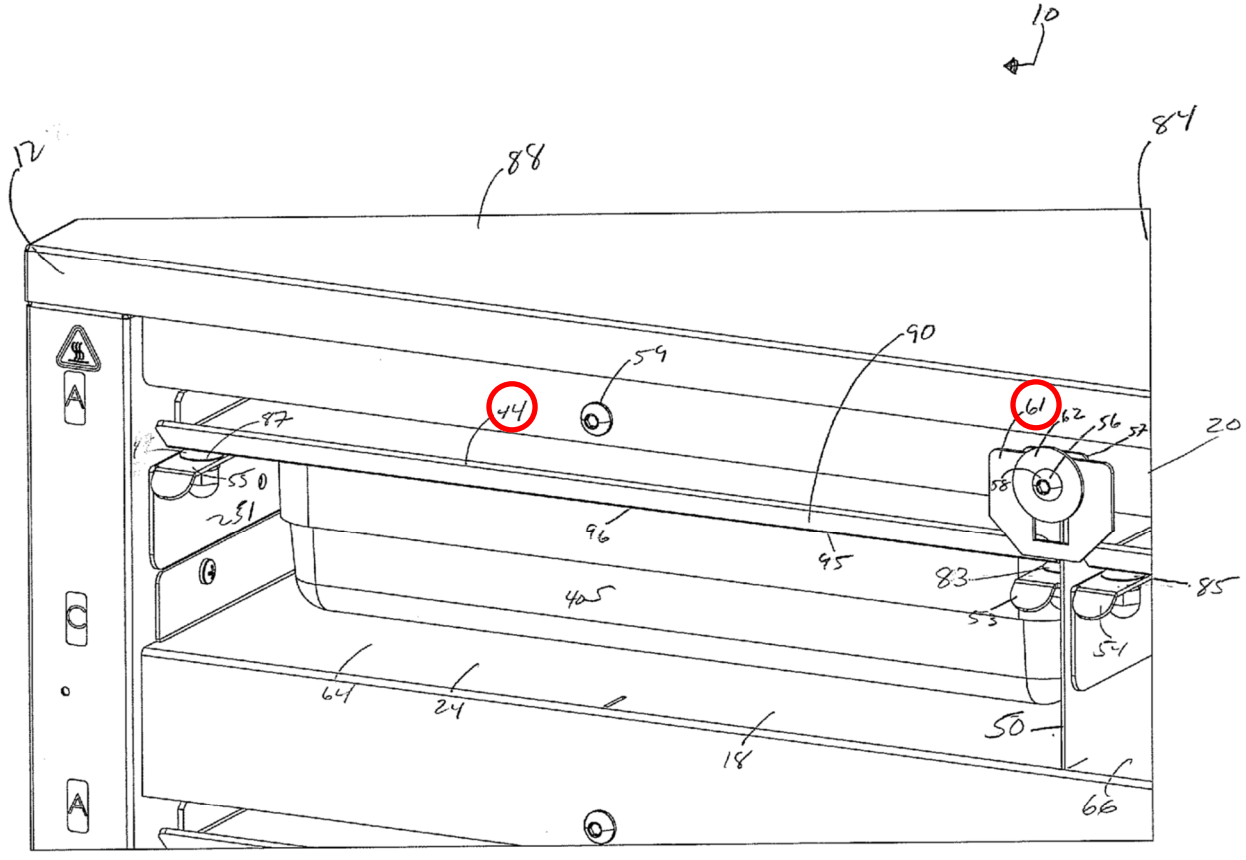

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FIGURE 9

EX1013: Figs. 1, 3, 9.

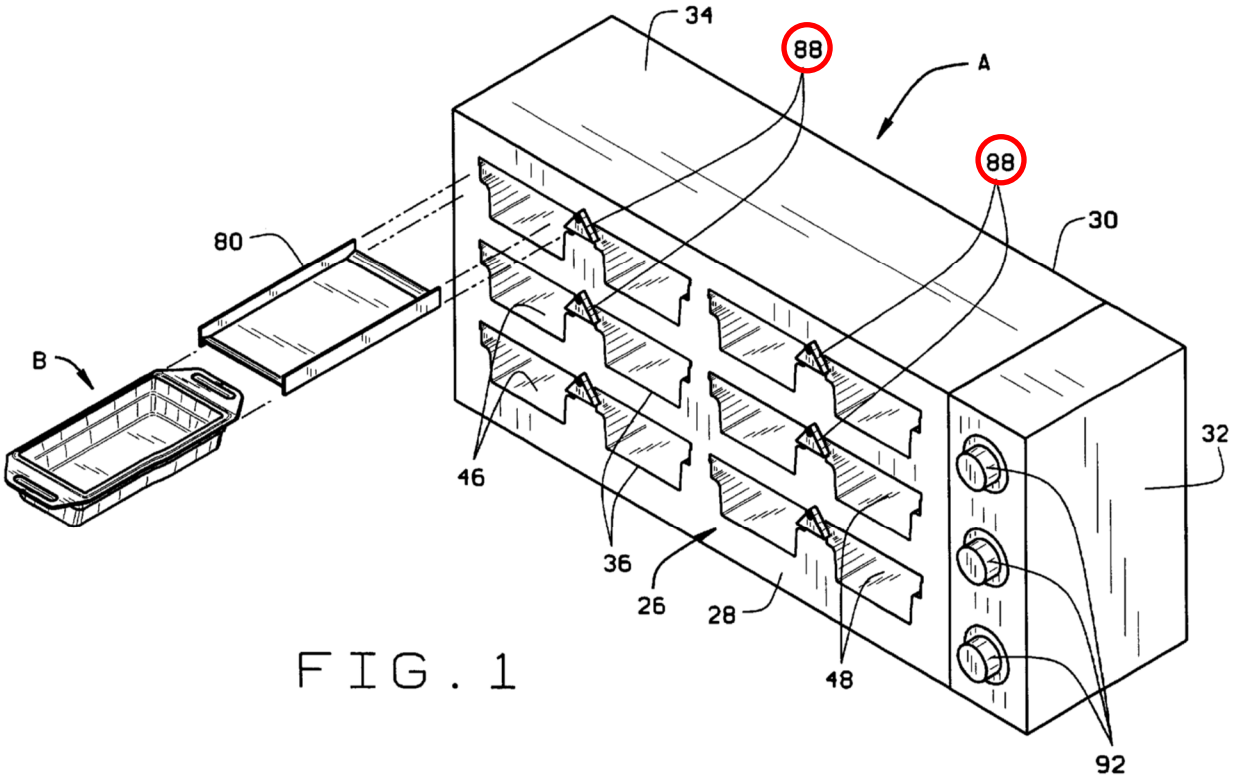
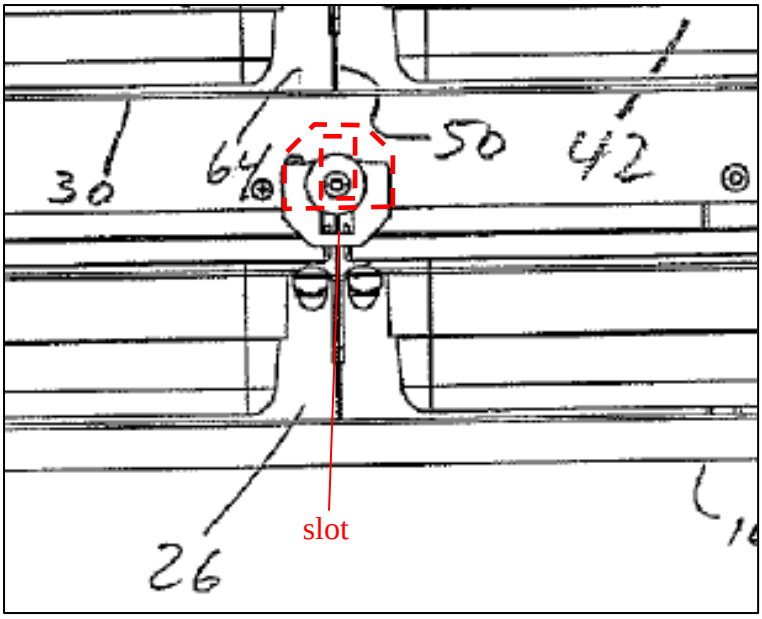


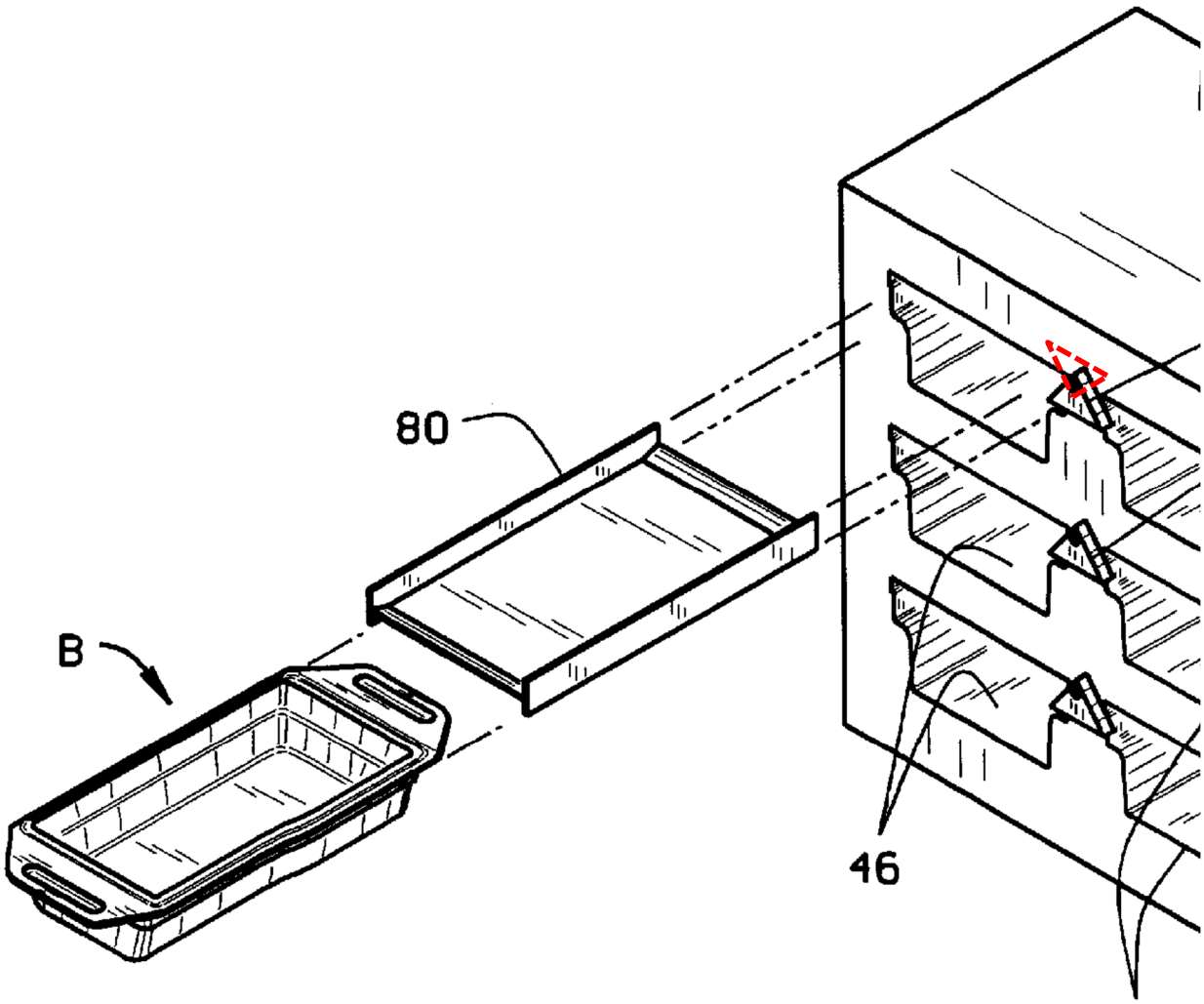

FIG. 1

EX1017: Fig. 1.

Hartfelder's and Shei'099's stops are moveable/rotatable between locked and unlocked positions. EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; EX1003: ¶¶800-803.

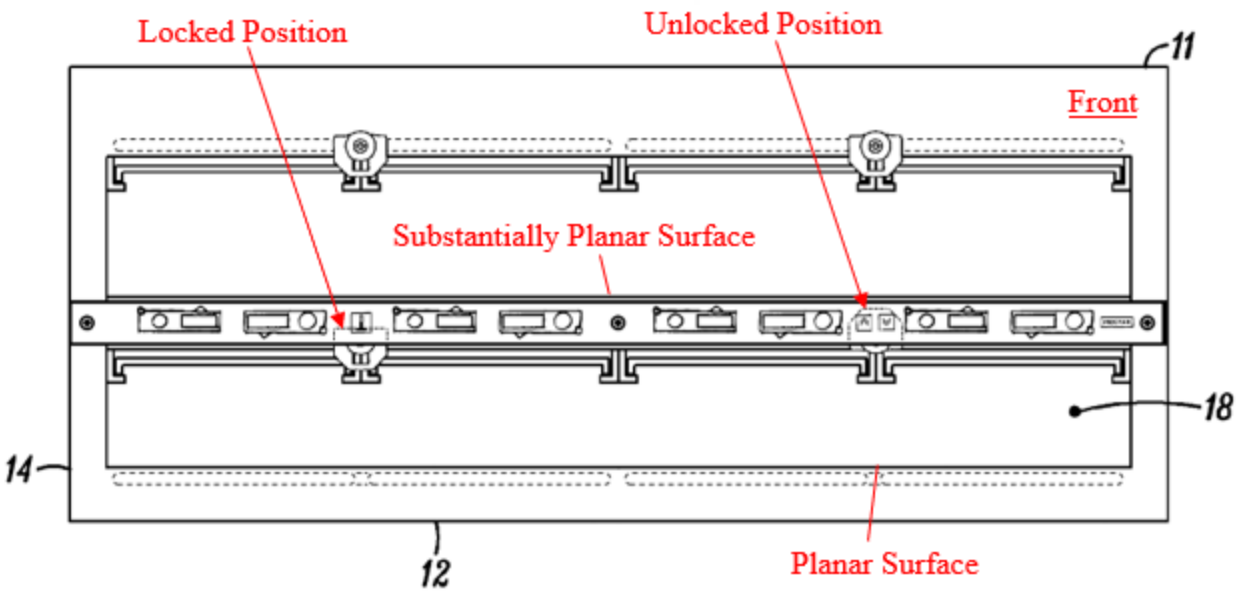



EX1013: Fig. 2 (enlarged).




EX1017: Fig. 1 (enlarged).

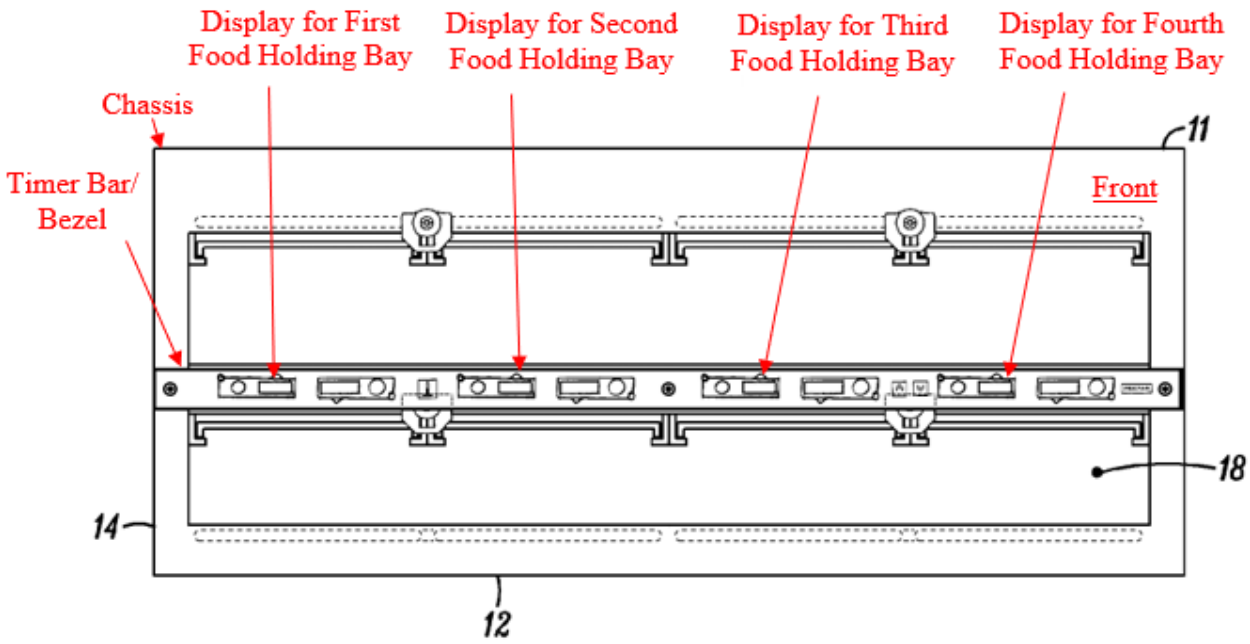
Therefore, latches in the space behind the front timer bar that rotate in the space between locked and unlocked positions to retain/release lids held on lid holding ledges would have been obvious. EX1003: ¶¶804-806.




EX1010: Fig. 2 (modified).

**E. Claim 3**

It would have been obvious to add front and rear timer bars/bezels to Fortmann'748's cabinet. Section XII(A)(6); EX1003: ¶¶807-809. Based on Vaseloff, it would have been obvious for each timer bar/bezel to have display/control groups (each including a display device), one group for each bay. Sections XII(A)(4), XII(A)(6); EX1026: 3:48-51, 4:5-6, 4:20-33, 4:48-49, Figs. 3, 4, 10; EX1003: ¶810. Based on McMillan, it would have been obvious for each display device to display the set temperature of the corresponding bay. Section XII(A)(5); EX1019: 10:30-32; EX1003: ¶¶811-813.




EX1010: Fig. 2 (modified).

### F. Claim 4

#### 4.a.1/23.a.1

Fortmann'748's chassis (10a) has an open rear (16) to allow pans (100) to enter/exit the compartments. EX1010: ¶[0014]; EX1003: ¶¶814-816.

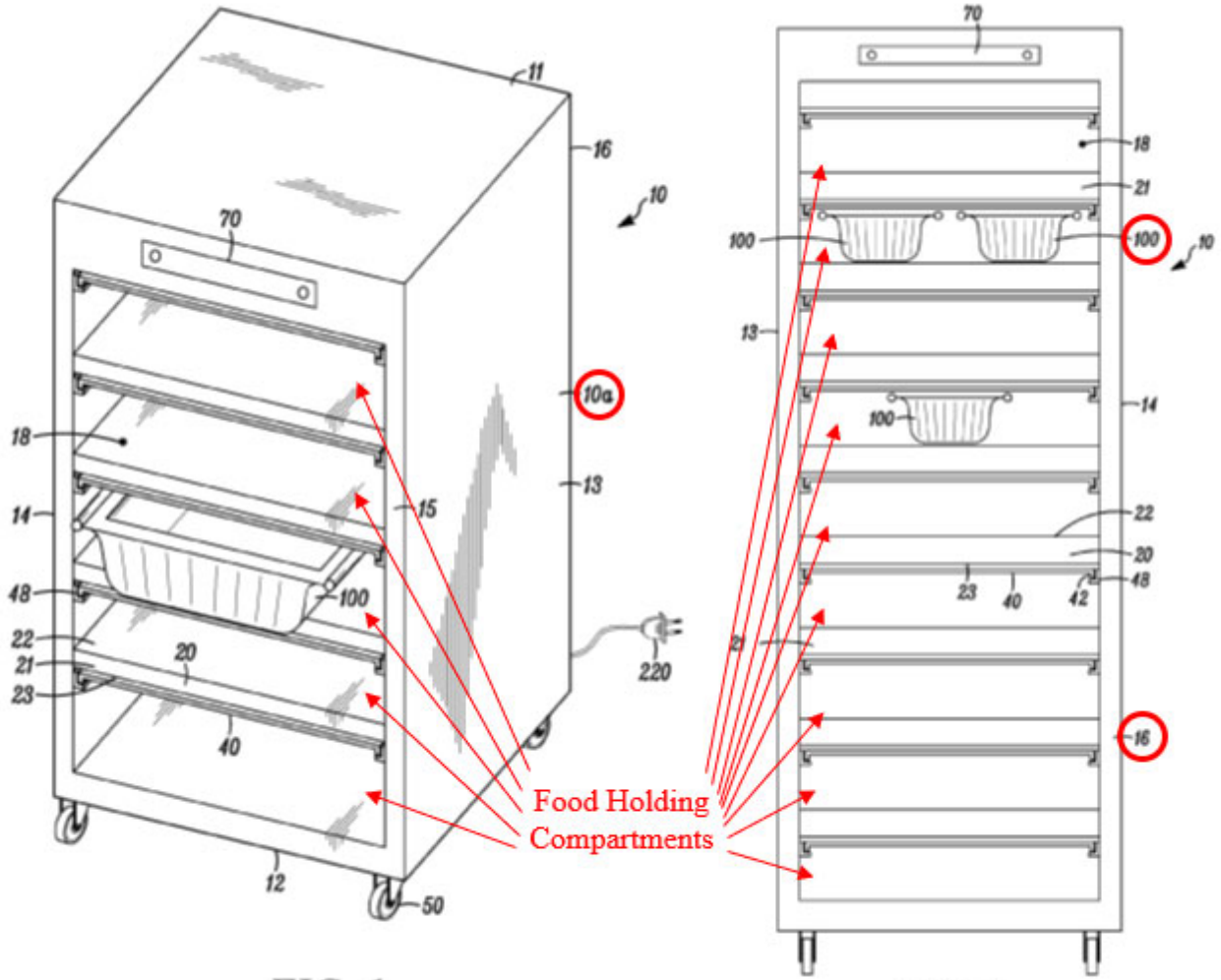
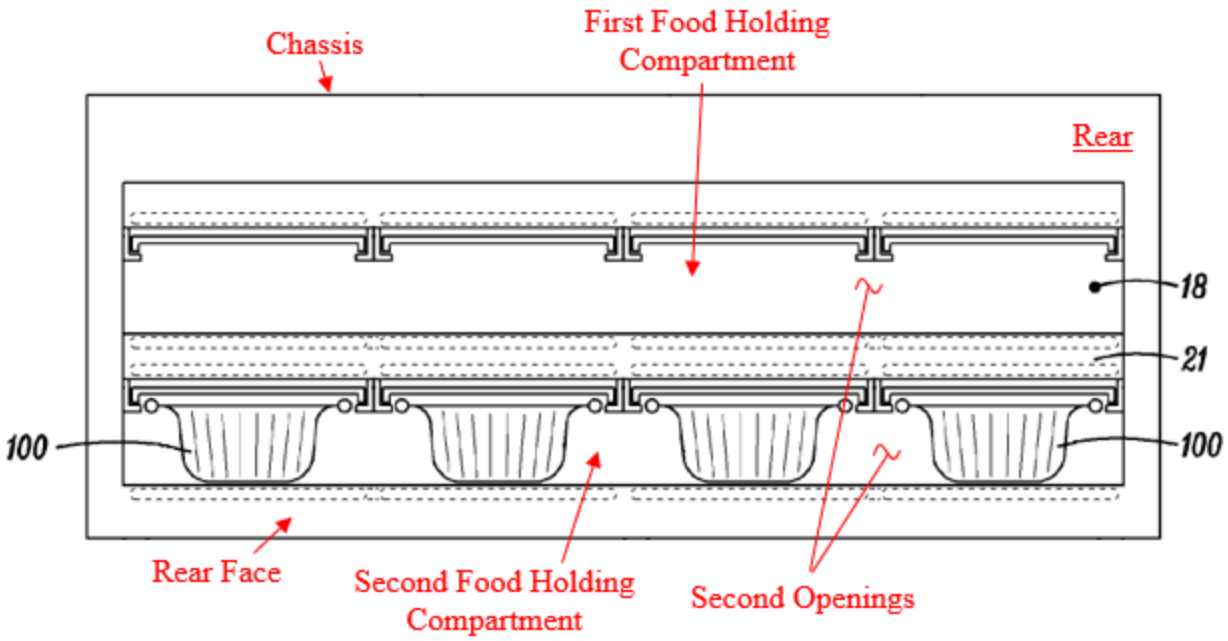



FIG. 1 FIG. 6

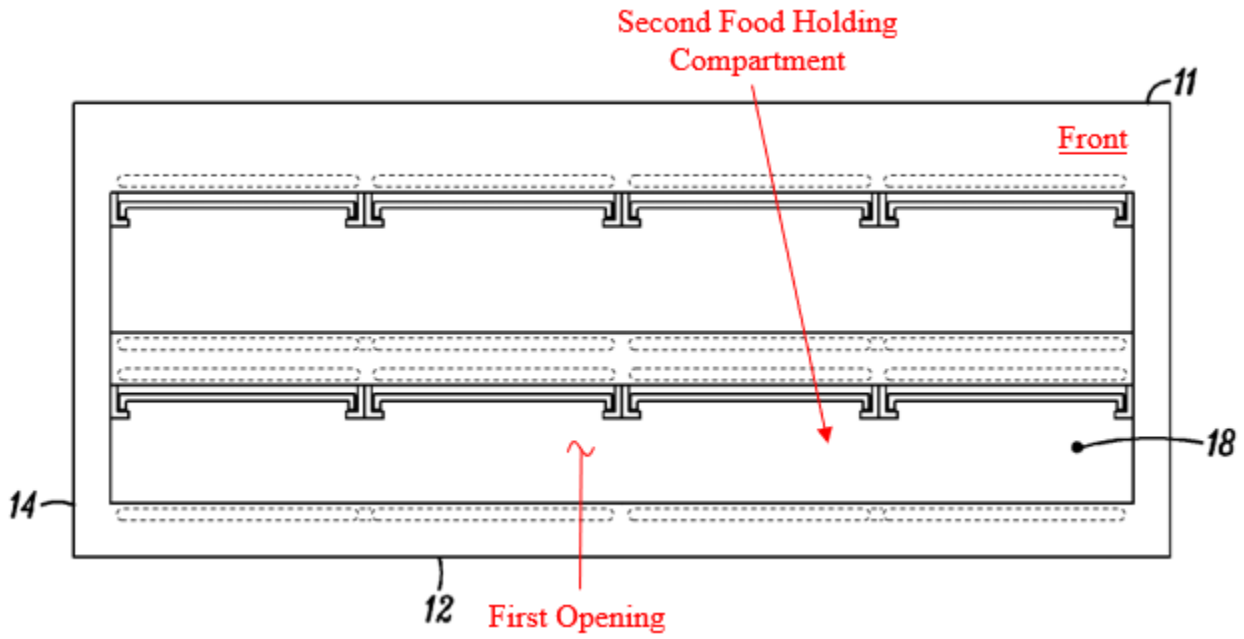
EX1010: Figs. 1, 6.

Fortmann'748's cabinet has first and second food holding compartments each having an uncovered second opening at the rear chassis face. EX1003: ¶¶817, 918-920.




EX1010: Fig. 6 (modified).

The second compartment has a first opening. EX1003: ¶818.




EX1010: Fig. 2 (modified).

**4.a.2/23.a.2**

Fortmann'748's chassis (10a) has open front and rear sides (15, 16) for pans (100) to enter/exit the compartments. EX1010: ¶[0014]; EX1003: ¶¶819-820.

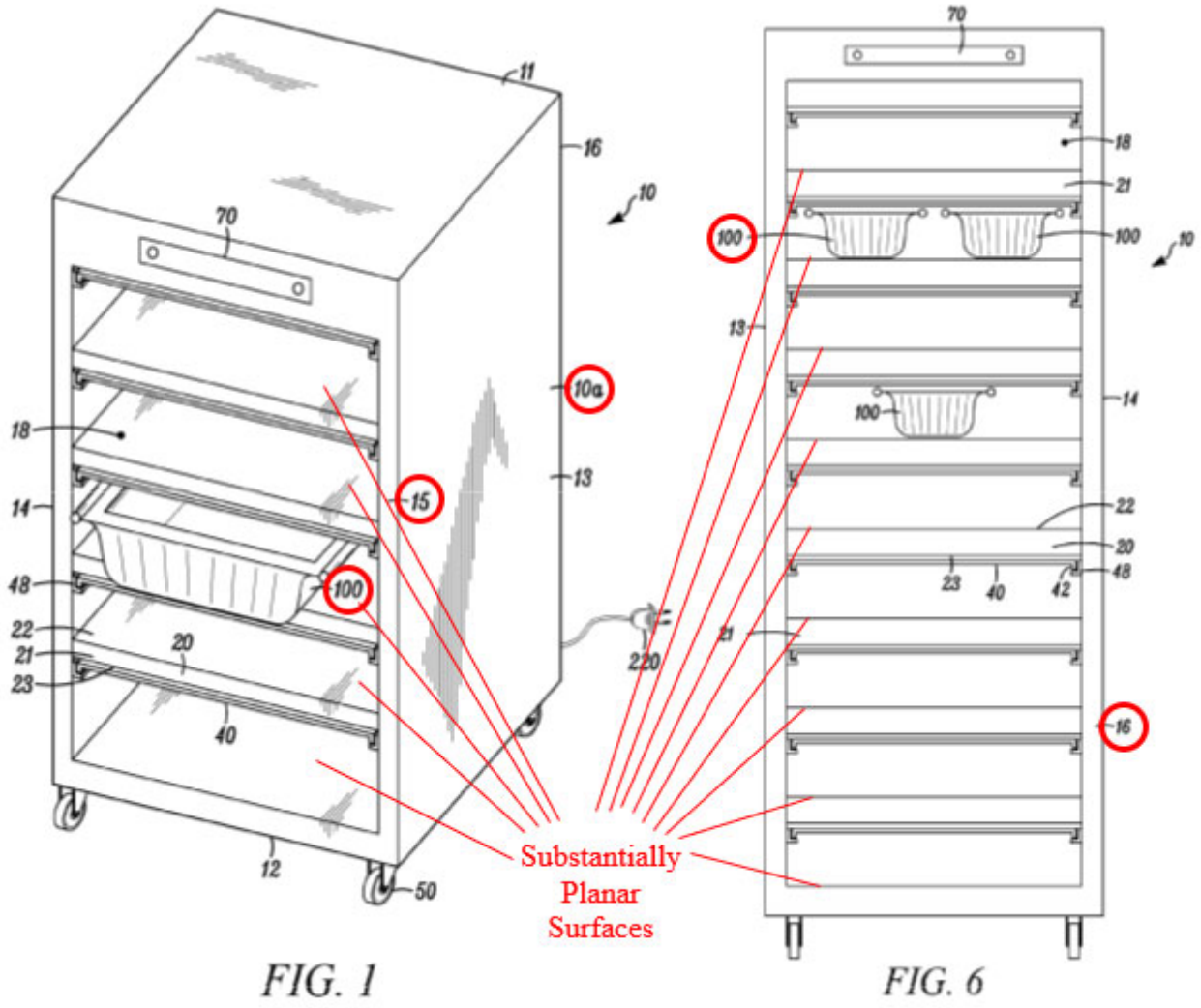
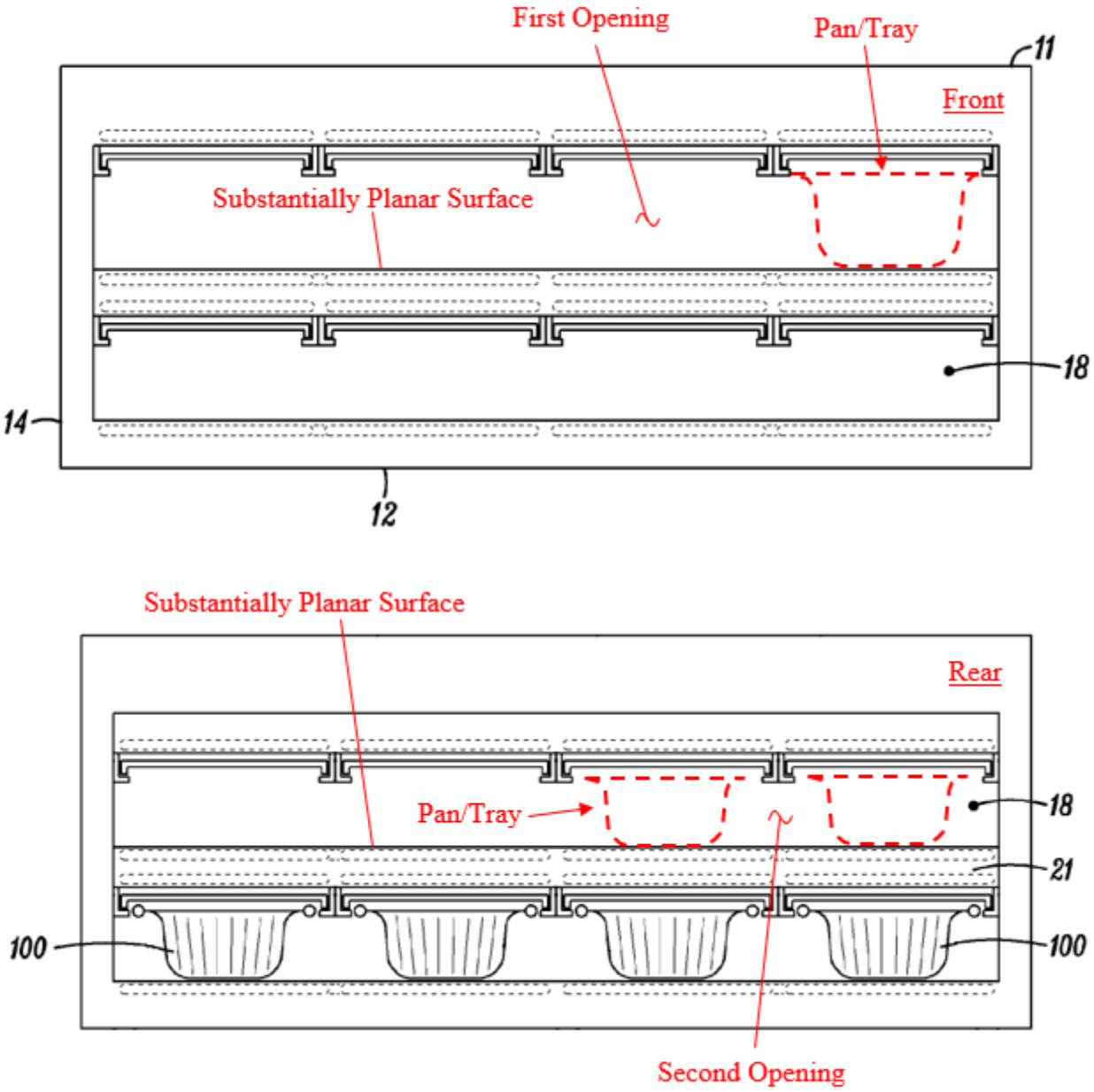



FIG. 1 FIG. 6

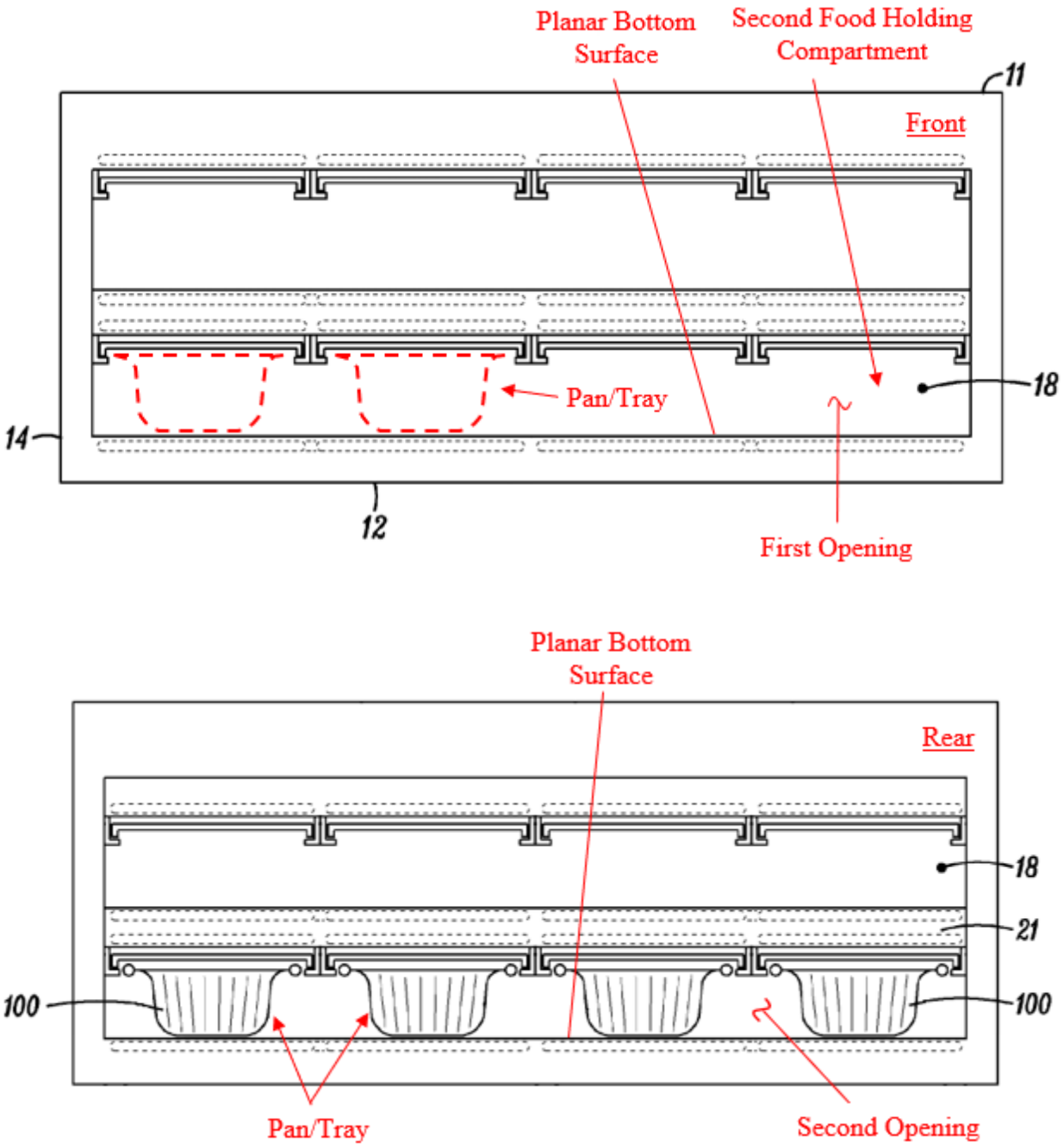
EX1010: Figs. 1, 6.

For the first and second compartments, the planar surfaces allow pans (100) to pass through the first opening to rest on the planar surface and to be removed

from the planar surface through the second opening. EX1010: ¶¶[0015], [0017]; EX1003: ¶¶821-823, 921-922.




EX1010: Figs. 2, 6 (modified).

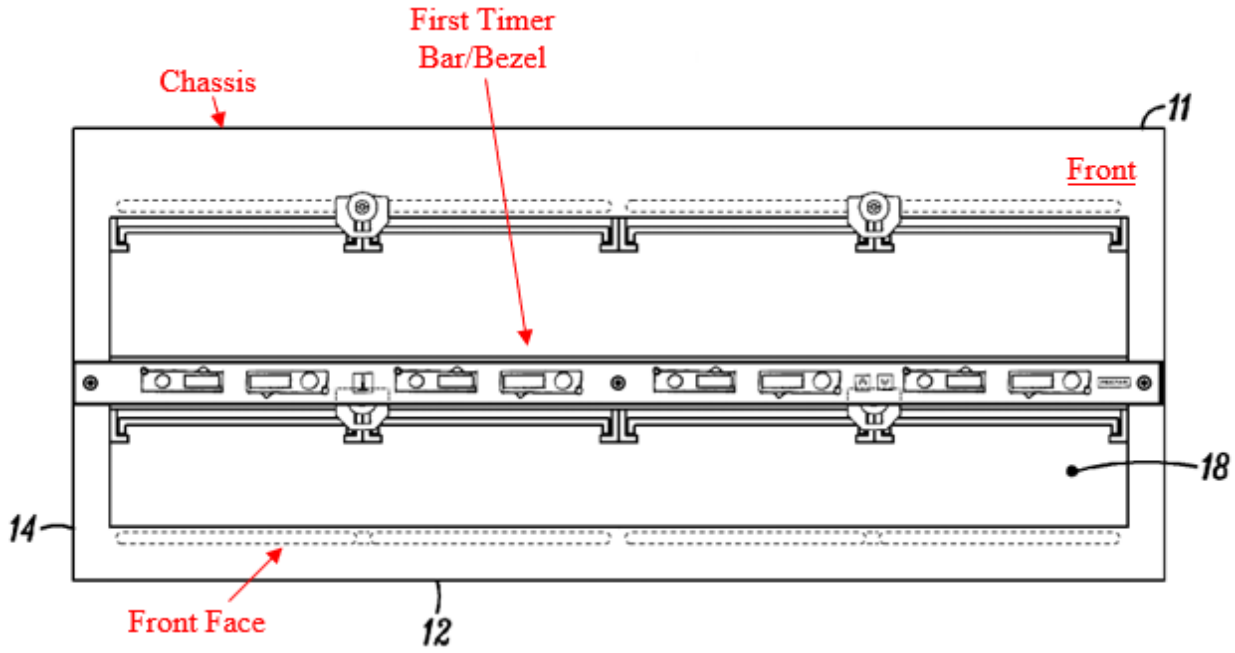


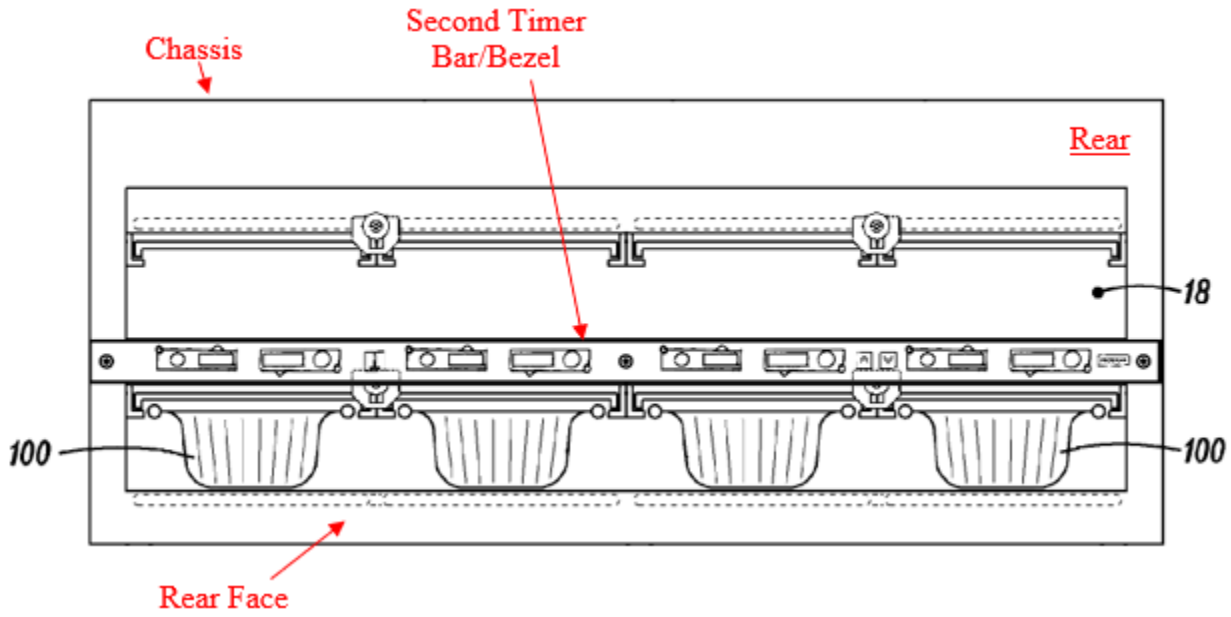

EX1010: Figs. 2, 6 (modified).

### G. Claim 5

Fortmann'197, IRHS Documents, and Hartfelder disclose front and rear timer bars/bezels such that it would have been obvious to include them in

Fortmann'748's cabinet per Section XII(A)(6). EX1005: 8; EX1006: 1-2; EX1007: 28, 32, 51; EX1013: Figs. 3, 4, 9; EX1014: 3:28-46, 4:18-37, Figs. 1-3, 5; EX1003: ¶¶824-828. The front timer bar/first bezel would have been proximate the front face and the rear timer bar/second bezel would have been proximate the rear face. Section XII(A)(6); EX1003: ¶¶829-831.






EX1010: Figs. 2, 6 (modified).

### H. Claim 7/26

Fortmann'748's planar surface is free of dividing walls/structures between bays. EX1003: ¶¶832-834, 928-930.

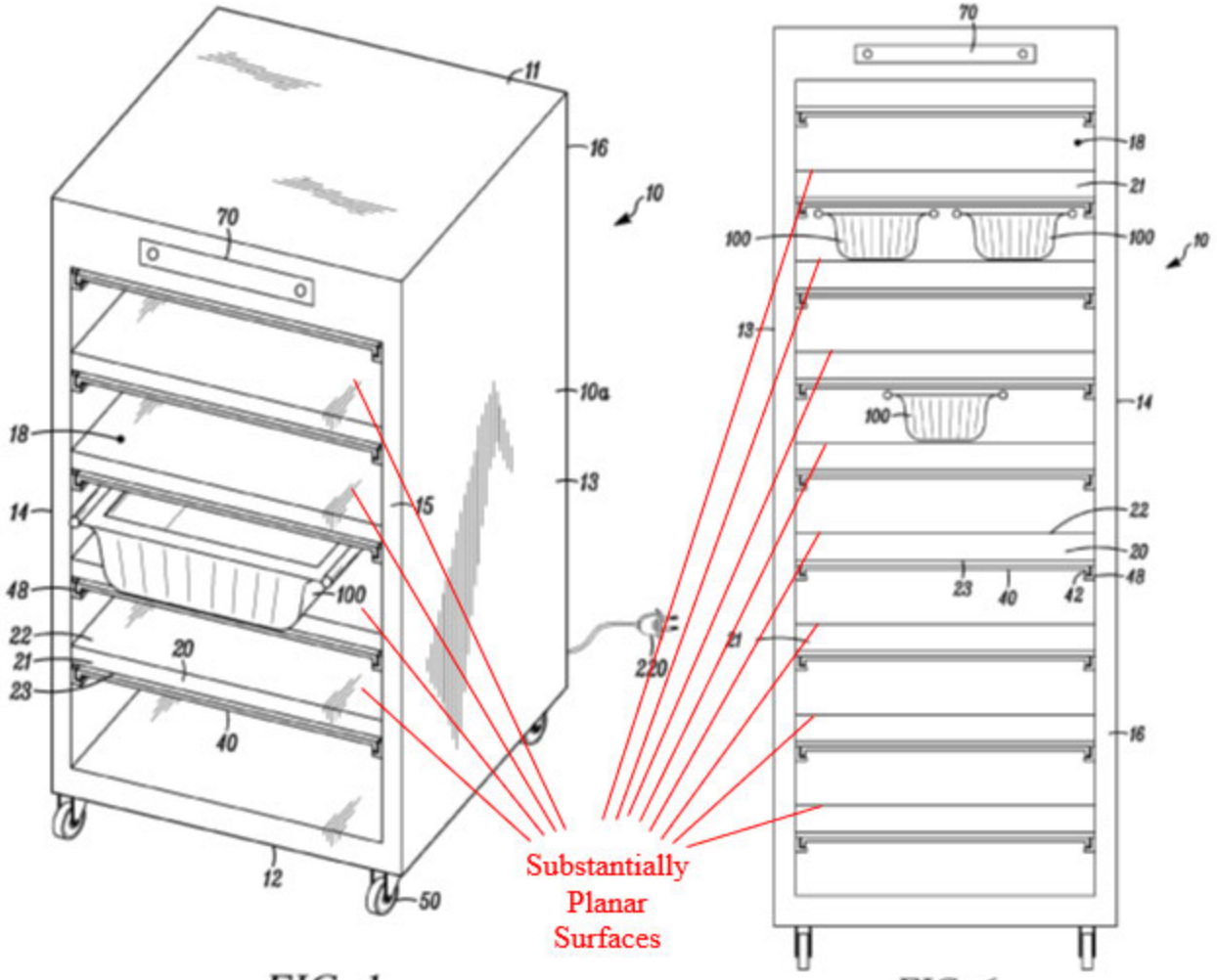
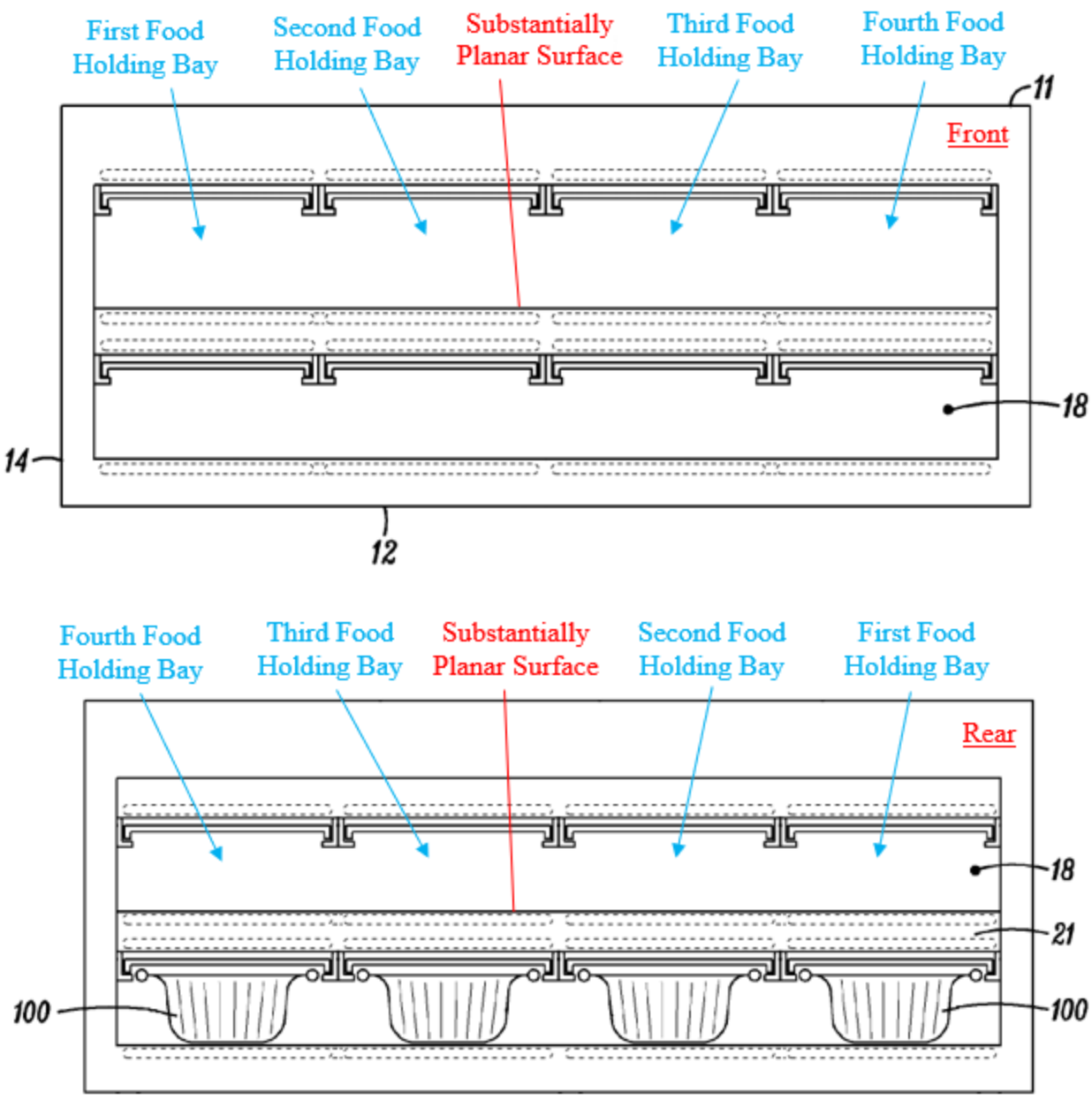



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.



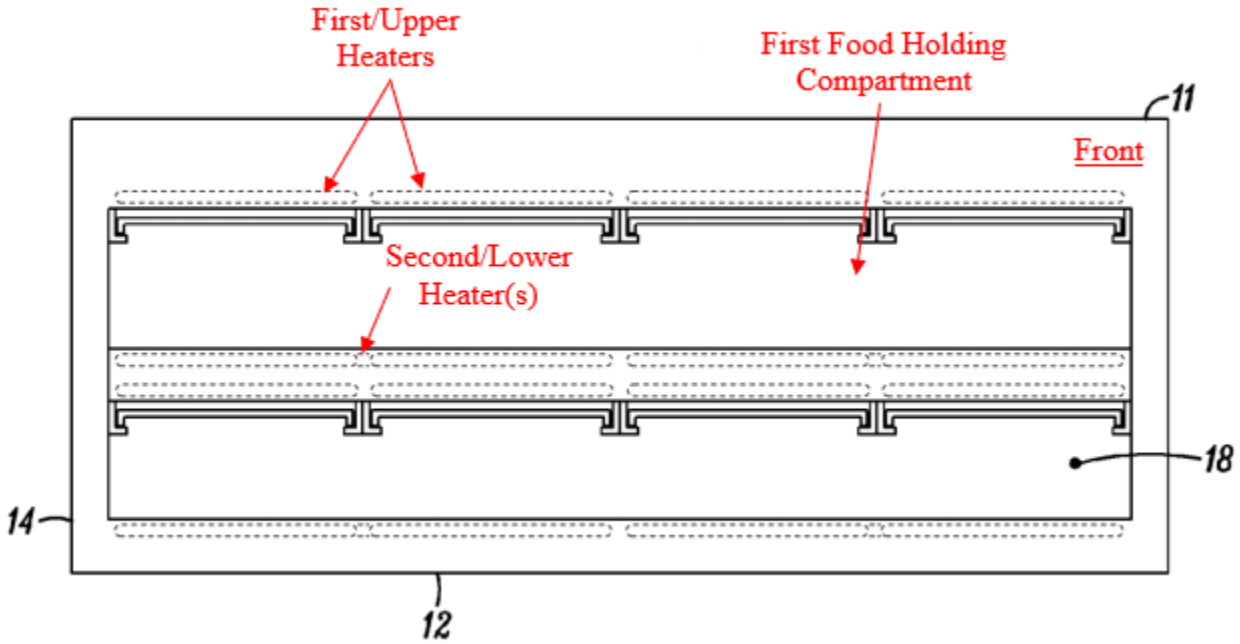

EX1010: Figs. 2, 6 (modified).

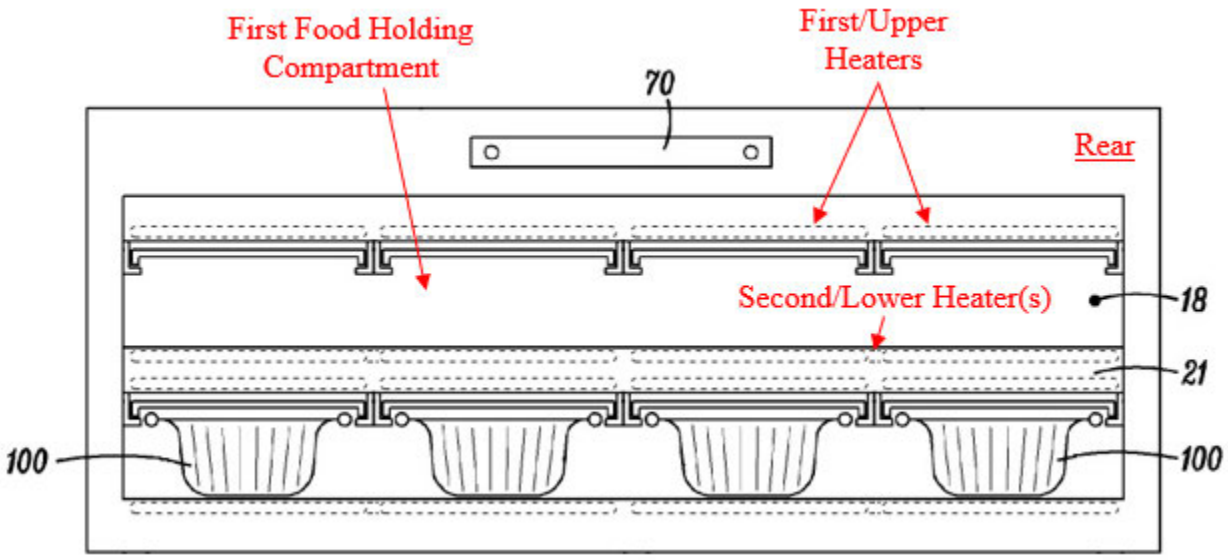
## I. Claims 8/10/27

Fortmann'748 explains the heaters overlying the compartments transfer heat by radiation. EX1010: ¶¶[0019]-[0020]; EX1003: ¶¶836-838, 851-853. When modifying Fortmann'748's heaters, the POSA would follow Fortmann'748's

teachings by arranging the upper heaters to heat the top panel/shelf (including by radiation) to heat pans below by radiation. EX1010: ¶¶[0019]-[0020]; EX1003: ¶¶839, 854, 931-933. The pans/food spaced below the upper heaters and underside of the top panel/shelf would be heated by radiation, and the first/upper heaters would be radiant heating sources. EX1003: ¶840.

Fortmann'748 explains heaters contact the upper sheet forming the planar surface supporting pans to heat the pans by conduction. EX1010: ¶¶[0019]-[0020]; EX1003: ¶841. When modifying Fortmann'748's heaters, the POSA would follow Fortmann'748's teachings by arranging the second/lower heaters to contact the sheet forming the planar surfaces supporting pans to heat the planar surfaces and pans by conduction. EX1010: ¶¶[0019]-[0020]; EX1003: ¶¶842, 854-855, 933.






EX1010: Figs. 2, 6 (modified).

### J. Claim 9/28.a

Fortmann'748's top panel (11) and each shelf include a lid resting/sliding on tracks (48) (lid holding shelves) above the planar surfaces for pans/trays. EX1010: ¶¶[0017]-[0018]; EX1003: ¶¶843-847.

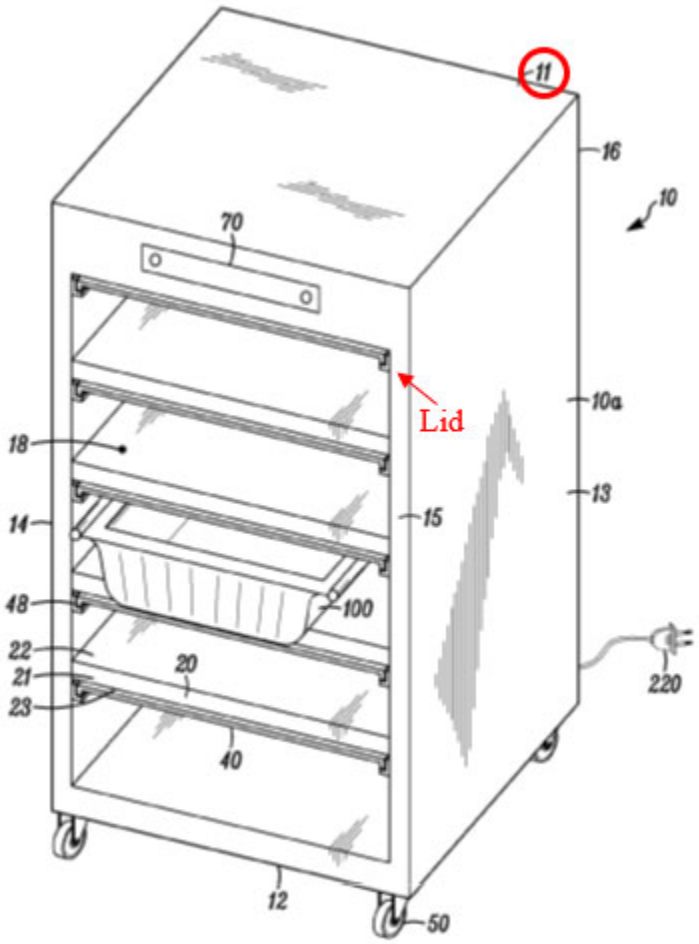



FIG. 1

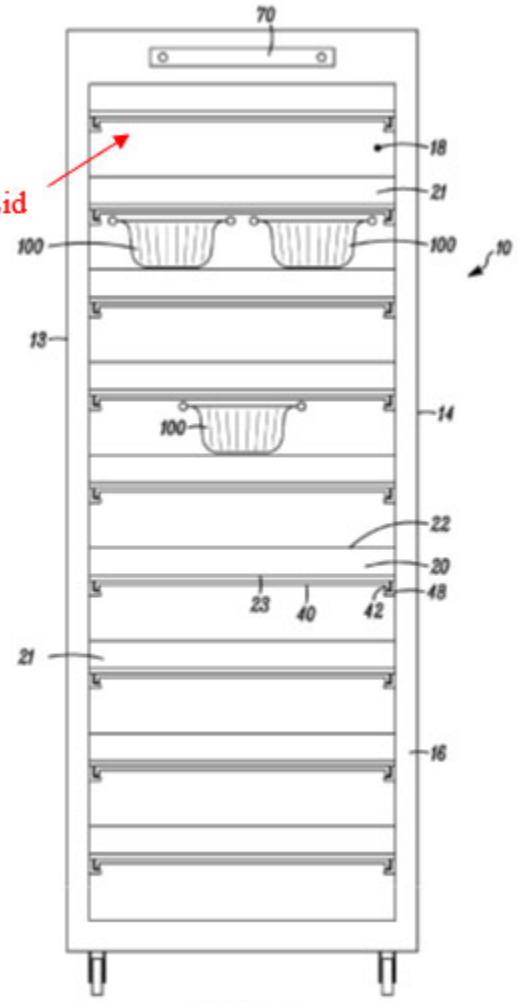



FIG. 6

EX1010: Figs. 1, 6.

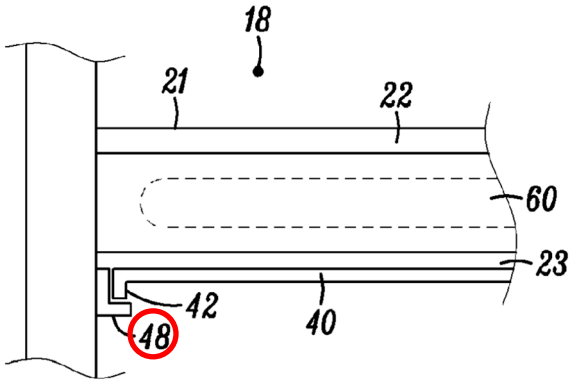
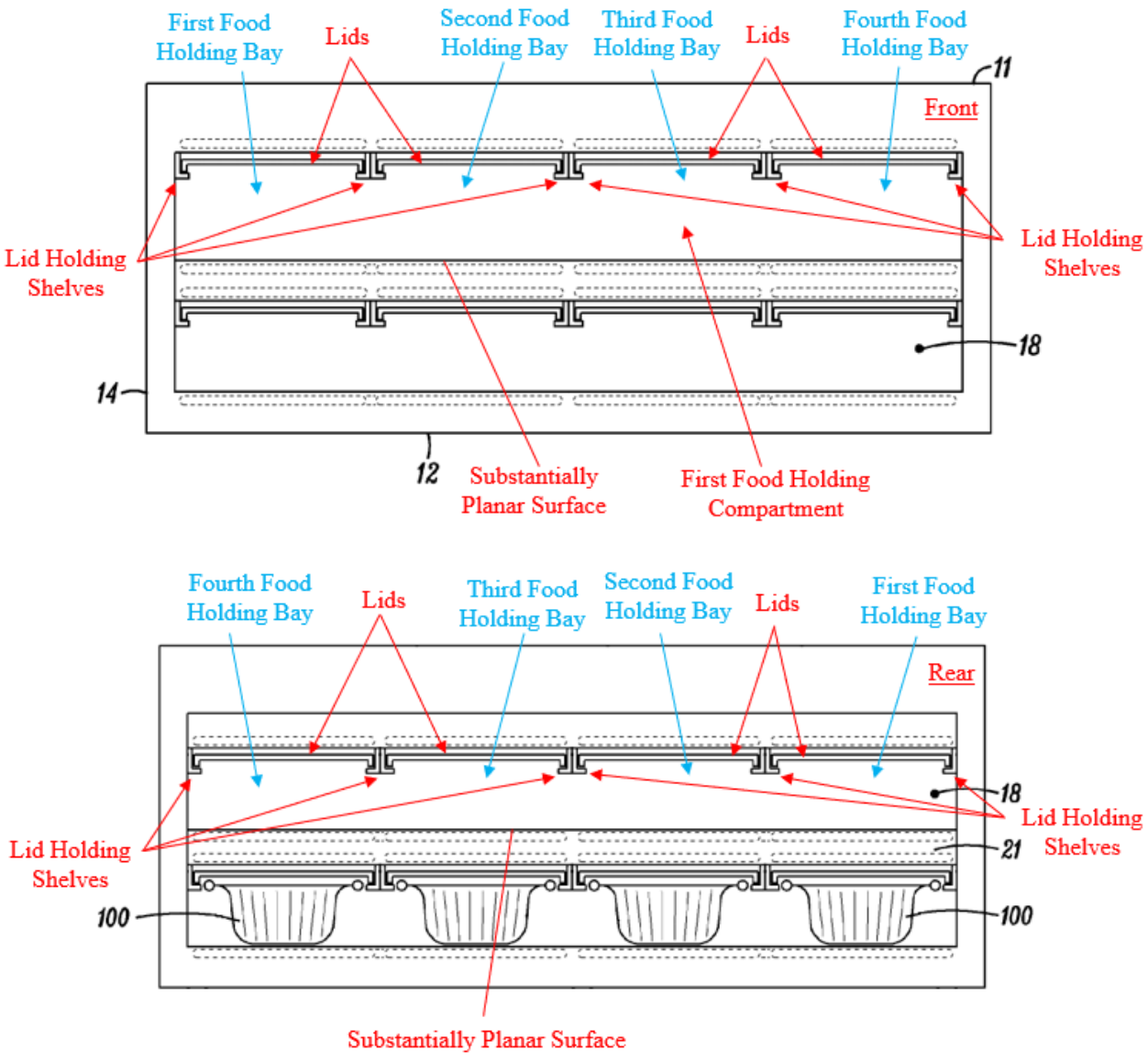



FIG. 3

EX1010: Fig. 3.

Per Sections XII(A)(7) and XII(D), it would have been obvious for each bay to have dedicated tracks (lid holding shelves) above the planar bottom surface in the compartment for receiving and storing associated lids. EX1003: ¶¶848-850, 934-936.




EX1010: Figs. 2, 6 (modified).

### K. Claim 12

The pans (100) rest on the planar surface. EX1010: ¶¶[0015], [0017].

EX1003: ¶¶856-859.

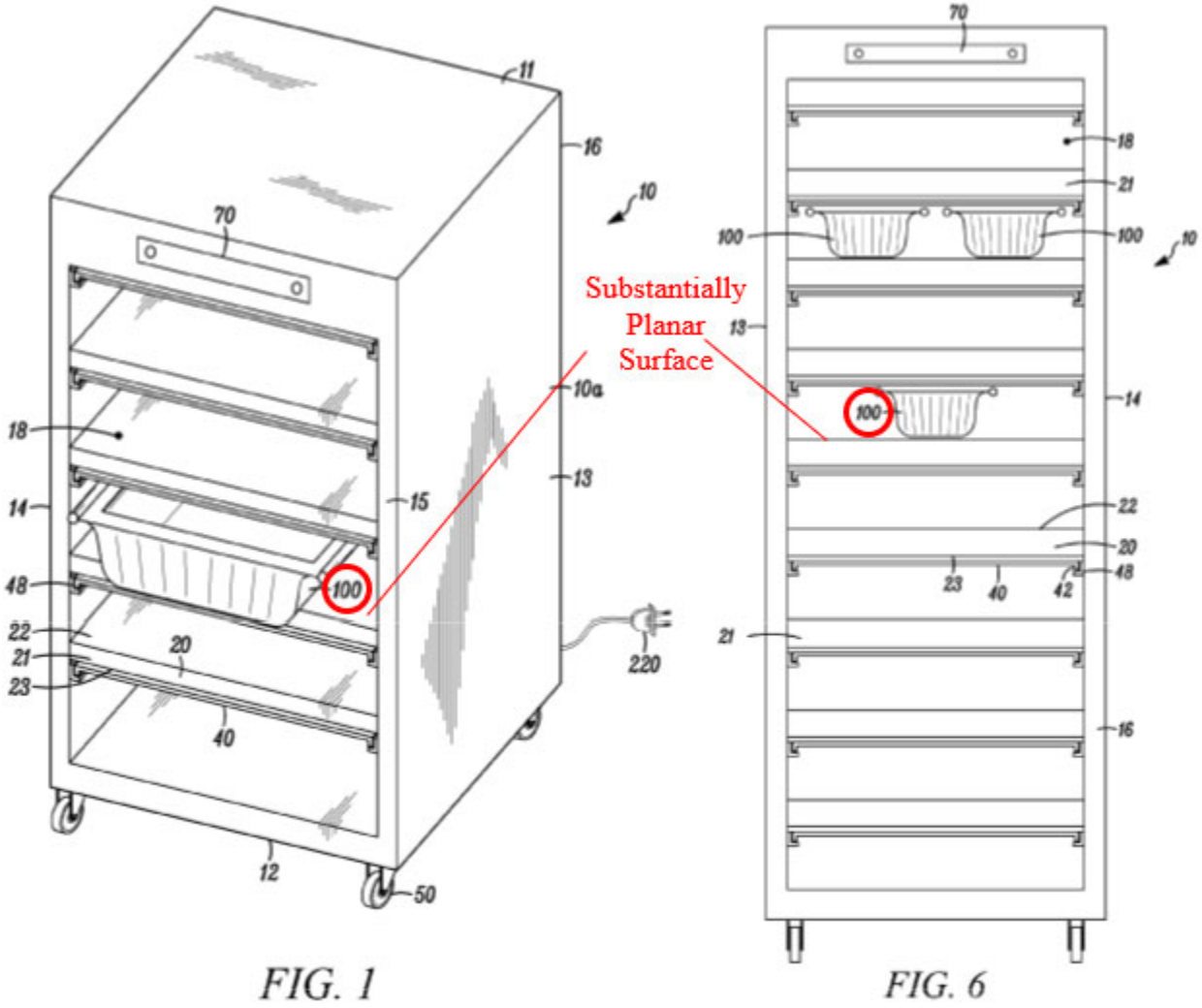
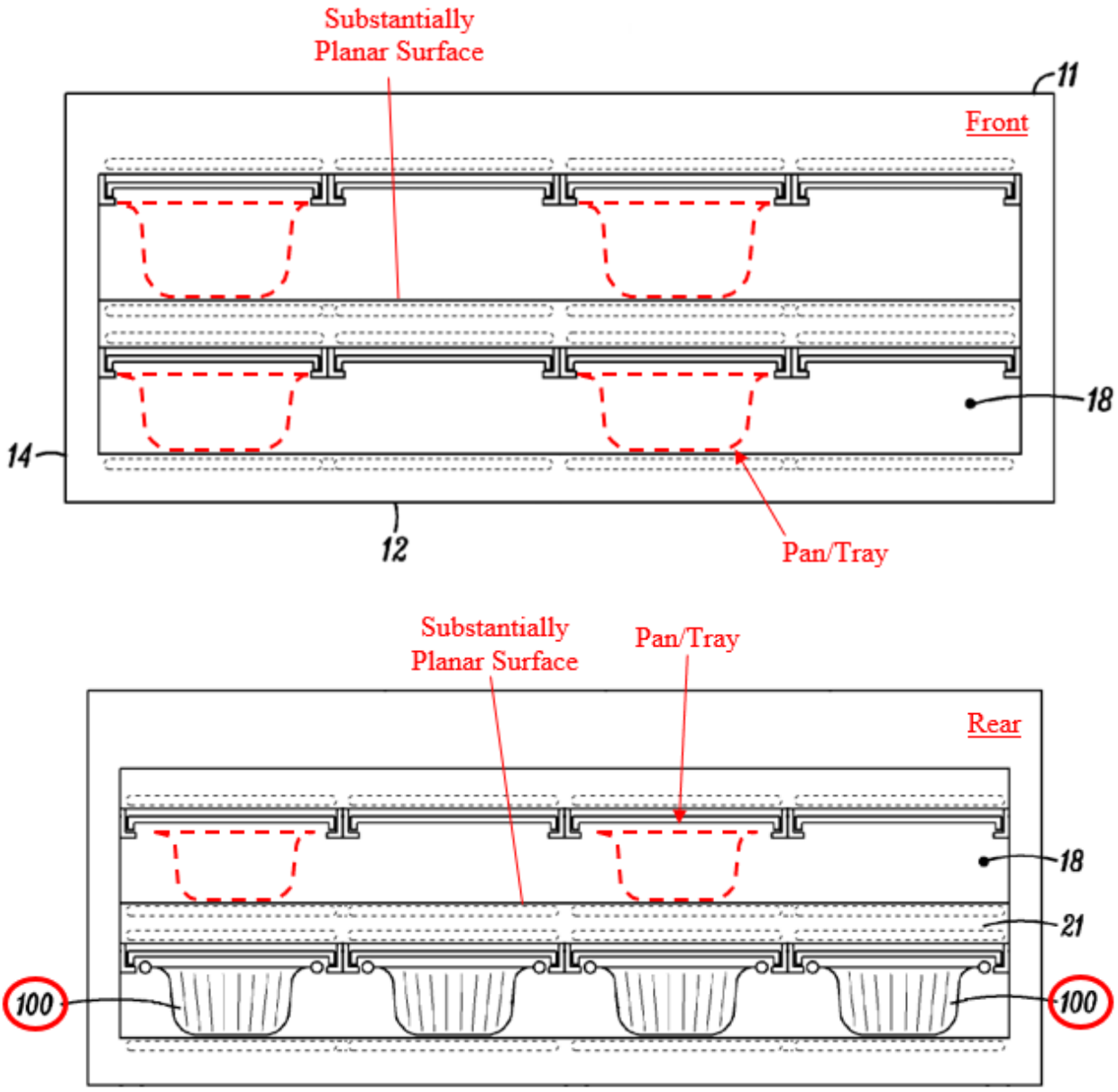



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.

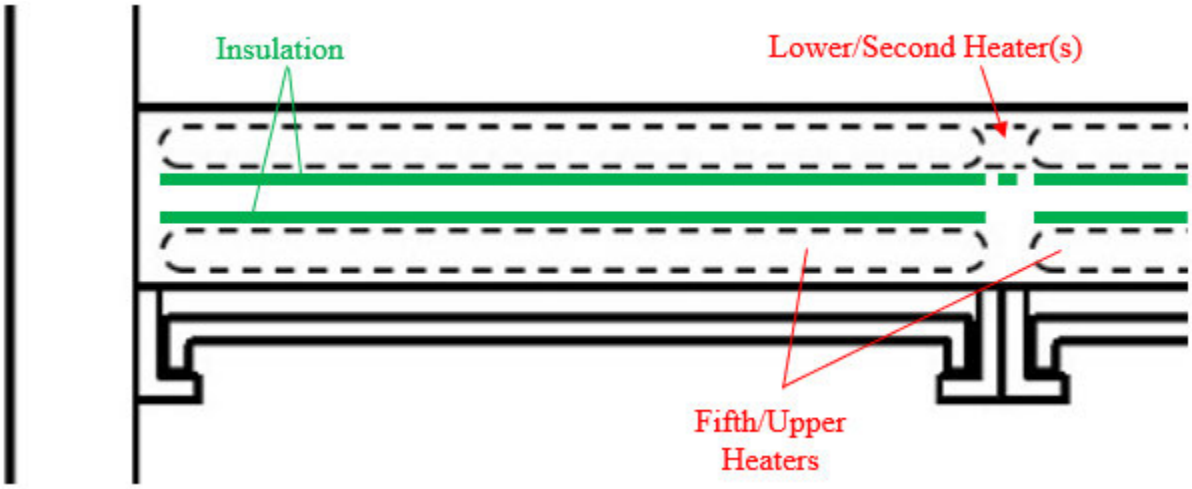



EX1010: Figs. 2, 6 (modified).

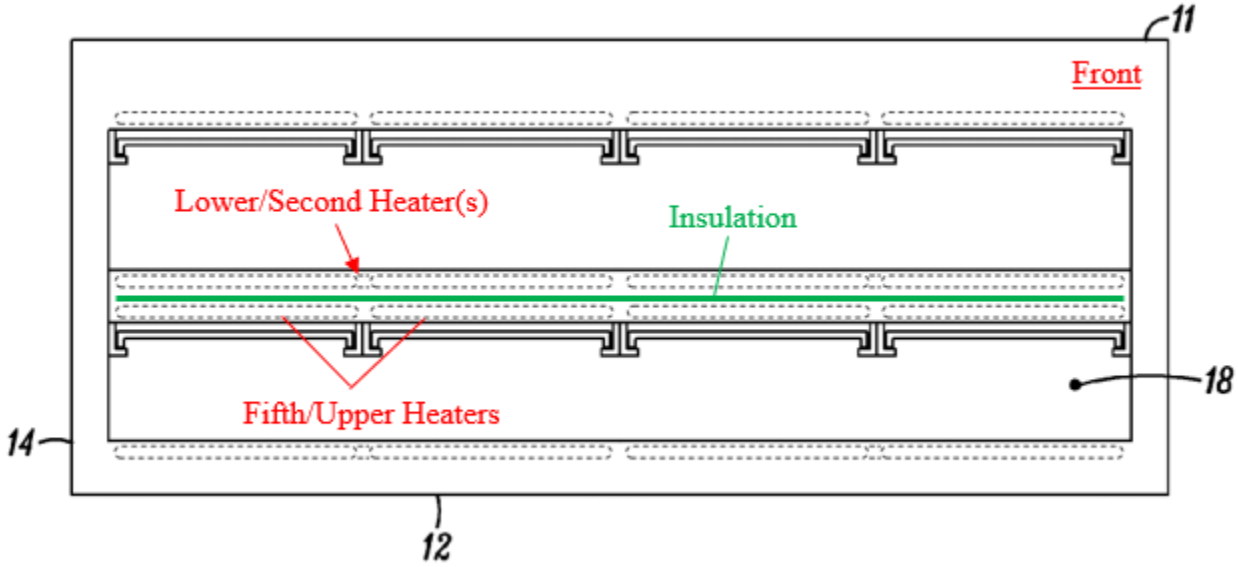
### L. Claim 22

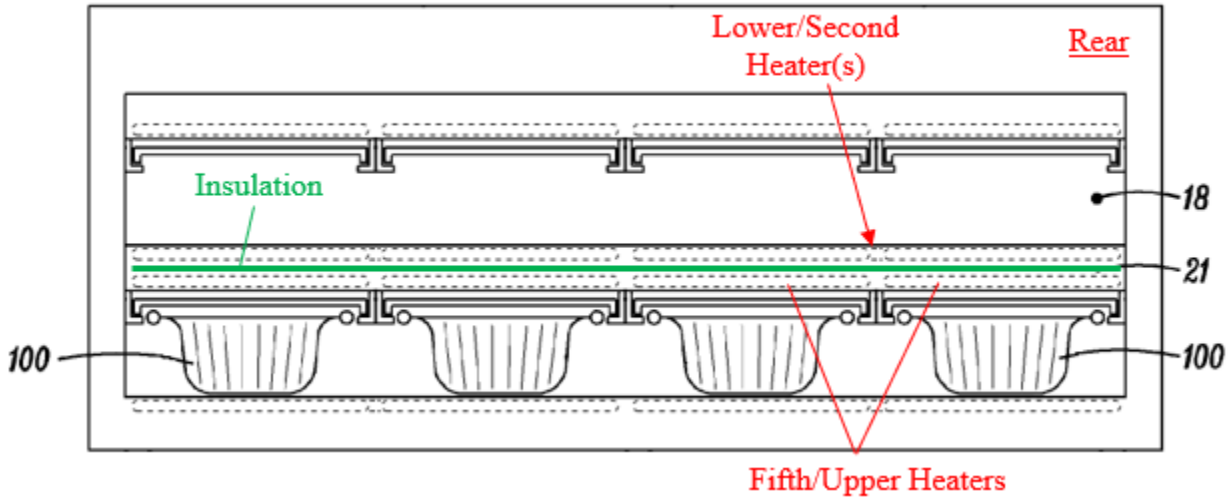
Fortmann'967 and Fortmann'197 disclose insulation such that including insulation between the second/lower heater(s) (for upper/first compartment) and the fifth/upper heaters (for lower/second compartment) would have been obvious

per Section XII(A)(9). EX1018: 3:64-65, 4:4-38, Fig. 2; EX1014: 9:32-37, Figs. 1, 10; EX1003: ¶¶910-917.

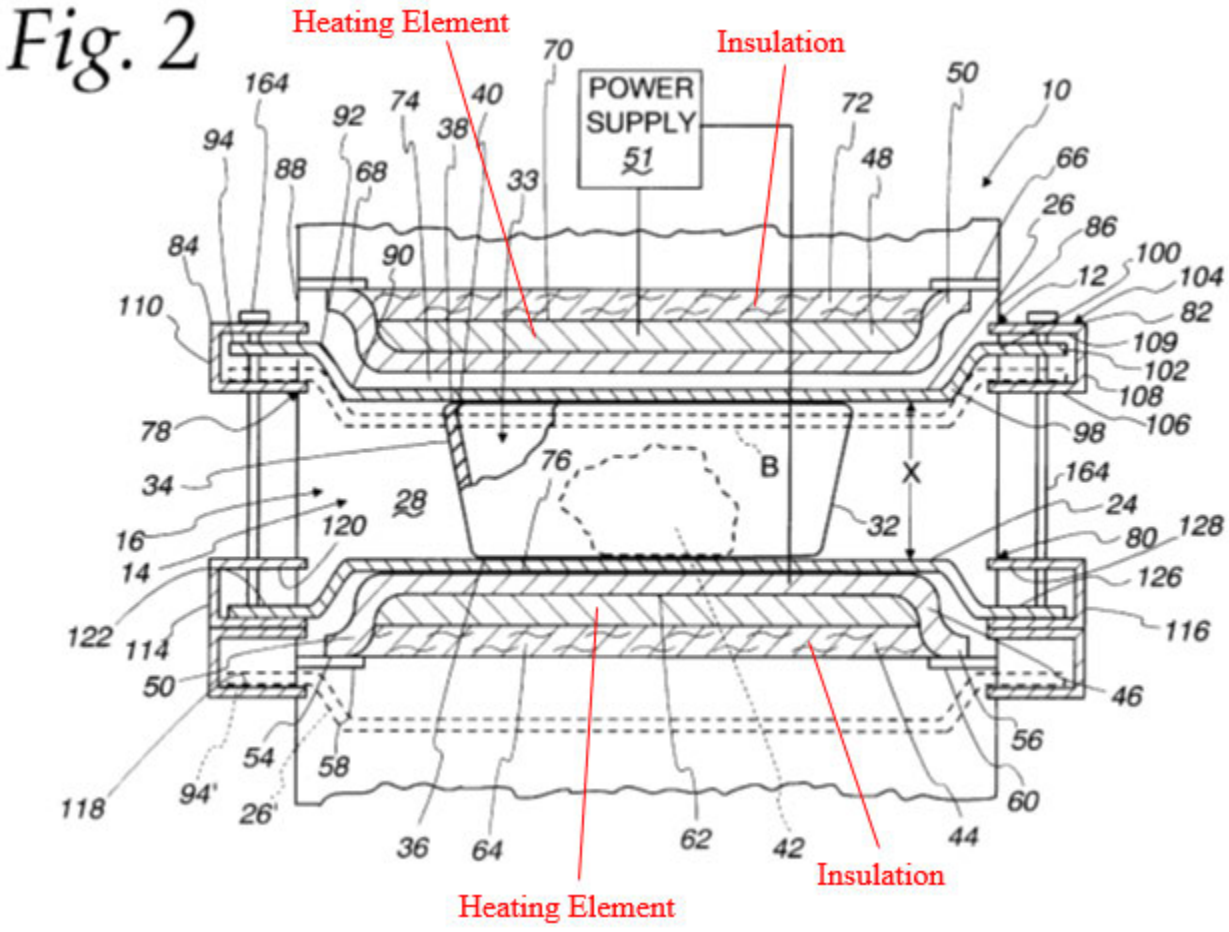



EX1010: Fig. 2 (modified, enlarged).





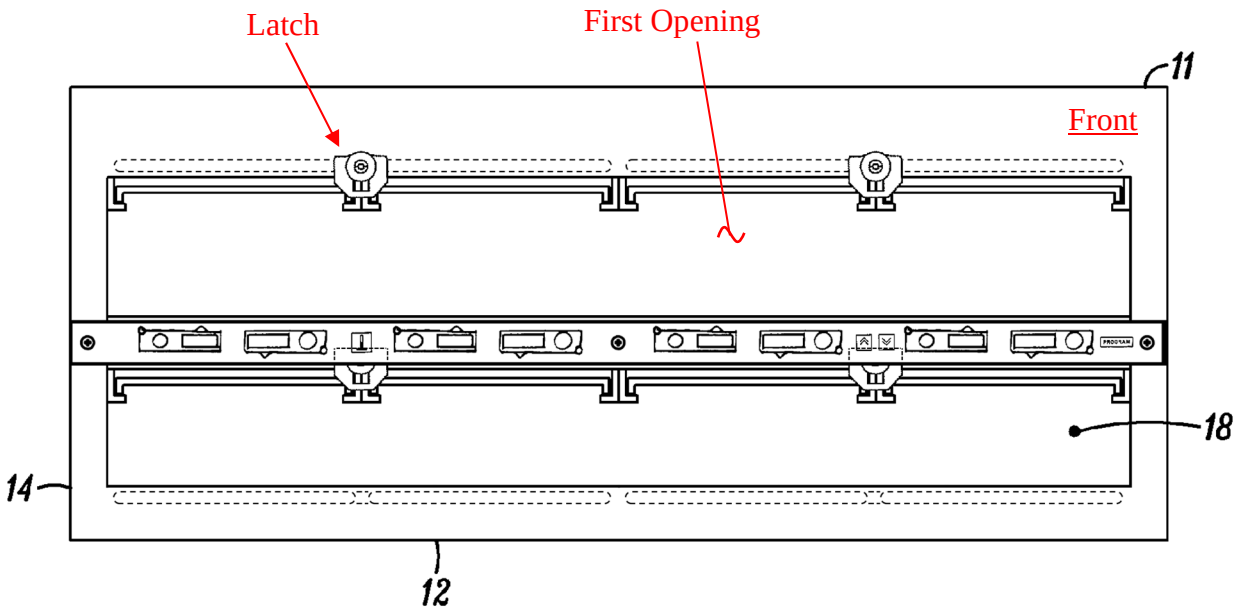

EX1010: Figs. 2, 6 (modified).




EX1018: Fig. 1.

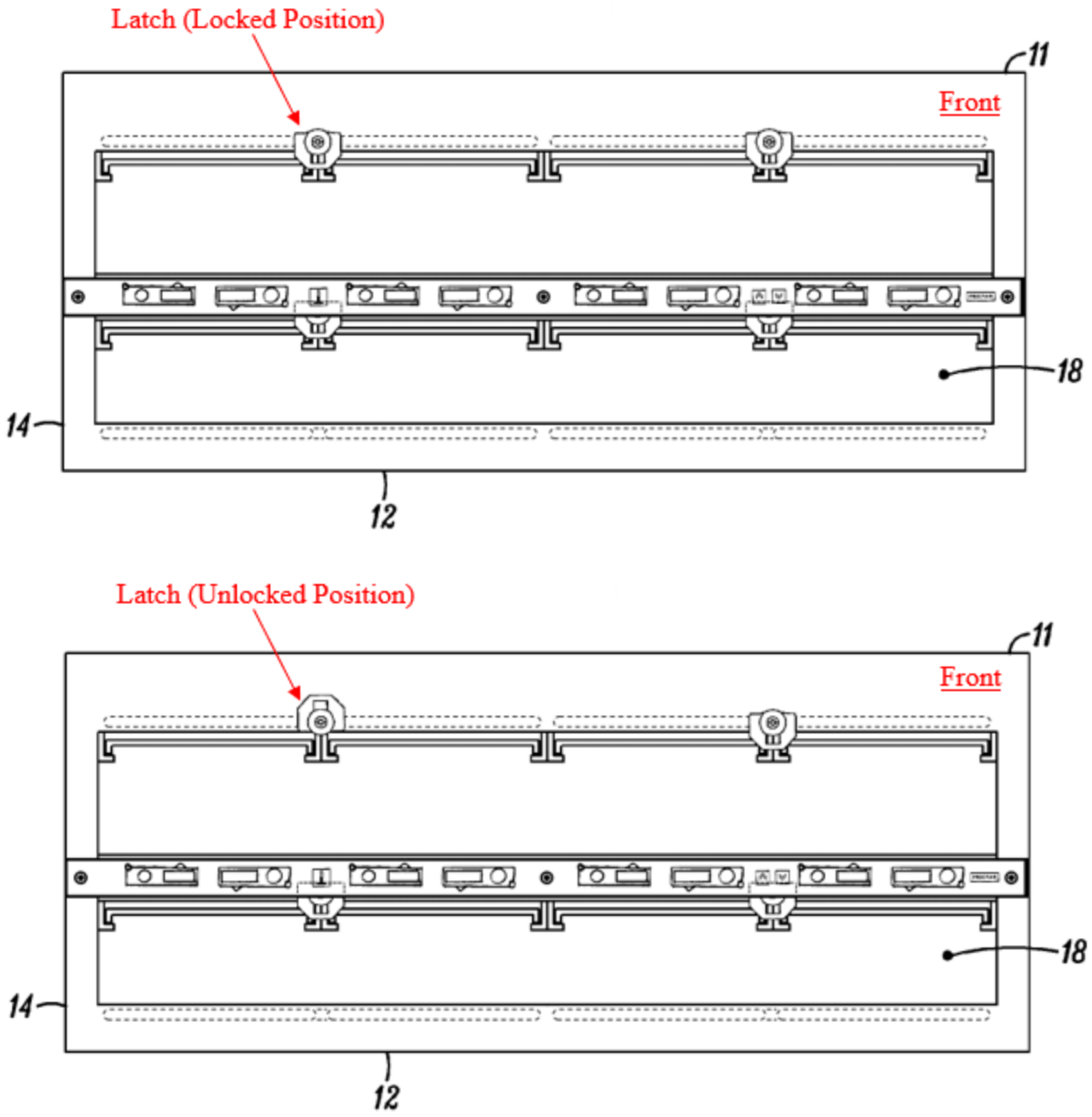
### M. Claim 24

Hartfelder and Shei'099 disclose rotatable latches (stops) such that it would have been obvious to modify Fortmann'748's cabinet to have rotatable latches adjacent the first opening per Section XII(A)(8). EX1013: ¶[0058]; EX1017: 6:9-32; EX1003: ¶¶923-925.




EX1010: Fig. 2 (modified).

The latches rotate between locked/first and unlocked/second positions. EX1013: Fig. 9; EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; Section XII(D); EX1003: ¶¶926-927.



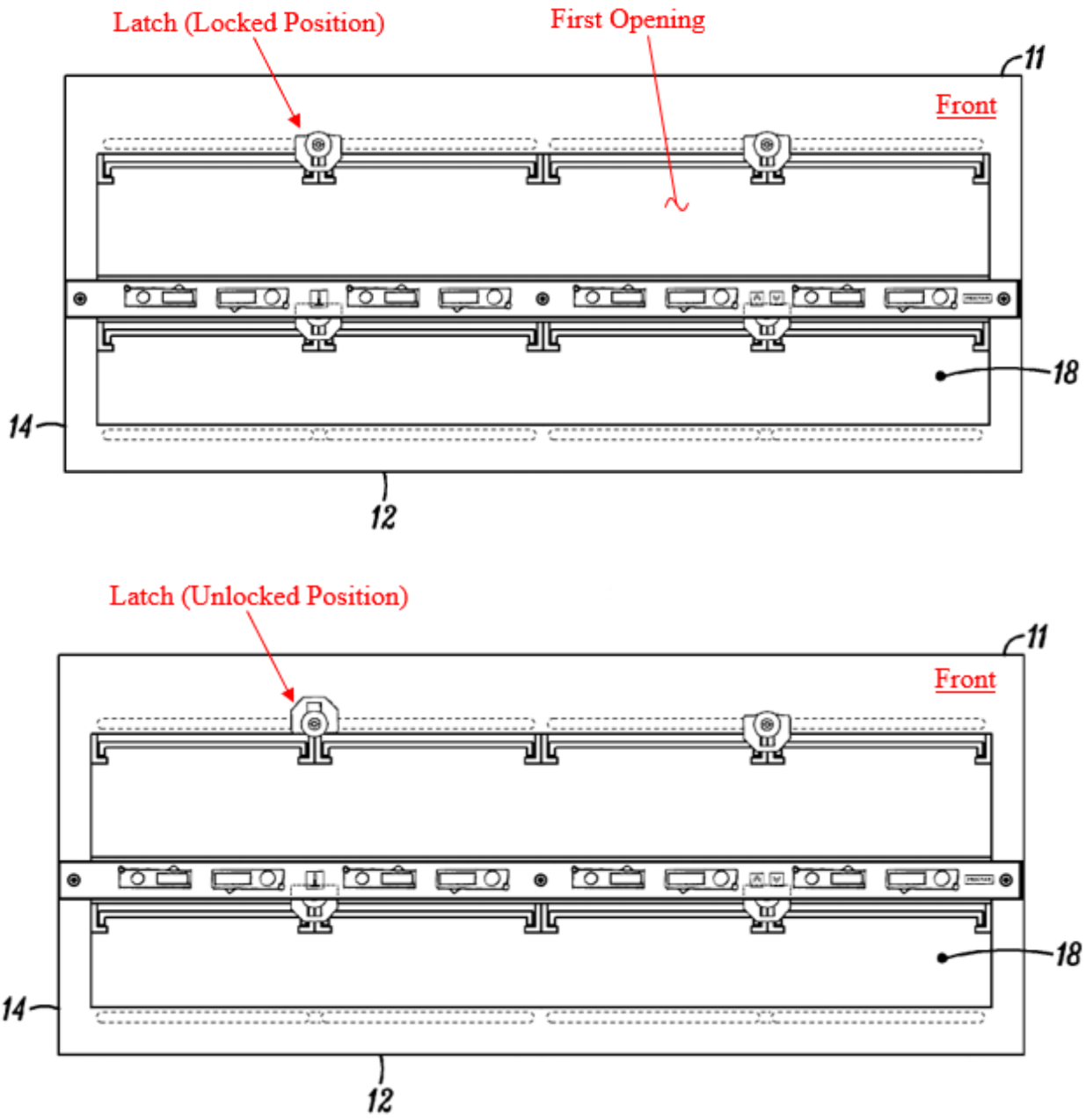

EX1010: Fig. 2 (modified).

**N. 28.b.1-28.b.2**

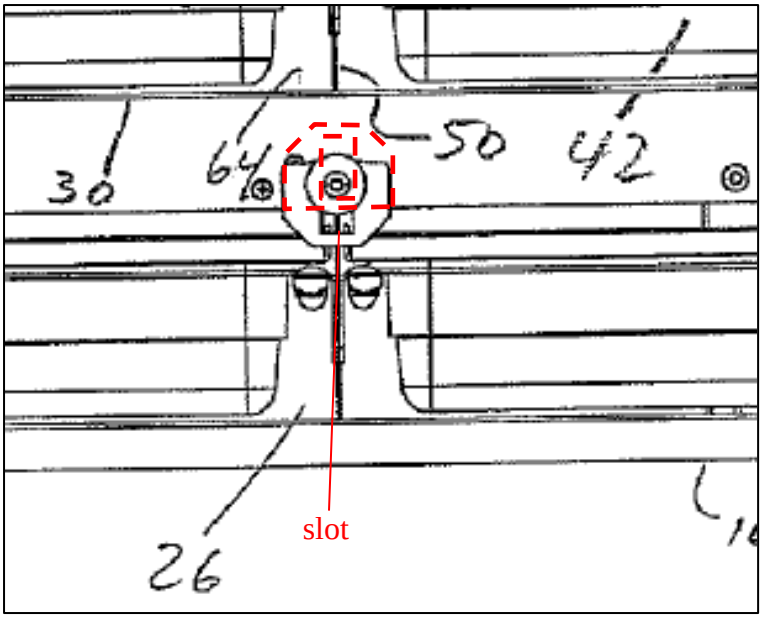
**28.b.1**

Met as explained in Sections XII(D) and XII(M). EX1003: ¶¶937. The latch would rotate between locked (preventing lid removal) and unlocked

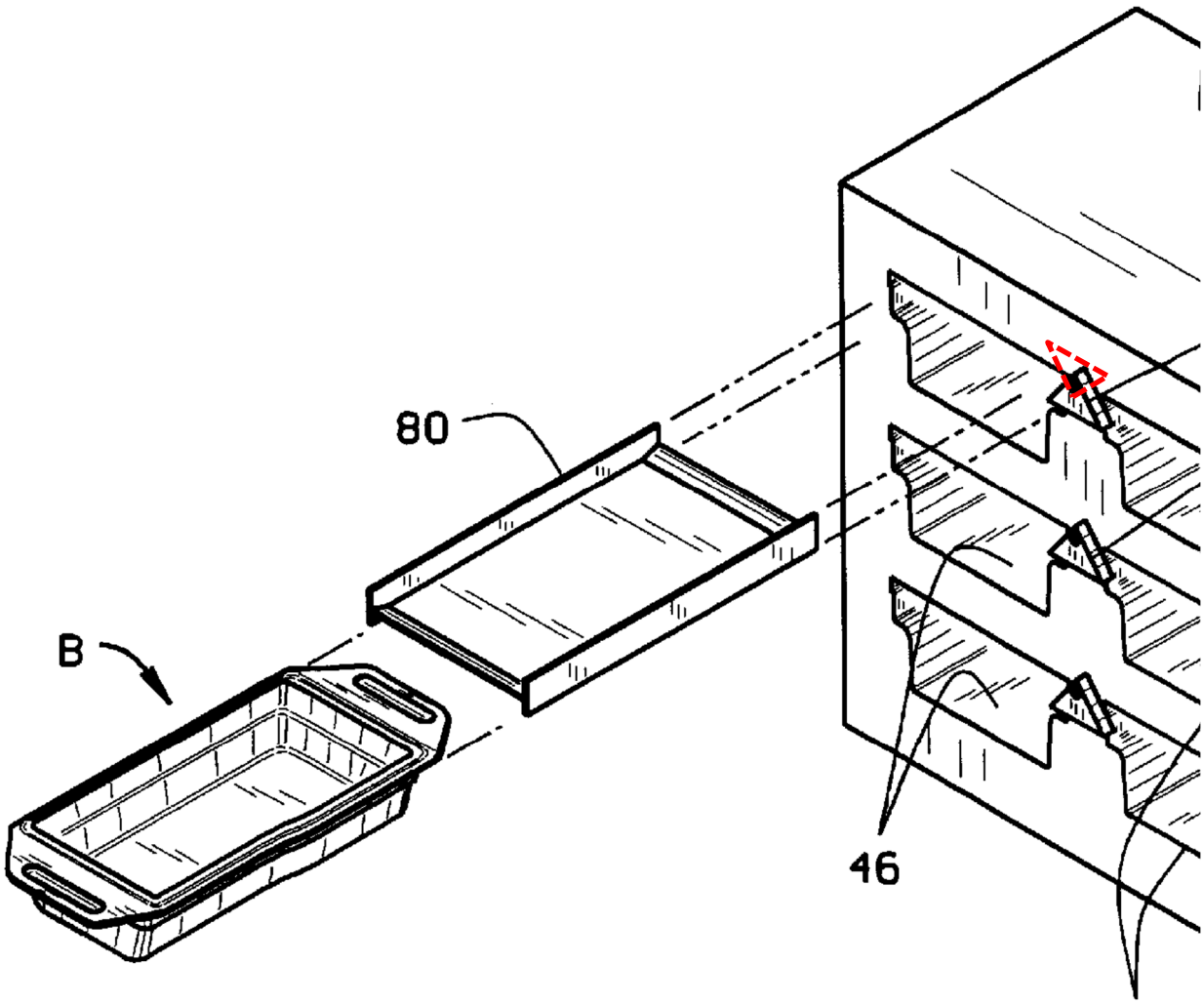
(allowing lid removal) positions. EX1013: ¶[0058]; EX1017: 6:9-32; EX1016: ¶[0043], Fig. 1; EX1003: ¶¶938-939.




EX1010: Fig. 2 (modified).



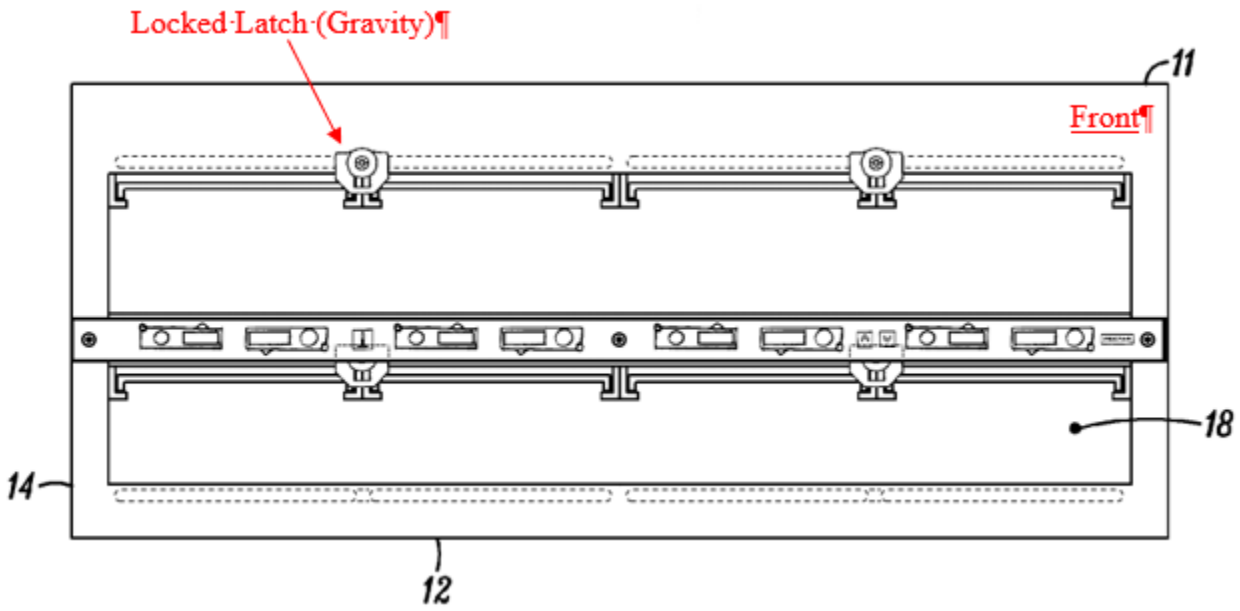

EX1013: Fig. 2 (enlarged).



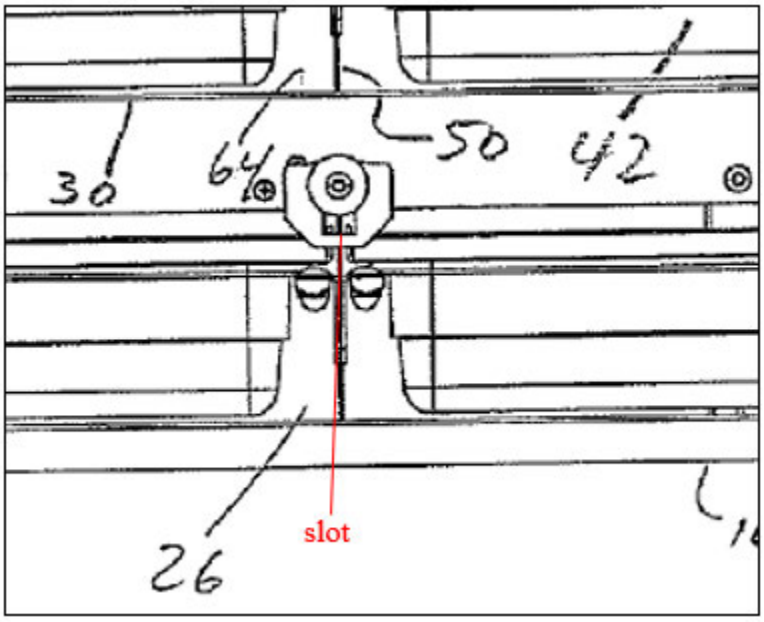

EX1017: Fig. 1 (enlarged).

**28.b.2**

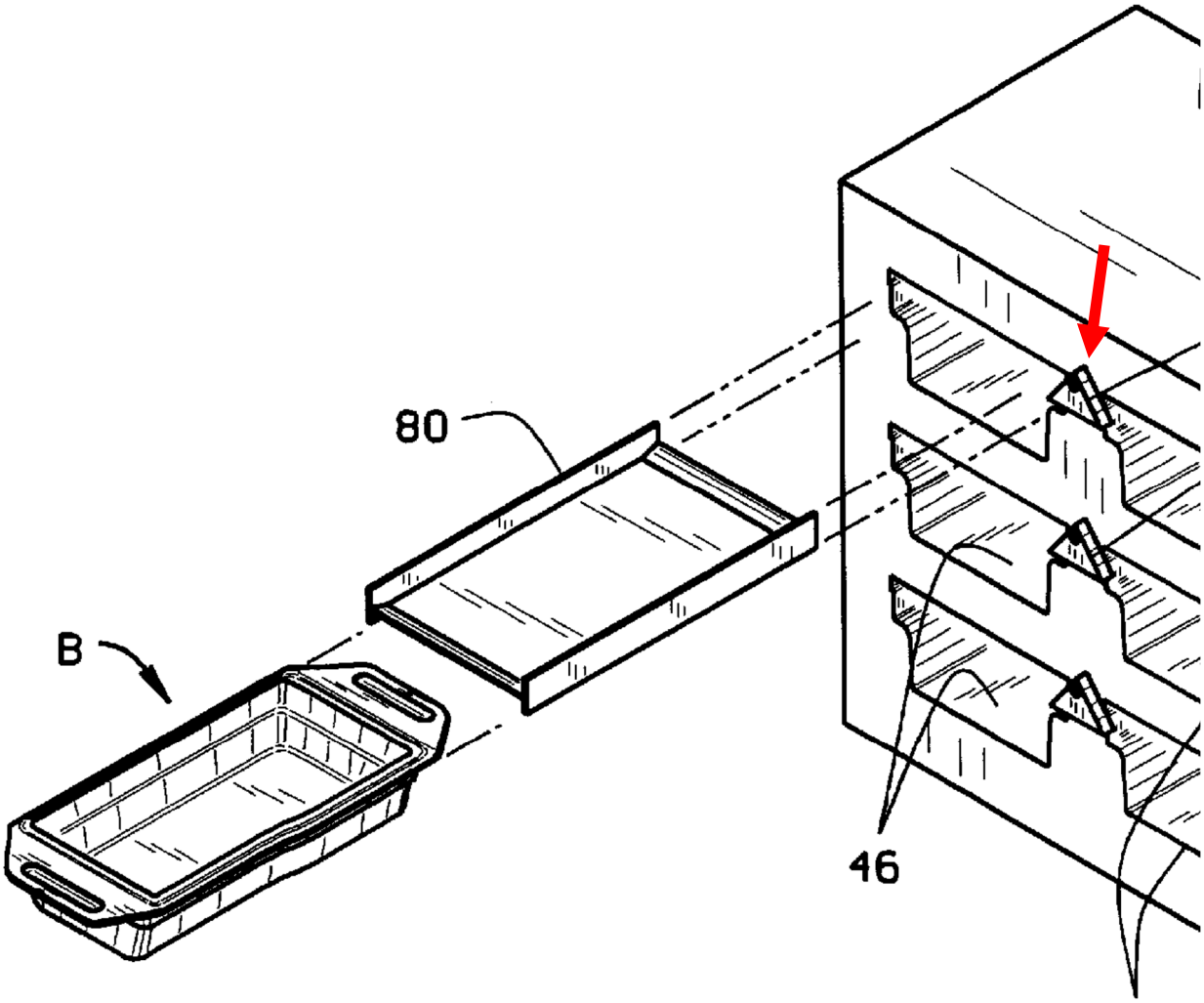
Gravity would bias the rotatable latch to the locked position (latch's center of gravity below the fastener). EX1013: Fig. 9; EX1017: 6:9-32, Fig. 1; EX1016: ¶[0043], Fig. 1; Section XII(A)(8); EX1003: ¶¶940-942.




EX1010: Fig. 2 (modified).




EX1013: Fig. 2 (enlarged).




EX1017: Fig. 1 (enlarged).

## XIII. GROUND 10: Claims 6, 11, and 25 Would Have Been Obvious Over Fortmann'748 in view of IRHS Documents, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099, Veltrop, and/or Shei'155

### A. Claims 6/25

Fortmann'748's heaters (60) are in "electrical communication" with the control system. EX1010: ¶[0004]; EX1003: ¶¶943-944.

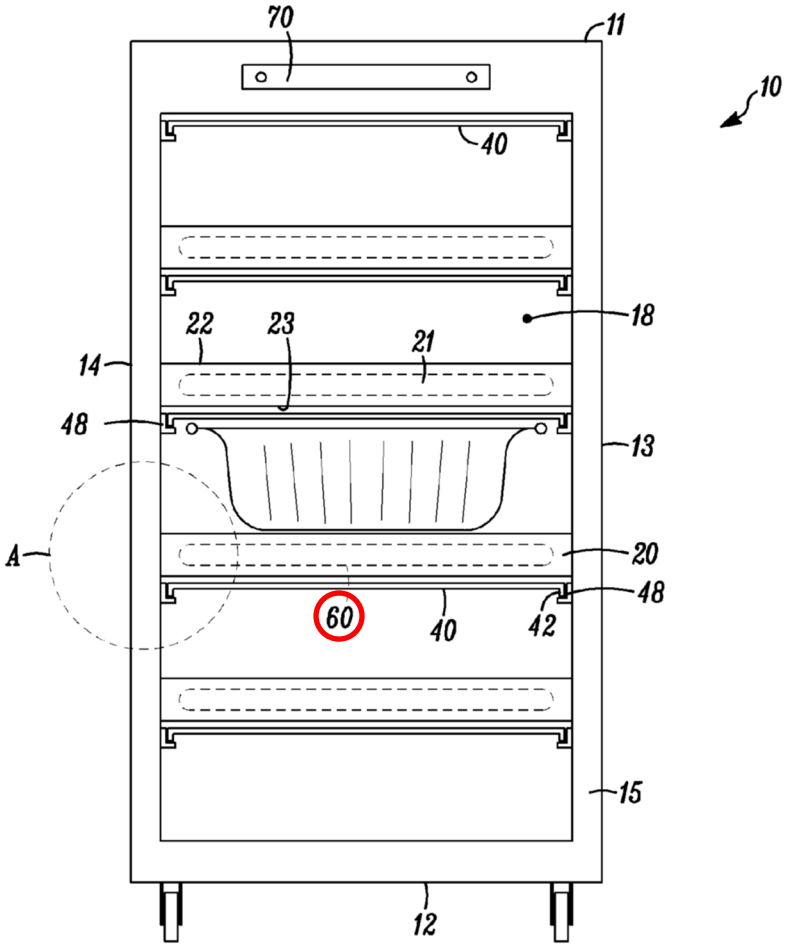



FIG. 2

EX1010: Fig. 2.

Fortmann'748 does not describe how its heaters generate heat but Veltrop teaches electrically-resistive heater wires (67). EX1022: ¶¶[0010], [0025]; EX1003: ¶¶945-946.

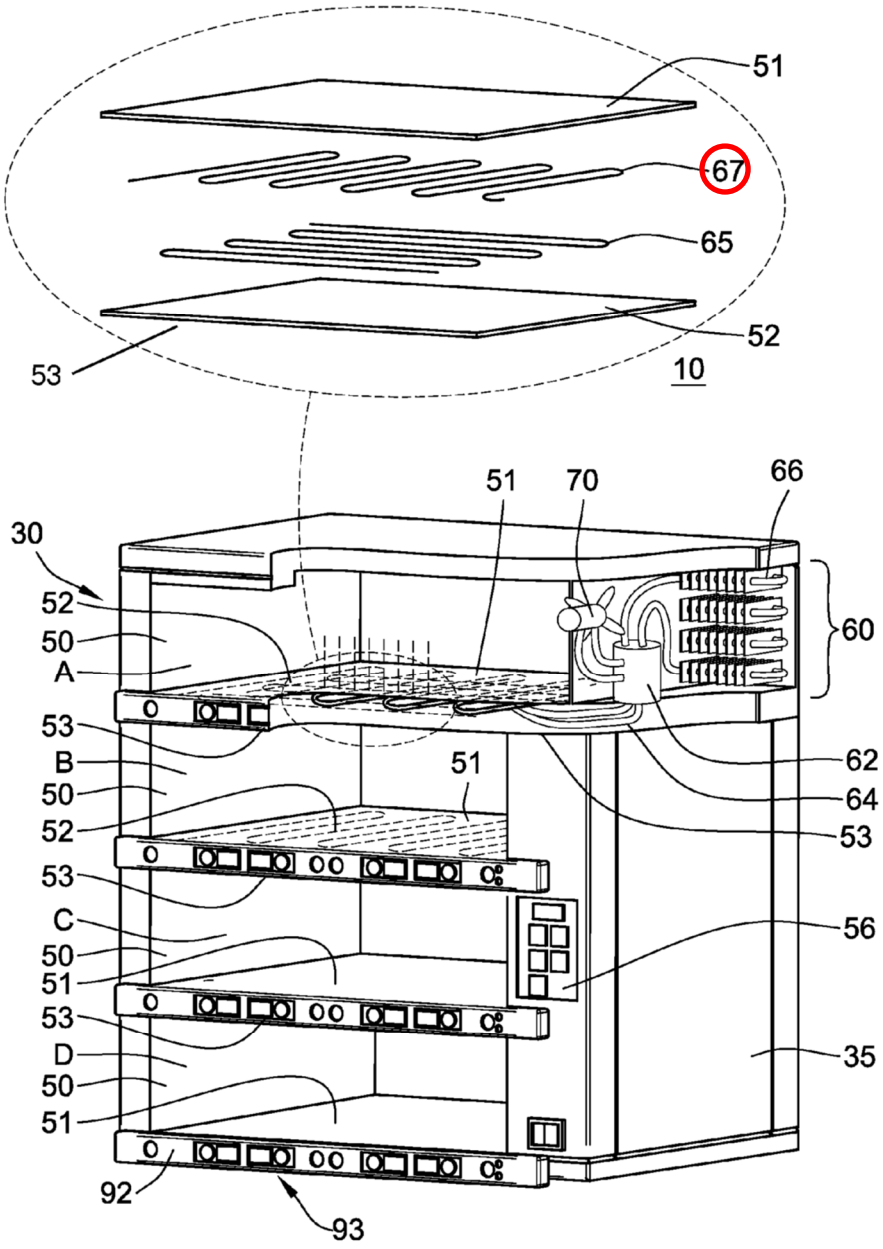



**FIG. 2**

EX1022: Fig. 2.

In view of Veltrop, it would have been obvious for Fortmann'748's heaters (the first/upper and second/lower heaters) to comprise an electrically-resistive

heater wire to generate heat. EX1003: ¶947. The POSA would understand Veltrop's electrically-resistive wire is a suitable heat source for Fortmann'748's heaters. EX1022: ¶[0025]; EX1003: ¶948.

This would have been using a known technique (Veltrop's electrically-resistive heater wire) to improve a similar device (Fortmann'748's heaters) in the same way (electrically-resistive heater wire to heat compartment/food) with reasonable expectation of success (electrically controlled and demonstrated suitability). EX1003: ¶¶949-951.

This renders obvious the first/upper and second/lower heaters comprising electrically-resistive wire. EX1003: ¶¶952-953, 968-970.

**B. Claim 11**

The planar surfaces (22) of Fortmann'748's shelf (21) and bottom panel (12) are stainless steel. EX1010: ¶[0019]; EX1003: ¶¶954-955.

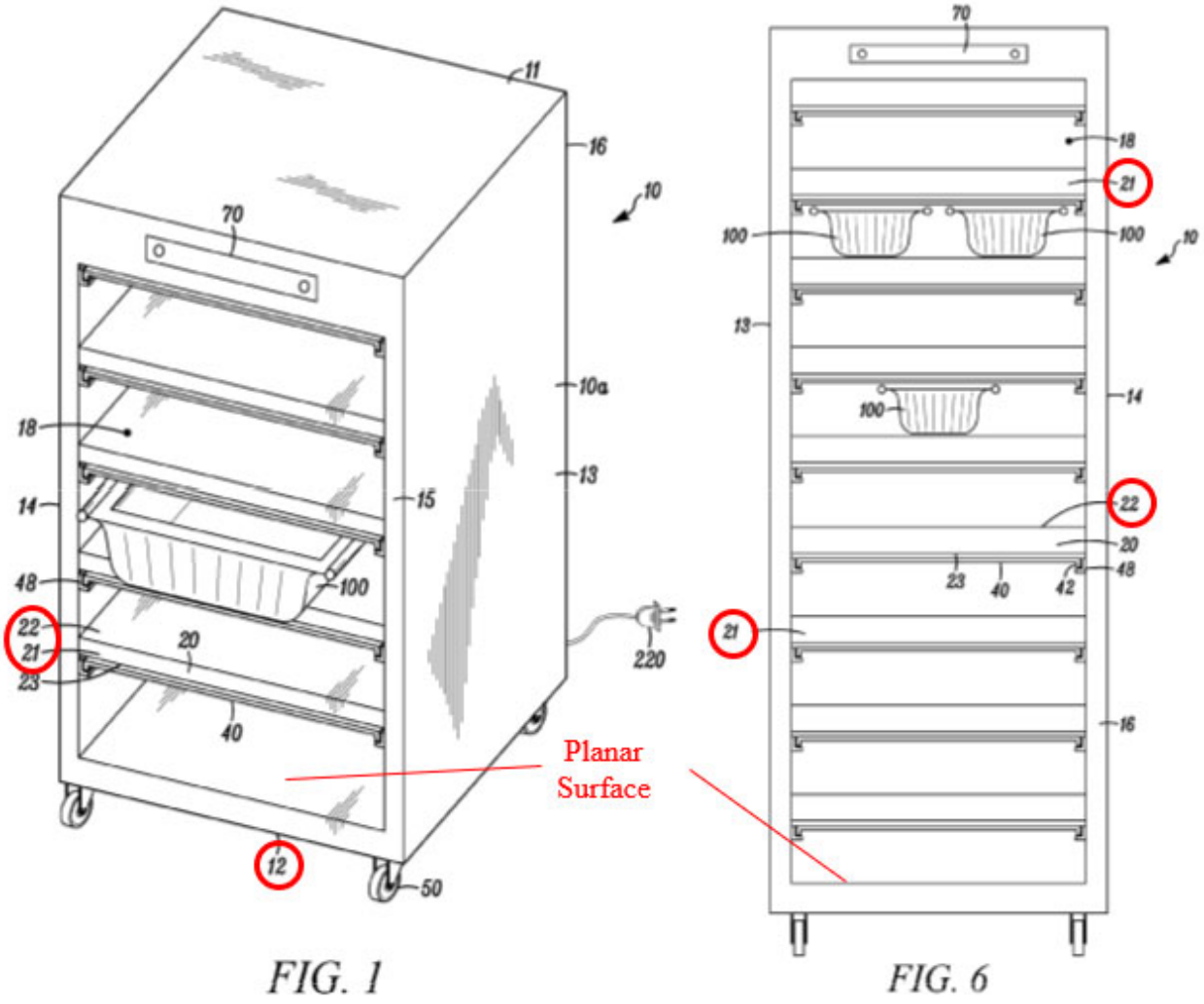



FIG. 1 FIG. 6

EX1010: Figs. 1, 6.

Veltrop's shelves' (52) upper plates (51) are aluminum. EX1022: ¶[0023]; EX1003: ¶¶956-957.

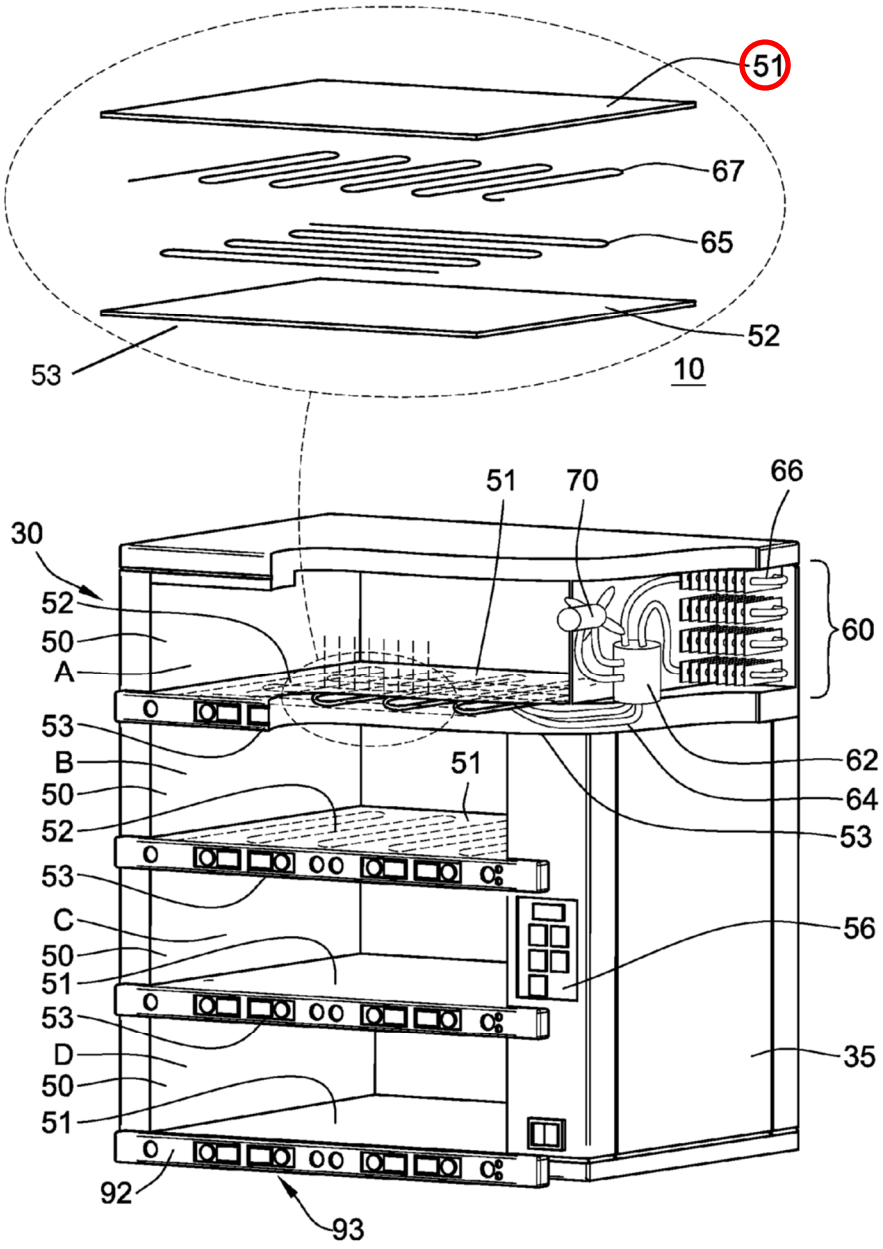
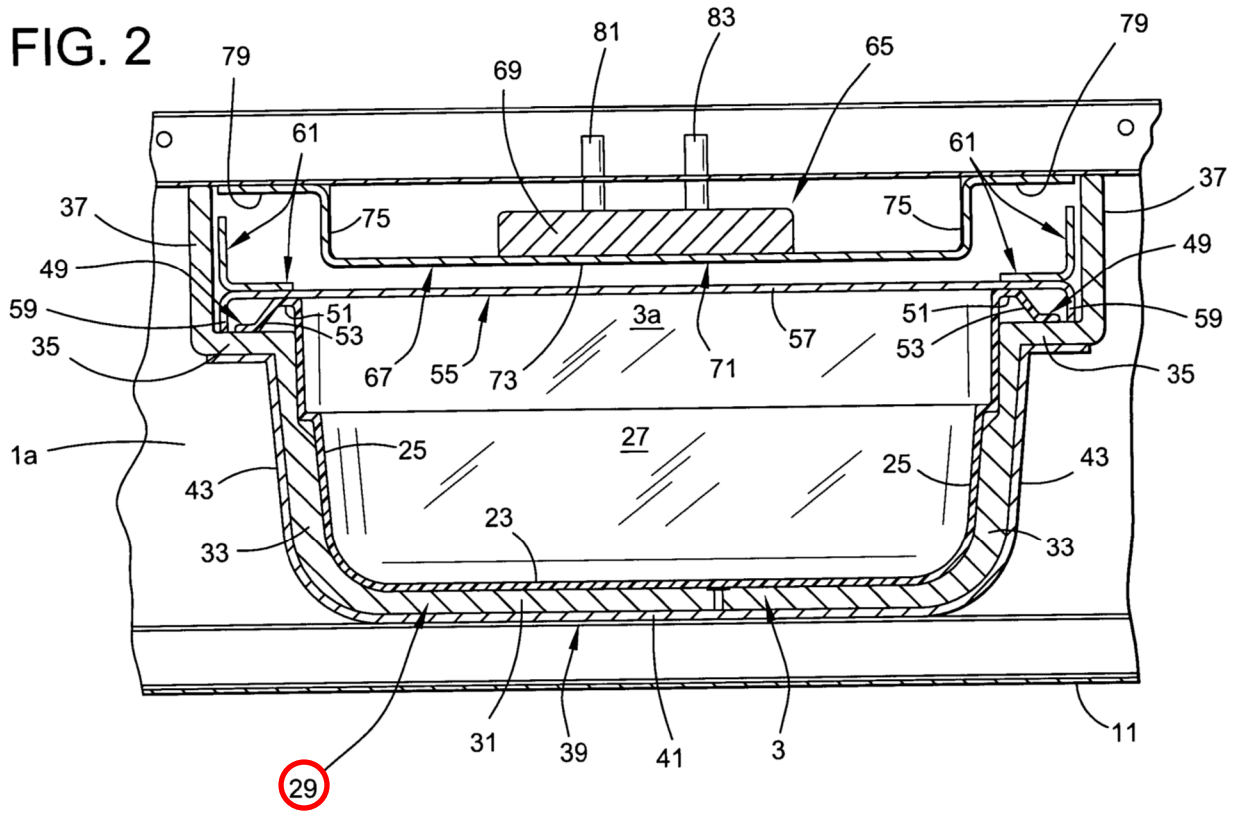



**FIG. 2**

EX1022: Fig. 2.

Shei'155's heatsink (29) is aluminum. EX1016: ¶[0039]; EX1003: ¶958.



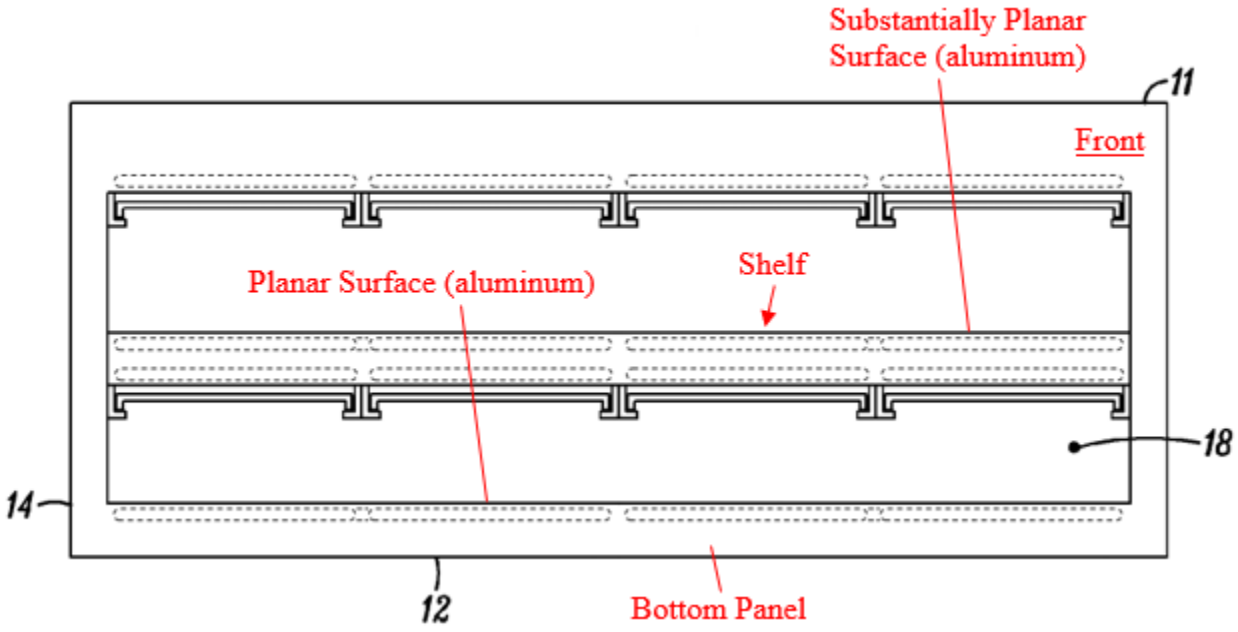

EX1016: Fig. 2.

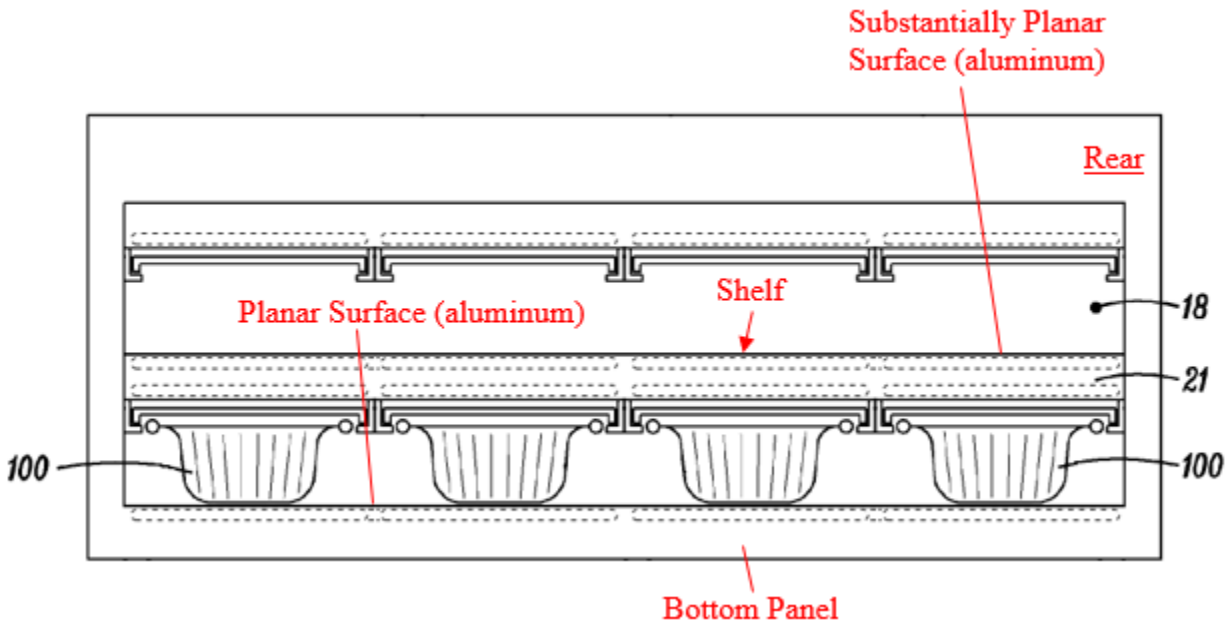
In view of Veltrop and/or Shei'155, it would have been obvious to make the upper plates of Fortmann'748's shelf and bottom panel from aluminum as a preferred material that "conducts heat well." EX1017: 3:32-33; EX1022: ¶[0023]; EX1020: ¶¶[0021]-[0023]; EX1021: ¶¶[0020]-[0022]; EX1003: ¶959. Further, aluminum is relatively lightweight (easier to ship) and inexpensive. EX1003: ¶960.

This would have been using a known technique (aluminum from Veltrop/Shei'155) to improve a similar device (Fortmann'748's cabinet) in the same way (aluminum surfaces supporting food pans for localized heating) with

reasonable expectation of success (known suitability of aluminum shelves having multiple zones in warming cabinets). EX1006: 1; EX1007: 53; EX1016: ¶[0039]; EX1020: ¶[0021]; EX1021: ¶[0020]; EX1022: ¶[0023]; EX1003: ¶¶961-962, 965-966.

This renders obvious the upper plates of the shelf and bottom panel, and thus the planar surfaces, comprising aluminum. EX1003: ¶¶963-964, 967.






EX1010: Figs. 2, 6 (modified).

## XIV. GROUND 11: Claims 14-16, 18-20, and 29 Would Have Been Obvious Over Fortmann'748 in view of IRHS Documents, Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099, and/or Prince Castle

### A. Independent Claim 14

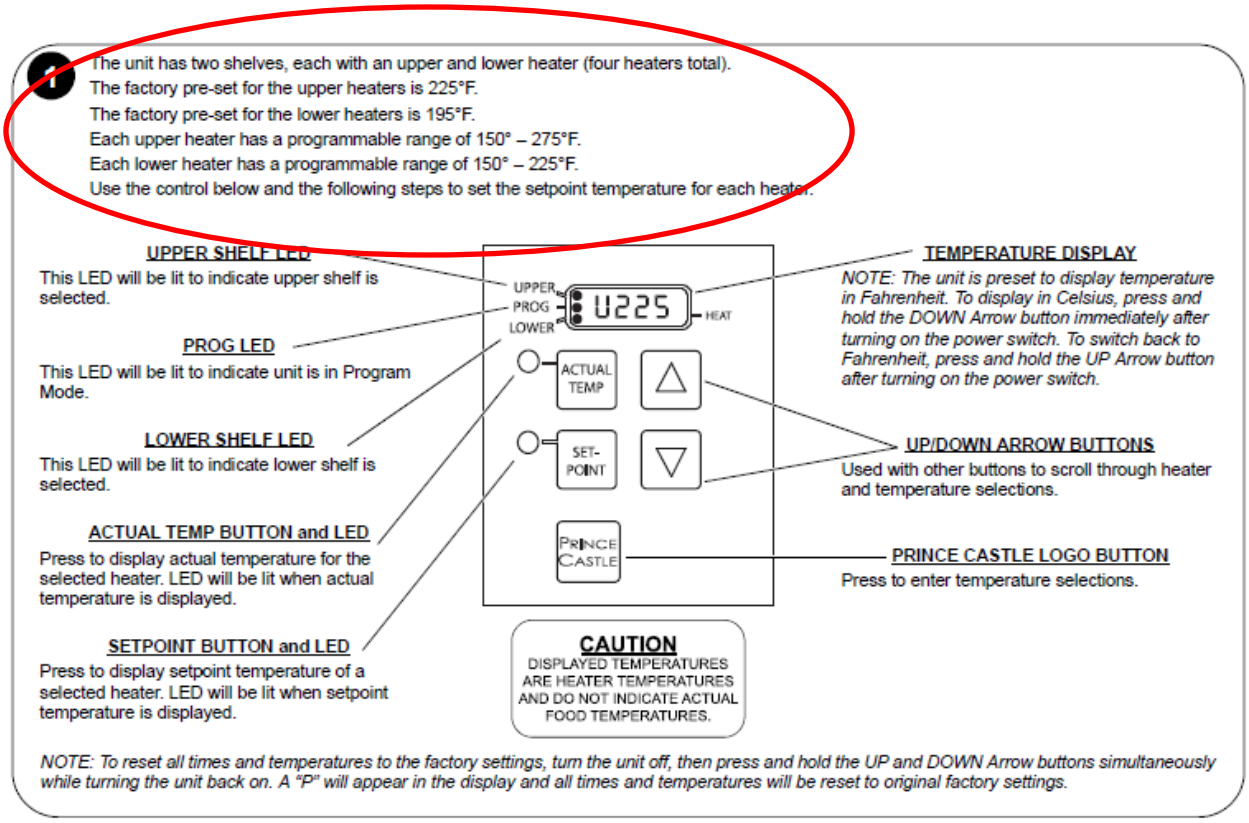
14.P-14.f.2 are met as explained in Sections XII(B)(1.P)-(1.f.2/13).

EX1003: ¶¶971-972.

**14.g**

Prince Castle teaches default presets 225°F for upper heaters (max setting 275°F) and 195°F for lower heaters (max setting 225°F). EX1009: 22, 40;

EX1003: ¶¶973-978.




EX1009: 40.

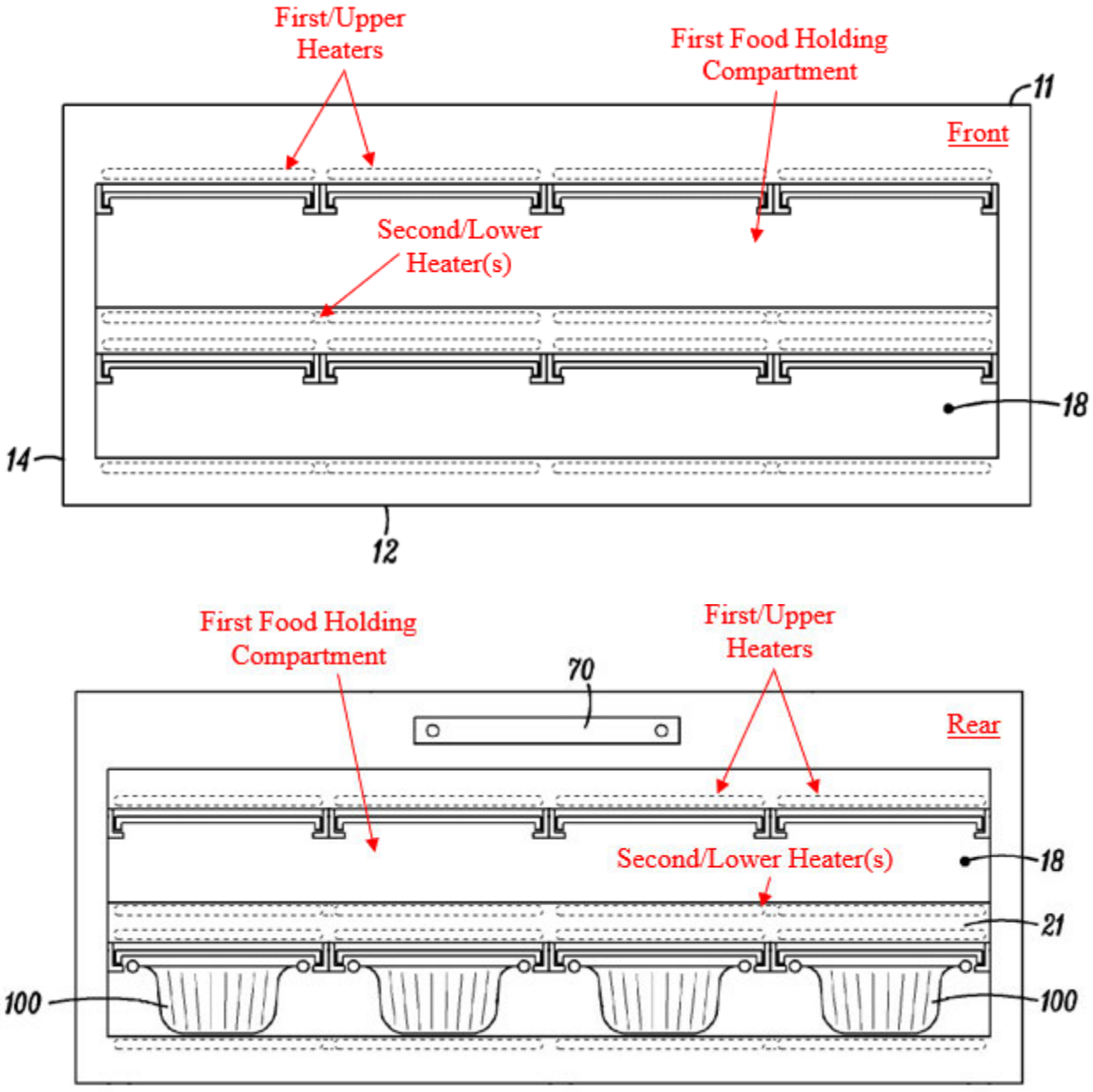
In view of Prince Castle, it would have been obvious for each upper heater of Fortmann'748's modified cabinet to be adapted to output more heat energy than the respective lower heater (higher setpoint temperature, higher maximum temperature setting, and/or higher wattage rating). EX1003: ¶¶979, 987. Moreover, as the upper and lower heaters of each zone are independently controllable and it was taught to customize upper and lower heating per food product (Section XII(A)(3)), adapting (e.g., setting) upper heating elements to output more heat energy than lower heating elements would have been an obvious design choice from a set of finite solutions (upper heat greater than, equal to, or

less than lower heat). *Uber Techs., Inc. v. X One, Inc.*, 957 F.3d 1334, 1341 (Fed. Cir. 2020) ("[POSA] would have faced a simple design choice between [known, finite solutions]"); EX1003: ¶979. And Prince Castle teaches upper heaters adapted to output more heat energy was well known. EX1009: 22, 40. EX1003: ¶979.

The POSA would have adapted the upper heaters to output more heat energy than respective lower heaters to overcome distance between upper heating elements and food, counteract evaporative cooling, maintain food surface temperature and texture, compensate for upper radiant heat radiating in all directions, and/or "to re-crisp breaded (fried) food, to melt cheese …, to brown [] food products" with the upper heaters. EX1027: ¶[0021]; EX1006: 1; EX1003: ¶¶980-984, 986. This helps "provide optimum environment" and "minimize temperature distribution from top to bottom." EX1006: 1; EX1007: 10, 51; EX1003: ¶985.

This would have been application of a known technique (Prince Castle's upper heaters outputting more heat than lower heaters) to improve a similar device (Fortmann'748's cabinet) in the same way (higher setpoint temperatures for upper heaters than lower heaters) with reasonable expectation of success (heaters can operate independently). Section XII(A)(3); EX1003: ¶988.

This renders obvious the first/upper heater being adapted (higher setpoint temperature, higher maximum temperature setting, and/or higher wattage rating) to output more heat energy than the second/lower heater. EX1003: ¶989-990.




EX1010: Figs. 2, 6 (modified).

### B. Claim 15

Met as explained in Section XII(F). EX1003: ¶¶991-995.

### C. Claim 16

Met as explained in Section XII(M). EX1003: ¶¶996-998.

### D. Claim 18

Met as explained in Section XII(H). EX1003: ¶¶999-1001.

### E. Claim 19

Met as explained in Section XII(I). EX1003: ¶¶1002-1004.

### F. Claim 20

Met as explained in Sections XII(J) and XII(N). EX1003: ¶¶1005-1011.

### G. Claim 29

Met as explained in Sections XII(B)(1.g), XII(J), XII(M), and XIV(A)(14.g). EX1003: ¶¶1012-1020.

## XV. GROUND 12: Claim 17 Would Have Been Obvious Over Fortmann'748 IRHS Documents in view of Jones, Fortmann'197, Fortmann'967, McMillan, Vaseloff, Hartfelder, Shei'099, Veltrop, Shei'155, and/or Prince Castle

Claim 17 depends from claim 14, but is otherwise identical to claim 6, and thus is met as explained in Sections XIII(A) and XIV(A). EX1003: ¶¶1021-1023.

## XVI. MANDATORY NOTICES UNDER 37 C.F.R. §42.8

### A. Real Parties-In-Interest under 37 C.F.R. §42.8(b)(1)

Duke Manufacturing Co. is the real party-in-interest for this Petition.

### B. Related Matters under 37 C.F.R. §42.8(b)(2)

The ’002 Patent is involved in civil action *Marmon Foodservice Technologies, Inc. v. Duke Manufacturing Co.*, 4:25-cv-01491, currently pending in the United States District Court for the Eastern District of Missouri.

### C. Designation of Lead and Back-Up Counsel under 37 C.F.R. §42.8(b)(3)

Pursuant to 37 C.F.R. §§42.8(b)(3) and 42.10(a), Duke Manufacturing Co. provides the following designation of counsel:

| **LEAD COUNSEL** | **BACK-UP COUNSEL** |
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### D. Service Information (37 C.F.R. §42.8(b)(4)):

Duke Manufacturing Co. consents to service by email to lead and backup counsel, using the email addresses above.

### E. Payment Information Under 37 C.F.R. §§42.15(a) and 42.103(a)

The *inter partes* review fees have been submitted herewith pursuant to 37 C.F.R. §42.103(a) and 42.15(a).

## XVII. GROUNDS FOR STANDING

The ’002 Patent is eligible for *inter partes* review. Duke is not barred or estopped from petitioning for *inter partes* review and was not served with a complaint alleging infringement of the ’002 Patent more than one year before the filing of this Petition.

## XVIII. CONCLUSION

*Inter partes* review of the ’002 Patent is requested.

Dated: July 2, 2026

Respectfully submitted,
*/William R. Everding/*
William R. Everding, Reg. No. 67,087
*Counsel for Petitioner*

## CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certifies that on July 2, 2026, a copy of the PETITION FOR INTER-PARTES REVIEW OF U.S. PATENT NO. 10,852,002 and associated exhibits were served via FedEx pursuant to 37 C.F.R. § 42.105 on the following attorneys of record for Patent Owner:

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Milwaukee, WI 53202
*Patent Owner's Correspondence Address of Record for U.S. Patent 10,852,002*

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St. Louis, MO 63101
*Additional Address Known to Petitioner as Likely to Effect Service*

By: */William R. Everding/*
William R. Everding
Reg. No. 67,087
Lead Counsel for Petitioner

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME REQUIREMENTS UNDER 37 C.F.R. §42.24**

Under 37 C.F.R. § 42.24(d), the undersigned certifies that this Petition for *Inter Partes* Review complies with the type-volume limitation of 37 C.F.R. § 42.24(a)(1) because it contains 13,983 words, excluding the parts of the Petition exempted by 37 C.F.R. §42.24(a).

This paper also complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and the type style requirements of 37 C.F.R. § 42.6(a)(2)(iii) and (iv).

*/William R. Everding/*
William R. Everding, Reg. No. 67,087
Lead Counsel for Petitioner

## Claims Appendix – U.S. Patent No. 10,852,002

The following claim listing shows the claims of the ’002 Patent with reference identifiers (“Ref. ID”) corresponding to claim limitations.

| Ref. ID | Claim Limitation |
|---|---|
| 1.P | A multi-zone food holding bin comprising: |
| 1.a | a chassis having a top panel, a first side panel, a second side panel, a bottom panel, a front face, and an opposing rear face; |
| 1.b.1 | a first food holding compartment within the chassis, the first food holding compartment being defined by the first side panel, the second side panel, and a shelf, |
| 1.b.2 | the first food holding compartment having a first opening, the first opening of the first food holding compartment being configured to allow food items to be placed into and removed from the first food holding compartment; |
| 1.c.1 | a substantially planar surface forming a top surface of the shelf and thus a bottom surface of the first food holding compartment, |
| 1.c.2 | the substantially planar surface extending completely to the first opening of the first food holding compartment, |
| 1.c.3 | and the substantially planar surface comprising a thermally conductive material; |
| 1.d.1 | a first food holding zone formed in the first food holding compartment, |
| 1.d.2 | the first food holding zone having an independently controllable first heating element disposed at a top portion of the first food holding compartment, and an independently controllable second heating element disposed at a bottom portion of the first food holding compartment, |
| 1.d.3 | the first food holding zone including a first food holding bay and a second food holding bay, each of the first and second food |

| Ref. ID | Claim Limitation |
|---|---|
| | holding bays being configured to receive a food holding tray; and |
| 1.e.1 | a second food holding zone formed in the first food holding compartment, |
| 1.e.2 | the second food holding zone having an independently controllable third heating element disposed at the top portion of the first food holding compartment and an independently controllable fourth heating element disposed at the bottom portion of the first food holding compartment, |
| 1.e.3 | the second food holding zone including a third food holding bay and a fourth food holding bay, each of the third and fourth food holding bays being configured to receive a food holding tray, |
| 1.f.1 | wherein the first food holding zone and the second food holding zone are adjacent one another across the substantially planar surface and |
| 1.f.2 | the first food holding zone is configured to maintain a first temperature and the second food holding zone is configured to maintain a second temperature, the first temperature and the second temperature capable of being different than one another, and |
| 1.g | wherein a first bezel is set forward from the shelf by a space. |
| 2 | The food holding bin of claim 1, wherein the space is configured to allow a latch to rotate from a locked position to an unlocked position to release lids held on lid holding ledges elevated above the substantially planar surface. |
| 3 | The food holding bin of claim 1, wherein the first bezel comprises dedicated displays and the dedicated display displays a temperature setting for a corresponding food holding bay. |
| 4.a.1 | The food holding bin of claim 1, wherein the first and second food holding compartments each have a second opening, uncovered and located at the rear face of the chassis, and |

| Ref. ID | Claim Limitation |
|---|---|
| 4.a.2 | the substantially planar bottom surface is configured to allow food items to be placed on the substantially planar surface through the first opening and removed from the planar and bottom surface from the second opening. |
| 5 | The food holding bin of claim 4, wherein the first bezel is located proximate the front face of the chassis, the food holding bin further comprising a second bezel located proximate the opposing rear face of the chassis. |
| 6 | The food holding bin of claim 1, wherein both the first and second independently controllable heating elements comprise a resistive wire. |
| 7 | The food holding bin of claim 1, wherein the substantially planar surface is substantially free of any dividing walls or other structure between the first, second, third, and fourth food holding bays. |
| 8 | The food holding bin of claim 1, wherein the first independently controllable heating element comprises a radiant heating source and the second independently controllable heating element provides heat energy through conduction. |
| 9 | The food holding bin of claim 1, wherein each food holding bay further comprises a dedicated lid holding shelf elevated above the substantially planar bottom surface in the first food holding compartment, the dedicated lid holding shelf being configured to receive and store a lid for a food holding tray. |
| 10 | The food holding bin of claim 1, wherein the first independently controllable heating element is a radiant heating element. |
| 11 | The food holding bin of claim 1, wherein the substantially planar surface comprises aluminum. |
| 12 | The food holding bin of claim 1, further comprising a food holding tray resting on the substantially planar surface. |

| Ref. ID | Claim Limitation |
|---|---|
| 13 | The food holding bin of claim 1, the first food holding zone and the second food holding zone being heated to different temperatures. |
| 14.P | A multi-zone food holding bin comprising: |
| 14.a | a chassis having a top panel, a first side panel, a second side panel, a bottom panel, a front face, and an opposing rear face; |
| 14.b.1 | a first food holding compartment within the chassis, the first food holding compartment being defined by the first side panel, the second side panel, and a shelf, |
| 14.b.2 | the first food holding compartment having a first opening, the first opening of the first food holding compartment being configured to allow food items to be placed into and removed from the first food holding compartment; |
| 14.c.1 | a substantially planar surface forming a top surface of the shelf and thus a bottom surface of the first food holding compartment, |
| 14.c.2 | the substantially planar surface extending completely to the first opening of the first food holding compartment, and |
| 14.c.3 | the substantially planar surface comprising a thermally conductive material; |
| 14.d.1 | a first food holding zone formed in the first food holding compartment, |
| 14.d.2 | the first food holding zone having an independently controllable first heating element disposed at a top portion of the first food holding compartment, and an independently controllable second heating element disposed at a bottom portion of the first food holding compartment, |
| 14.d.3 | the first food holding zone including a first food holding bay and a second food holding bay, each of the first and second food |

| Ref. ID | Claim Limitation |
|---|---|
| | holding bays being configured to receive a food holding tray; and |
| 14.e.1 | a second food holding zone formed in the first food holding compartment, |
| 14.e.2 | the second food holding zone having an independently controllable third heating element disposed at the top portion of the first food holding compartment and an independently controllable fourth heating element disposed at the bottom portion of the first food holding compartment, |
| 14.e.3 | the second food holding zone including a third food holding bay and a fourth food holding bay, each of the third and fourth food holding bays being configured to receive a food holding tray, |
| 14.f.1 | wherein the first food holding zone and the second food holding zone are adjacent one another across the substantially planar surface and |
| 14.f.2 | the first food holding zone is configured to maintain a first temperature and the second food holding zone is configured to maintain a second temperature, the first temperature and the second temperature capable of being different than one another, and |
| 14.g | wherein the first independently controllable heating element is adapted to output more heat energy than the second heating element. |
| 15.a.1 | The food holding bin of claim 14, wherein the first and second food holding compartments each have a second opening, uncovered and located at the rear face of the chassis, and |
| 15.a.2 | the substantially planar bottom surface is configured to allow food items to be placed on the substantially planar surface through the first opening and removed from the planar and bottom surface from the second opening. |

| Ref. ID | Claim Limitation |
|---|---|
| 16 | The food holding bin of claim 14, comprising a rotatable latch disposed adjacent the first opening. |
| 17 | The food holding bin of claim 14, wherein both the first and second independently controllable heating elements comprise a resistive wire. |
| 18 | The food holding bin of claim 14, wherein the substantially planar surface is substantially free of any dividing walls or other structure between the first, second, third, and fourth food holding bays. |
| 19 | The food holding bin of claim 14, wherein the first independently controllable heating element comprises a radiant heating source and the second independently controllable heating element provides heat energy through conduction. |
| 20.a | The food holding bin of claim 14, wherein each food holding bay further comprises a dedicated lid holding shelf elevated above the substantially planar bottom surface in the first food holding compartment, the dedicated lid holding shelf being configured to receive and store a lid for a food holding tray; and |
| 20.b.1 | wherein a rotatable latch disposed adjacent the first opening is rotatable between a locked position in which the latch prevents a lid from being removed from the lid holding shelf, and an unlocked position in which the latch allows removal of a lid from the lid holding shelf, |
| 20.b.2 | the latch being biased to the locked position by gravity. |
| 21.P | A multi-zone food holding bin |
| 21.a | a chassis having a top panel, a first side panel, a second side panel, a bottom panel, a front face, and an opposing rear face; |
| 21.b.1 | a first food holding compartment within the chassis, the first food holding compartment being defined by the first side panel, the second side panel, and a shelf, |

| Ref. ID | Claim Limitation |
|---|---|
| 21.b.2 | the first food holding compartment having a first opening, the first opening of the first food holding compartment being configured to allow food items to be placed into and removed from the first food holding compartment; |
| 21.c.1 | a substantially planar surface forming a top surface of the shelf and thus a bottom surface of the first food holding compartment, |
| 21.c.2 | the substantially planar surface extending completely to the first opening of the first food holding compartment, and |
| 21.c.3 | the substantially planar surface comprising a thermally conductive material; |
| 21.d.1 | a first food holding zone formed in the first food holding compartment, |
| 21.d.2 | the first food holding zone having an independently controllable first heating element disposed at a top portion of the first food holding compartment, and an independently controllable second heating element disposed at a bottom portion of the first food holding compartment, |
| 21.d.3 | the first food holding zone including a first food holding bay and a second food holding bay, each of the first and second food holding bays being configured to receive a food holding tray; and |
| 21.e.1 | a second food holding zone formed in the first food holding compartment, |
| 21.e.2 | the second food holding zone having an independently controllable third heating element disposed at the top portion of the first food holding compartment and an independently controllable fourth heating element disposed at the bottom portion of the first food holding compartment, |

| Ref. ID | Claim Limitation |
|---|---|
| 21.e.3 | the second food holding zone including a third food holding bay and a fourth food holding bay, each of the third and fourth food holding bays being configured to receive a food holding tray, |
| 21.f.1 | wherein the first food holding zone and the second food holding zone are adjacent one another across the substantially planar surface and |
| 21.f.2 | the first food holding zone is configured to maintain a first temperature and the second food holding zone is configured to maintain a second temperature, the first temperature and the second temperature capable of being different than one another, |
| 21.g.1 | further comprising a second food holding compartment disposed below the first food holding compartment within the chassis, the second food holding compartment being defined by the first side panel, the second side panel, and the shelf, |
| 21.g.2 | the second food holding compartment having a first opening, the first opening of the second food holding compartment being configured to allow food items to be placed into and removed from the food holding compartment; and |
| 21.h | a controller operatively coupled to the second heating element and to the fourth heating element, the controller being configured to independently operate the second heating element and the fourth heating element |
| 21.i.1 | wherein the shelf is located between the first and second food holding compartments, the shelf comprises a first side and a second side, the first side facing into the first food holding compartment, the second side facing into the second food holding compartment, and |
| 21.i.2 | the second and fourth heating elements are disposed in the shelf and in thermal communication with the first side, |
| 21.i.3 | the second and fourth heating elements being capable of providing different amounts of heat energy into the first and |

| Ref. ID | Claim Limitation |
|---|---|
| | second food holding zones of the first food holding compartment, and |
| 21.j.1 | wherein the shelf comprises an upper thermally conductive plate, a lower thermally conductive plate, a fifth heating element, and a sixth heating element, |
| 21.j.2 | the fifth and sixth heating elements being disposed between the upper thermally conductive plate and the lower thermally conductive plate, |
| 21.j.3 | the second and fourth heating elements being in thermal communication with the upper thermally conductive plate and the fifth and sixth heating elements being in thermal communication with the lower thermally conductive plate, |
| 21.j.4 | the fifth and sixth heating elements providing heat energy into the second food holding compartment. |
| 22 | The food holding bin of claim 21, wherein an insulative material is provided between the second and the fifth heating elements. |
| 23.a.1 | The food holding bin of claim 21, wherein the first and second food holding compartments each have a second opening, uncovered and located at the rear face of the chassis, and |
| 23.a.2 | the substantially planar bottom surface is configured to allow food items to be placed on the substantially planar surface through the first opening and removed from the planar and bottom surface from the second opening. |
| 24 | The food holding bin of claim 21, comprising a rotatable latch disposed adjacent the first opening. |
| 25 | The food holding bin of claim 21, wherein both the first and second independently controllable heating elements comprise a resistive wire. |
| 26 | The food holding bin of claim 21, wherein the substantially planar surface is substantially free of any dividing walls or other |

| Ref. ID | Claim Limitation |
|---|---|
| | structure between the first, second, third, and fourth food holding bays. |
| 27 | The food holding bin of claim 21, wherein the first independently controllable heating element comprises a radiant heating source and the second independently controllable heating element provides heat energy through conduction. |
| 28.a | The food holding bin of claim 21, wherein each food holding bay further comprises a dedicated lid holding shelf elevated above the substantially planar bottom surface in the first food holding compartment, the dedicated lid holding shelf being configured to receive and store a lid for a food holding tray; and |
| 28.b.1 | wherein a rotatable latch disposed adjacent the first opening is rotatable between a locked position in which the latch prevents a lid from being removed from the lid holding shelf, and an unlocked position in which the latch allows removal of a lid from the lid holding shelf, |
| 28.b.2 | the latch being biased to the locked position by gravity. |
| 29.a | The food holding bin of claim 21, further comprising: a first bezel is set forward from the shelf by a space; |
| 29.b | a rotatable latch disposed adjacent the first opening; |
| 29.c | wherein each food holding bay further comprises a dedicated lid holding shelf elevated above the substantially planar bottom surface in the first food holding compartment, the dedicated lid holding shelf being configured to receive and store a lid for a food holding tray; and |
| 29.d | wherein the first independently controllable heating element is adapted to output more heat energy than the second heating element. |