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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOSHUA B. MURPHY, JEFFREY T. DEBORD,
ERIC A. SOLLER, and RICHARD W. CARTWRIGHT

Appeal 2017-011565
Application 13/274,671
Technology Center 3700

Before: MICHAEL L. HOELTER, WILLIAM A. CAPP, and
NATHAN A. ENGELS, *Administrative Patent Judges*.

CAPP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Joshua B. Murphy, Jeffrey T. Debord, Eric A. Soller, and Richard W. Cartwright (hereinafter collectively “Appellant”)¹ seek our review under 35 U.S.C. § 134(a) of the Examiner’s final rejection of claims 1–3, 5–10, 12–14, and 16–24. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Appellant identifies Illinois Tool Works, Inc. as the real-party-in-interest. Appeal Br. 1.

THE INVENTION

Appellant's invention is an oven for cooking food. Spec. ¶ 1.

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. An oven comprising:

- a cooking chamber configured to receive a food product;
 - a user interface configured to display information associated with processes employed for cooking the food product;
 - a first energy source providing primary heating of the food product placed in the cooking chamber;
 - a second energy source providing browning for the food product;
- and

a cooking controller operably coupled to the first and second energy sources, the cooking controller including processing circuitry configured to enable an operator to make a browning control selection via the user interface by providing operator instructions to a selected control console rendered at the user interface,

wherein the selected control console is one of a plurality of different control console screens presented to the operator via the user interface that is selected based on a selected cooking mode of the oven,

wherein the browning control selection provides control parameters to direct application of heat to the food product via the second energy source for browning the food product,

wherein information associated with the selected cooking mode is displayed on one portion of the selected control console and information associated with enabling selection of the control parameters for browning in the selected cooking mode is displayed on another portion of the selected control console,

wherein information associated with enabling selection of the control parameters for browning in the selected cooking mode comprises a variable range selector to enable selection of a temperature, speed, or time, and

wherein in response to an adjustment to the variable range selector, the cooking controller calculates and applies a corresponding adjustment to the first energy source to ensure the second energy source does not overcook or overheat the food product.

THE REJECTIONS

The Examiner relies upon the following as evidence in support of the rejections:

Diesch	US 4,415,790	Nov. 15, 1983
Bales	US 6,486,453 B1	Nov. 26, 2002
Wiedemann	US 2008/0295702 A1	Dec. 4, 2008
Bogatin	US 2009/0134151 A1	May 28, 2009

The following rejections are before us for review:

1. Claims 1, 12, and 22–24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bogatin, Wiedemann, and Diesch.
2. Claims 1–3, 5–10, 12–14, and 16–24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bogatin, Bales, and Diesch.

OPINION

Unpatentability of Claims 1, 12, and 22–24 over Bogatin, Wiedemann, and Diesch

Claim 1

The Examiner finds that Bogatin and Wiedemann disclose the invention substantially as claimed except for the “corresponding adjustment” limitation toward the end of the claim, for which the Examiner relies on Diesch. Final Action 2–8. The Examiner concludes that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Bogatin and Wiedemann by the teachings of Diesch to achieve the claimed invention. *Id.* at 8. According to the Examiner, a person of ordinary skill in the art would have done this to minimize cooking time and cook with precision. *Id.*

Appellant argues that Diesch fails to satisfy the “corresponding adjustment” limitation of claim 1. Appeal Br. 5–6. Appellant argues that

Diesch uses a temperature probe that is inserted into the food product. *Id.* at 6. According to Appellant, Diesch's microwave heats the food product to a predetermined temperature that is sensed by the temperature probe. *Id.* Once the preset temperature is reached, energy is diverted from the microwave to a second energy source to brown and complete the cooking process. *Id.* Appellant argues that Diesch's energy diversion from a first to a second energy source is not performed in response to an adjustment of the variable range selector as claimed. *Id.*

In response, the Examiner states that Diesch teaches that the user sets a predetermined temperature. Ans. 21 (citing Diesch, col. 3, ll. 23–36; Figs. 1–2). According to the Examiner, upon reaching such predetermined temperature, Diesch's control system applies a corresponding adjustment to the first energy source to ensure that the second energy source does not overcook the food product. *Id.* (citing Diesch col. 4, ll. 1–33; Figs. 1–2).

In reply, Appellant emphasizes that the claimed controller adjusts one energy source to reduce the amount of energy applied to make sure that an increase to another energy source is compensated for. Reply Br. 3.

The user makes the adjustment that causes the cooking controller to have to act, but the cooking controller makes its adjustment without guidance from the user . . . The user is out of the picture after the adjustment made to the variable selector, and the cooking controller takes action to make sure that the user's action (i.e., making the adjustment) does not frustrate the overall purpose (i.e., cooking and browning the food product).
Id.

Diesch is directed to a microwave oven temperature probe control system. Diesch, Abstract. Diesch relies on a temperature probe inserted into a food product to sense temperature. *Id.* In Diesch's system, the operator

presets the final temperature for a food product. *Id.* col. 4, ll. 4–7. Diesch’s control system starts cooking with the first energy source (*i.e.*, the microwave) and, as a predetermined temperature is reached, the first energy source power level is decreased while power to the second energy source (convection heater) is increased to speed the browning and crisping of a food product. *Id.* Abstract, col. 4, ll. 16–28.

Appellant’s oven controller receives operator inputs to a variable range selector for cooking parameters such as time, temperature, and speed. Claims App., claim 1; Spec. ¶¶ 40–43. Such control inputs are made to the second energy source for browning the food product. *Id.* Such inputs may include dynamic inputs made by the operator during the cooking process. Spec. ¶ 26. Appellant’s control adjusts cooking parameters associated with a first energy (microwave) source based on adjustments made to the second energy source (browning) control. *Id.* ¶ 44.

In the rejection, the Examiner relies on Diesch as teaching variable input to the oven controller. Ans. 21 (citing Diesch col. 3, ll. 23–26). The Examiner then relies on disclosure at column 4, lines 1–33 as teaching that the controller applies a “corresponding adjustment” to “the first microwave energy source” as claimed. *Id.* Thus, in the Examiner’s rejection, the operator control input sets the “probe temperature.” *See* Diesch, col. 3, ll. 23–27. Such probe temperature is then used to coordinate the energy level to each of the first energy source and the second energy source. *Id.*

In contrast, Appellant’s claimed invention receives operator input adjustments to the variable range selector, which separately controls browning parameters for the second energy source. Claims App. claim 1. Only then does it calculate and apply a corresponding adjustment to the first

energy source. There is no analogous structure or function in Diesch that receives operator control inputs to a variable range selector that separately sets cooking parameters for the second energy source and, only then, calculates and applies a corresponding adjustment to the first energy source. Appellant's invention is thus patentably distinct from Diesch, either alone or in combination with Bogatin and Wiedemann.

The Examiner's rejection is not supported by a preponderance of the evidence such that we do not sustain the Examiner's unpatentability rejection of claim 1 over Bogatin, Wiedemann and Diesch.

Claims 22–24

Claims 22–24 depend, either directly or indirectly, from claim 1 and add various dependent limitations. Claims App. The Examiner's rejection of these claims suffers from the same infirmities that we have discussed above with respect to claim 1. For the same reasons, we do not sustain the Examiner's unpatentability rejection of claims 22–24 over Bogatin, Wiedemann and Diesch.

Claim 12

Claim 12 is an independent claim and, as with claim 1, contains a limitation directed to the cooking controller calculating and applying a corresponding adjustment to the first energy source in response to an adjustment to the variable range selector that receives control parameters for browning. Claims App. The Examiner's rejection of claim 12 relies on the same erroneous findings of fact that we have previously discussed in connection with the rejection of claim 1 above. Final Action 2–8. For the same previously discussed reasons, we do not sustain the Examiner's unpatentability rejection of claim 12 over Bogatin, Wiedemann and Diesch.

*Unpatentability of Claims 1–3, 5–10, 12–14, and 16–24
over Bogatin, Bales, and Diesch*

In this ground of rejection, the Examiner, once again, errs in relying on Diesch as satisfying the “corresponding adjustment” limitation of independent claims 1 and 12. Final Action 10–16. This infirmity infects the rejection of the remaining, pending claims that depend, directly or indirectly, therefrom. For the same reasons previously discussed under the grounds of rejection over Bogatin, Wiedemann, and Diesch, we do not sustain the Examiner’s unpatentability rejection of claims 1–3, 5–10, 12–14, and 16–24 over Bogatin, Bales, and Diesch.

SUMMARY

Claims Rejected	Basis	Reference(s)	Aff’d	Rev’d
1, 12, & 22–24	§ 103	Bogatin, Wiedemann, & Diesch		X
1-3, 5-10, 12-14 & 16–24	§ 103	Bogatin, Bales, & Diesch		X

DECISION

The decision of the Examiner to reject claims 1–3, 5–10, 12–14, and 16–24 is reversed.

REVERSED