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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YI-MING TSENG

Appeal 2018-001306
Application 13/716,207
Technology Center 3700

Before MICHAEL L. HOELTER, ARTHUR M. PESLAK, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from the Examiner's Final Rejection of claims 1–9, 14, 15, and 21–29. Final Act. 1 (Office Action Summary). We have jurisdiction under 35 U.S.C. § 6(b). For the reasons explained below, we find error in the Examiner's rejections. Accordingly, we REVERSE.

THE CLAIMED SUBJECT MATTER

The disclosed subject matter relates “to a device for supporting a person.” Spec. ¶ 1. Claims 1 and 21 are independent. Claim 1 is illustrative of the claims on appeal and is reproduced below.

1. A device for supporting a person, the device comprising:
 - a thermally conductive seat configured to support buttocks of the person;
 - a container overlapping the thermally conductive seat and comprising a thermally insulating part, a thermally conducting part, and an inner space, wherein the thermally conducting part is surrounded by the thermally insulating part, and wherein the inner space is enclosed by at least one of the thermally insulating part and the thermally conducting part; and
 - a thermal switch overlapping each of the container and the thermally conductive seat, being positioned between the container and the thermally conductive seat, and configured to thermally disconnect the container from the thermally conductive seat based on at least one of a temperature of the container and a temperature of the thermally conductive seat.

REFERENCES RELIED ON BY THE EXAMINER

Myers	US 3,463,224	Aug. 26, 1969
Dicks	US 2005/0062323 A1	Mar. 24, 2005
Daly	IE 2008/0084	July 7, 2010

eGullet Forums, dated September, 2006.

[https://forums.egullet.org/topic/92565-building-a-homemade-proofing-box/\[6/21/2017 8:59: 14 PM\]](https://forums.egullet.org/topic/92565-building-a-homemade-proofing-box/[6/21/2017 8:59: 14 PM])

Seasoned Advice, dated December, 2010.

<https://cooking.stackexchange.com/questions/10310/how-warm-must-dough-be-in-order-to-rise>

THE REJECTIONS ON APPEAL

Claims 1–3 are rejected as being anticipated by Myers. Final Act. 2.

Claims 1–5, 7–9, 14, and 15 are rejected as being unpatentable over Daly and Myers. Final Act. 4.

Claim 6 is rejected as being unpatentable over Daly, Dicks, and Myers. Final Act. 8.

Claims 21 and 23–29 are rejected as being unpatentable over Daly, eGullet Forums, and Myers. Final Act. 8.

Claim 22 is rejected as being unpatentable over Daly, Myers, eGullet Forums, and Seasoned Advice. Final Act. 12.

ANALYSIS

The rejection of claims 1–3 as anticipated by Myers

Independent claim 1 (and hence dependent claims 2 and 3) includes limitations pertaining to a thermally conductive seat,¹ a container, and a thermal switch “configured to thermally disconnect the container from the thermally conductive seat.”

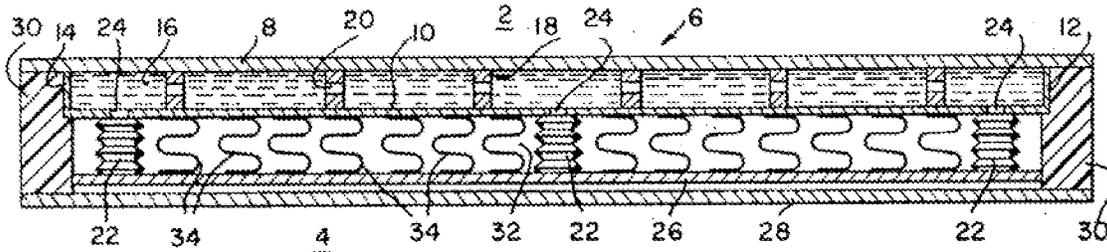
The Examiner identifies Myers as disclosing these limitations, and specifically a “conductive seat (28),”² a “container (12, 14, 10),” and “a thermal switch (8 and 26)” which is “configured to thermally disconnect the container from the [] seat.” Final Act. 2–3.

¹ One skilled in the art would understand from reading Appellant’s Specification that the seated person 102 is the heat source. For example, Spec. ¶ 16 states, “[t]he seat module may include a thermoelectric generator 106 configured to receive a first set of heat provided from (e.g., the rectum and/or the legs of) person 102.” Additionally, Spec. ¶ 26 addresses “a second set of heat provided from (e.g., the back of) person 102.”

² Claim 1 recites a “seat configured to support buttocks of the person” and the Examiner states that Myers’ item 28 is “configured to be able to be sat on by a person.” Ans. 15.

To be clear, Myers teaches a heat transfer switch 6 having heat source 2 on one side and heat sink 4 on an opposite side. See Myers Fig. 1 below.

Fig. 1.



Above Figure 1 of Myers is a cross section of heat transfer switch 6.

Myers discloses that heat from source 2 acts upon an expandable fluid 16 contained within walls 10, 12, and 14 as the heat moves from heat source 2 toward opposite heat sink 4. Myers 2:6–19; *see also id.* at 2:43–45.

Downstream these walls and expandable fluid is heat transfer plate 26 which moves in the direction of heat flow as the fluid expands. Myers 2:19–23.

Spaced from heat transfer plate 26 is exterior plate 28, in direct engagement with heat sink 4. See Myers Fig. 1. Myers teaches that

When the temperature of heat source 2 is at or below the desired level, plate 26 is spaced from plate 28 and since there is a vacuum (or ambient) in space 32, only a nominal amount of heat will pass from source 2 to heat sink 4. . . . When the temperature of heat source 2 rises above the desired level, fluid 16 will expand . . . forcing plate 26 into physical contact with plate 28. Heat will then be passed by conduction from heat source 2 through . . . plate 26 and plate 28 to heat sink 4.

Myers 2:34–45.

By this configuration, any heat reaching plate 28 is, according to Myers, passed to heat sink 4. See *supra*. This is consistent with Appellant’s contention that Myers’ “heat sink 4 is a passive device or substance that absorbs heat from Myers’s plate 28.” App. Br. 10, Reply Br. 12–13. Thus,

the Examiner's correlation of Myers' item 28 as the recited "seat" (which receives the heat source) is troubling because, as indicated above, any heat reaching seat 28 is dissipated to the heat sink. In other words, the Examiner has now placed both the heat source and the heat sink on the same side of Myers' device thereby effectively by-passing Myers' internal fluid, walls, and movable plate 26. Consequently, heat no longer passes across Myers' device because the heat flow path now extends from the person to seat 28 and hence to the sink. The Examiner does not make clear how any heat from this seat/person passes, instead, internal to or across Myers' device.

Regarding this latter point, Myers effectively precludes any flow of heat back into the device by explaining that side wall 30 surrounding the container is insulated, and the space between these walls (and between plates 26 and 28) "is preferably a vacuum so as to prevent heat transfer by convection."³ Myers 2:24–27. As a consequence, by correlating Myers' plate 28 as the recited "seat," the heat flow path now only involves seat 28 directly joining the heat source with the heat sink on the same side of Myers' device. This effectively renders Myers inoperable for its intended purpose since heat no longer passes through the device itself as would occur when the heat source and the heat sink are on opposite sides thereof.

Additionally, because Myers takes steps to prevent heat passing from plate 28 internally (*see supra*), the Examiner does not explain how Myers' thermal switch (i.e., plates 8 and 26 (Final Act. 3)) is thus still "configured to thermally disconnect the container from the [] seat" as recited.

³ Note Myers' teaching above that heat is "passed by conduction" via direct contact between plates 26 and 28. Myers 2:43–45.

Appellant addresses this lack of a “thermally disconnect” limitation from a structural perspective. *See* App. Br. 11. Appellant first establishes the Examiner’s finding that “Myers’s container comprises Myers’s wall 30.” App. Br. 11 (referencing Final Act. 2). Appellant then states that there can be no disconnect between the container (comprising wall 30) and seat 28 because Myers’ “wall 30 remains contacting Myers’s plate 28” and hence is not disconnectable therefrom. App. Br. 11, Reply Br. 13. Appellant’s contention is persuasive and the Examiner’s statement that “Myers can be thermally disconnected, as 30 is insulated” is unconvincing (i.e., it is not clear how being insulated renders the wall disconnectable). Ans. 15.

Thus, for at least the above reasons, we are not persuaded the Examiner has established by a preponderance of the evidence that Myers anticipates the claimed device. In summation, and based on the record presented, we do not sustain the Examiner’s rejection of claims 1–3 as being anticipated by Myers.

*The rejection of claims 1–5, 7–9, 14, and 15
as being unpatentable over Daly and Myers*

Under this rejection, the Examiner primarily relies on the teachings of Daly, but again, correlates Myers plate 28 to the recited “seat,” as well as Myers items 8 and 26 to the recited switch that is “configured to thermally disconnect” the seat from the container (i.e., Myers’ items 10, 12, 14). Final Act. 4–5. For the same reasons previously expressed, we find fault with the Examiner’s analysis and, accordingly do not sustain the Examiner’s rejection of claims 1–5, 7–9, 14, and 15 as being obvious over Daly and Myers.

*The rejection of claim 6
as being unpatentable over Daly, Dicks, and Myers*

Claim 6 depends directly from claim 1. The Examiner relies on the additional reference to Dicks for teaching the additional limitation directed to “a lighting device.” Final Act. 8. In short, the Examiner does not rely on Dicks for curing the defect of Myers discussed above with respect to parent claim 1. Consequently, we do not sustain the Examiner’s rejection of claim 6 as being obvious over Daly, Dicks, and Myers.

*The rejection of claims 21 and 23–29
as being unpatentable over Daly, eGullet Forums, and Myers*

Under this rejection, the Examiner again correlates Myers plate 28 to the recited “seat,” and relies on Myers “thermal switch (6) to thermally disconnect” the seat from the container (i.e., Myers’ items 10, 12, 14). Final Act. 9. For the same reasons previously expressed, we find fault with the Examiner’s analysis.

In addition to the above, the Examiner further relies on eGullet Forums as teaching “using the first set of heat received from the person (when a person is seated on proofing box) to warm a set of dough” inside the proofing box. Final Act. 9. A review of this reference fails to turn up any disclosure of a person sitting on the box and acting as the heat source for the contained dough, and the Examiner does not identify where such a teaching can be found. Instead, this reference teaches using such heat sources as a “higher wattage” bulb, “a heating pad,” “hot water in a pan,” a “bright heat lamp,” “a thermostat controlled 40Watt lamp,” “a fish heater,” “a seed sprouting heating mat,” and the like.

Based on the record presented, we do not sustain the Examiner's rejection of claims 21 and 23–29 as being obvious over Daly, eGullet Forums, and Myers.

*The rejection of claim 22 as being unpatentable
over Daly, Myers, eGullet Forums, and Seasoned Advice*

Claim 22 depends from claim 21. The Examiner contends that claim 22 is unpatentable in view of Myers “**as applied to claim 21 above.**” Final Act. 12. We are not persuaded that Myers renders claim 21 obvious. *See supra*. Additionally, the Examiner relies on Seasoned Advice for teaching a temperature range at which dough will rise. Final Act. 12. Such teachings do not cure the above defects of Myers. Accordingly, and based on the record presented, we do not sustain the Examiner's rejection of claim 22 as being obvious over Daly, Myers, eGullet Forums, and Seasoned Advice.

DECISION

The Examiner's rejections of claims 1–9, 14, 15, and 21–29 are reversed.

REVERSED