

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROGER BRADSHAW QUINCY
and ELIZABETH DEIBLER GADSBY

Appeal 2008-0917
Application 10/328,707
Technology Center 1700

Decided: February 6, 2008

Before BRADLEY R. GARRIS, CHARLES F. WARREN, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 60, 61, 63-65, and 77-79.¹ We have jurisdiction under 35 U.S.C. § 6.

¹ In a footnote on page 2 of the Brief, filed Feb. 5, 2007, (hereinafter Brief), Appellants state that "dependent claim 76 is hereby canceled and removed from consideration in the present application" and that, "[a]s such, claim 76

We AFFIRM.

Appellants claim a personal care absorbent article that comprises a nonwoven web in a liquid-transmissive layer and/or a liquid-absorbent core wherein the nonwoven web contains an N-halamine compound and an odor absorbent.

Further details regarding this claimed subject matter are set forth in representative claims 60 and 61 which read as follows:

60. A personal care absorbent article that comprises at least one liquid-transmissive layer and a liquid-absorbent core, wherein a nonwoven web forms at least a portion of the liquid-transmissive layer, the liquid-absorbent core, or combinations thereon, wherein the nonwoven web contains an N-halamine compound in an amount of from about 0.1 to about 10% by weight and an odor adsorbent in an amount of 0.5% to about 20% by weight, wherein after being aged at a temperature of 130°F and a relative humidity of 50% for 2 weeks, the nonwoven web exhibits a log reduction for *E. coli*, *S. aureus*, *P. mirabilis*, or combinations thereof, of at least about 3, measured after a contact period of 4 hours.

61. The personal care absorbent article of claim 60, wherein the nonwoven web is substantially free from superabsorbents.

The references set forth below are relied upon by the Examiner as evidence of obviousness:

Hagiwara	4,525,410	Jun. 25, 1985
Jordan	4,842,593	Jun. 27, 1989
Worley	6,548,054 B2	Apr. 15, 2003

is not recited in the attached claims Appendix." Due to non-compliance with 37 CFR § 1.4(c), this footnoted statement has not effected cancellation of claim 76. Nevertheless, we consider this claim to have been withdrawn from the subject appeal by virtue of the afore-noted statement.

All of the appealed claims are rejected under 35 U.S.C. § 103(a) as being unpatentable over Worley in view of Hagiwara and Jordan.

Like Appellants (Br. 7-11), we understand the Examiner's obviousness position to be that it would have been obvious for one with ordinary skill in this art to place Worley's combination of biocidal N-halamine particles and odor absorbent (i.e., adsorbent) in the nonwoven web of Jordan's liquid pervious top sheet or absorbent core at concentrations which fall within the claim 60 ranges as evidenced by Hagiwara with respect to the absorbent (i.e., adsorbent) concentration. Appellants argue that no motivation exists for so combining the teachings of the applied references (*id.*). We cannot agree.

It is undisputed that Worley teaches providing absorbent articles of the type disclosed by Jordan and defined by claim 60 with biocidal polymer beads of the type and at concentrations defined by claim 60 (Abstract; col. 5, ll. 2-37). Likewise, there is no dispute that Worley teaches using the aforementioned biocidal polymer beads in combination with odor absorbents (i.e., adsorbents) (col. 5, ll. 41-55) as required by claim 60 or that Jordan teaches absorbent articles comprising a liquid pervious top sheet and absorbent core formed of nonwoven webs (col. 4, ll. 26-34 and 54-59) containing antimicrobial agent in particulate form (col. 13, ll. 1-10). Furthermore, there is no dispute that Worley's odor absorbents include zeolites, alumina and silica (col. 5, ll. 50-55), which, as evidenced by Hagiwara (col. 2, ll. 19-26; col. 8, ll. 45-55), are known adsorbents.

In light of these undisputed findings, we conclude that it would have been obvious for an artisan to employ Worley's biocidal beads as the

antimicrobial particulates used by Jordan in the nonwoven webs of the liquid pervious top sheet and/or the absorbent core. Contrary to Appellants' argument, an artisan would have been motivated to so combine these reference teachings because Worley expressly teaches using his biocidal beads in absorbent articles and Jordan expressly teaches providing his absorbent articles with antimicrobial particulates. Therefore, the proposed combination is the natural consequence of the directions provided by these references as to how the respective inventions thereof are to be used by those skilled in this art.

In providing the above-discussed combination, an artisan also would have found it obvious to use Worley's biocidal beads in conjunction with an odor absorbent (i.e., adsorbent) such as clay or zeolite since this is explicitly taught by patentee as previously explained. While Worley does not disclose any particular concentrations for this odor absorbent (i.e., adsorbent), an artisan would have recognized concentration to be a result-effective parameter as evinced by both Worley and Hagiwara. It is well settled that the determination of workable values for a result-effective parameter would have been obvious. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990). Under these circumstances, we further conclude that it would have been obvious for the artisan to determine workable concentrations for Worley's odor absorbent (i.e., adsorbent), thereby yielding concentrations within the range defined by claim 60.

It is the Examiner's determination that the absorbent article resulting from the applied prior art teachings would inherently possess the claim 60 characteristic "wherein after being aged at a temperature of 130°F and a

relative humidity of 50% for 2 weeks, the nonwoven web exhibits a log reduction for *E. coli*, *S. aureus*, *P. mirabilis*, or combinations thereof, of at least about 3, measured after a contact period of 4 hours" (Ans. para. bridging 5-6). Appellants argue that the Examiner's inherency position has not been established by fact and/or technical reasoning and that an absorbent article having the compositional and structural features of claim 60 would not necessarily possess the claimed log reduction as evidenced by certain Specification data (Br. 4-7). This argument is unconvincing.

We recognize that the Examiner's inherency position must be supported by a basis in fact and/or technical reasoning. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990). Here, the absorbent article resulting from the Examiner's proposed combination of reference teachings possesses each of the compositional and structural features required by claim 60. Moreover, the biocidal polymer beads of Worley are explicitly and repeatedly described as having significant biocidal effect with high log reductions against each of the specific microorganisms recited in claim 60 (col. 5, ll. 56-64; Examples 2-3 at cols. 8-9; Example 5 at col. 12; and especially Example 7 at cols. 13-14). These facts amply support the very reasonable determination that Worley's biocidal polymer beads, when used in the concentrations and environments taught by patentee and claimed by Appellants, (1) would exhibit a significant biocidal effect having high log reductions against the microorganisms under consideration and therefore (2) would inherently possess the log reduction capability required by claim 60. It follows that we are unpersuaded by Appellants' argument that the

Examiner's inherency position is not supported by fact and/or technical reasoning.

We also are unpersuaded by the argument that Specification data from Samples 6, 8, 9, and 11 evince that the claim 60 log reduction capability would not necessarily be possessed by the prior art combination proposed by the Examiner. This data shows only that articles having 2.5 wt.% clay as odor absorbent (i.e., adsorbent) possess the here-claimed log reduction whereas corresponding articles having 16.7 wt.% superabsorbent as odor absorbent do not. Such a showing does not evince that the Examiner's inherency position is improperly based on probabilities or possibilities. This is because, although Worley teaches using various materials as an odor absorbent (or adsorbent) including clay and superabsorbent polymer (col. 5, ll. 41-52), patentee does not require use of superabsorbent polymer as the Examiner has correctly indicated (Ans. 7, 8, 9). Stated differently, Worley teaches many combinations of biocidal polymer beads and odor absorbents (i.e., adsorbents), which do not include superabsorbent polymers, including the biocide and clay combination shown by Appellants' data to possess the log reduction capability of claim 60. Accordingly, the Specification data militates for rather than against a determination that such embodiments would inherently possess the capability under consideration.

Furthermore, in combining the applied reference teachings in the manner discussed above, an artisan would have been motivated to not use a superabsorbent at a concentration which resulted in an unacceptable diminishment of the previously discussed log reduction capabilities of the biocidal polymer beads of Worley. Such diminishment is an antithetical to

Worley's teachings and purpose, and the artisan would not have used biocide and odor absorbent (i.e., adsorbent) combinations which militate against the teachings and purpose of Worley. We emphasize that a person of ordinary skill is also a person of ordinary creativity, not an automaton. *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007).

Finally, Appellants argue that the applied prior art contains no teaching or suggestion of the claim 61 requirement that "the nonwoven web be substantially free from 'superabsorbents'" (Br. 11). This argument is without persuasive merit for the reasons detailed above. With regard to this argument, Appellants state that, "[w]ithout intending to be limited by theory, it is believed that superabsorbents can deactivate the halogen oxidant responsible for the antimicrobial efficacy of halogenated antimicrobial agents such as [the here-claimed] N-halamines" and that "[n]owhere does any of the cited references recognize such an effect on the stability of the antimicrobial agent" (*id.*). However, we perceive no reason why obviousness requires the applied references to recognize Appellants' unproven theory to which they do not intend to be limited. Regardless, in determining whether the subject matter of a claim is obvious, neither the particular motivation nor the avowed purpose of the inventor controls. What matters is whether the objective reach of the claim extends to what is obvious. *KSR*, 127 S. Ct. at 1741-42. As explained earlier, claim 61 extends to obvious subject matter.

For the above stated reasons, we hereby sustain the § 103 rejection of all claims on appeal as being unpatentable over Worley in view of Hagiwara and further in view of Jordan.

Appeal 2008-0917
Application 10/328,707

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

cam

DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449