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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SERGEY G. PONOMAREV

Appeal 2019-000630
Application 13/644,268
Technology Center 1700

Before KAREN M. HASTINGS, BRIAN D. RANGE, and
MICHAEL G. McMANUS, *Administrative Patent Judges*.

MICHAEL G. McMANUS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ seeks review of the Examiner's decision to reject claims 1, 2, 5, 8–11, 13–15, and 18–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as The Boeing Company. Appeal Br. 2.

BACKGROUND

The present application generally relates to a method for cleaning a contaminated surface. Specification (filed Oct. 4, 2012) (“Spec.”) ¶ 1. The method is described as follows:

The method includes covering at least a portion of the contaminated surface with an absorptive medium. At least a portion of the absorptive medium is saturated with a cleaning solution before the portion of the contaminated surface is covered with the absorptive medium, or at least a portion of the absorptive medium is saturated with a cleaning solution after the portion of the contaminated surface is covered with the absorptive medium. Steam is applied to the saturated absorptive medium for a period of time to facilitate removing contaminants from the contaminated surface and to facilitate transferring the contaminants to the absorptive medium.

Id. ¶ 5.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below with certain limitations bolded for emphasis:

1. A method for cleaning a contaminated surface, said method comprising:

covering at least a portion of the contaminated surface with an absorptive medium having a first side that contacts the contaminated surface and a second side opposing the first side; at least one of saturating at least a portion of the absorptive medium with a cleaning solution before the portion of the contaminated surface is covered with the absorptive medium, or saturating at least a portion of the absorptive medium with a cleaning solution after the portion of the contaminated surface is covered with the absorptive medium;

discharging steam towards the saturated absorptive medium from a nozzle positioned a distance from and independent of the saturated absorptive medium such that the nozzle is moved relative to the saturated absorptive

medium and the contaminated surface, the steam discharged for a period of time to facilitate removing contaminants from the contaminated surface and to facilitate transferring the contaminants to the absorptive medium, wherein the steam is discharged from the nozzle at a discharge pressure of at least about 30 pounds per square inch, wherein the steam traverses the second side of the absorptive medium as the nozzle moves relative to the saturated absorptive medium such that the cleaning solution in the saturated absorptive medium is forced towards the contaminated surface, wherein the saturated absorptive medium is substantially stationary relative to the contaminated surface as steam is applied to the saturated absorptive medium;

removing the absorptive medium from the contaminated surface after the steam is applied thereto; and

rinsing the contaminated surface with a rinsing solution that is different from the cleaning solution after at least one of the absorptive medium is removed from the surface.

Appeal Brief (filed March 23, 2018) (“Appeal Br.”) 18 (Claims App’x) (emphasis added).

REJECTIONS

The Examiner maintains the following rejections:

1. Claims 1, 2, 8–11, 14, 15, 19, and 20 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over the Carpet Article (*How to Remove a Carpet Stain With an Iron*, WIKIHOW (Nov. 12, 2011), <https://web.archive.org/web/2011112231408/http://www.wikihow.com/Remove-a-Carpet-Stain-With-an-Iron> (“the Carpet Article”)) in view of Parisi (US 4,433,451, issued Feb. 28, 1984) (as evidenced by U.S. Patent No. 4,369,544), Zhou (CN 201396738, issued Feb. 3,

2010), the Argos Iron Article (*Introduction to Irons*, ARGOS (Aug. 11, 2011), <https://www.argos.co.uk/static/BuyingGuide/bgTrail/7.htm> (“the Argos Iron Article”)), and Nottingham et al. (US 2010/0126533 A1, published May 27, 2010) (“Nottingham”). Final Action (dated Nov. 17, 2017) (“Final Act.”) 3–10.

2. Claims 5 and 13 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over the Carpet Article, in view of Parisi, Zhou, the Argos Iron Article, Nottingham, and Holt et al. (US 6,601,261 B1, issued Aug. 5, 2003) (“Holt”). *Id.* at 10–11.
3. Claims 18 and 21 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over the Carpet Article, in view of Parisi, Zhou, the Argos Iron Article, Nottingham, and O’Bryan (US 4,168,563, issued Sept. 25, 1979). *Id.* at 11–13.

DISCUSSION

Rejection 1. The Examiner rejects claims 1, 2, 8–11, 14, 15, 19, and 20 as obvious over the Carpet Article, in view of Parisi, Zhou, the Argos Iron Article, and Nottingham. *Id.* at 3–10. Appellant presents arguments in support of the patentability of claim 1. Appeal Br. 8–15. Appellant argues that the remaining claims at issue are patentable for the same reasons as claim 1. *Id.* at 15–16. Accordingly, we confine our discussion to appealed claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The primary reference, the Carpet Article, teaches two methods of cleaning a carpet stain. In the first method, one sprays a vinegar solution on a carpet stain, places a damp towel over the carpet stain, and runs an iron (set to “the highest steam setting available”) lightly over the damp towel until the stain has been removed. The Carpet Article 1–2. In the second method, one places a towel in a soap solution, arranges the towel over the carpet stain, places the iron (set at a low steam setting) on the towel and lets it sit. *Id.* at 3. The second method further teaches that “you may need to move the iron to another part of the stain and repeat the steaming process until the entire stain has been removed.” *Id.* at 4.

The Examiner finds that Parisi teaches a carpet cleaning device having a steam nozzle positioned at a distance from a cloth absorptive medium. Final Act. 4. The Examiner further finds that Zhou teaches a cleaning method “wherein a high-pressure steam is used,” and the Argos Iron article “discloses that pressurized steam generator irons that release steam pressure of up to 5 bar are known in the art.” *Id.* at 5. The Examiner finds that 5 bar is approximately 72 pounds per square inch (psi). *Id.*

The Examiner finds that one of ordinary skill in the art would have had reason to combine the teachings of the Carpet Article and Parisi so as to achieve the result of “absorbing the stain through the absorptive medium” and to “bring the contaminants to the surface.” *Id.* at 4–5. In the Answer, the Examiner finds that “Parisi discloses that the steam nozzle can be positioned a distance away from the absorptive medium and still achieve the desired effect of moistening the absorptive medium with steam” and that such result is predictable. Answer 5.

Appellant argues that the claims were rejected in error. In the initial portion of its brief, Appellant discusses each of the cited references and concludes that they “all describe systems in which an absorptive medium is moved relative to a contaminated surface, and a discharge nozzle is either coupled directly against the absorptive medium or stationary relative to the absorptive medium.” Appeal Br. 9–11. This is merely conclusory and does not address the rejection as formulated by the Examiner. *See* 37 CFR § 41.37(c)(1)(iv).

For its second argument, Appellant contends that the Examiner has not articulated an adequate reason to combine and, instead, merely relies upon hindsight. *Id.* at 11–13. Appellant argues that “the Carpet article requires direct contact of the iron with the saturated cloth for operation.” *Id.* at 11. Appellant further argues that “a person of ordinary skill in the art having common sense at the time of the invention would not have reasonably looked to the carpet article to solve the problem associated with cleaning a contaminated surface by applying steam from a distance spaced from the contaminated surface.” *Id.* at 12. Appellant additionally asserts that the teachings of the Carpet Article and Parisi relied upon by the Examiner are merely “isolated disclosures that have been pieced together in an attempt to replicate the claimed subject matter.” *Id.* Appellant further argues that the rejection is merely conclusory and lacks “articulated reasoning.” Appeal Br. 13, 14–15.

We determine that the foregoing fails to show reversible error. The Examiner concedes that the Carpet Article teaches that the iron is in contact with the towel (absorptive medium). *See* Final Act. 4 (“The Carpet Article does not explicitly disclose that the nozzle is positioned a distance from the

saturated absorptive medium.”). The Examiner looks to Parisi as teaching this element. *Id.* Specifically, the Examiner cites to spray hose 127 in Figures 3 and 6 as teaching a steam nozzle positioned at a distance. *Id.* Figure 6 of Parisi is reproduced below.

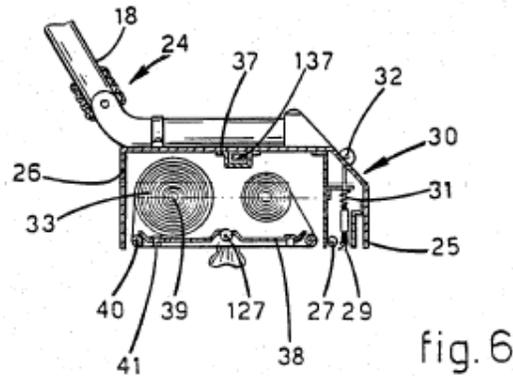


Figure 6 of Parisi shows a section (side view) of the operating head of a cleaning device. Parisi 3:11–12. Parisi teaches that “[t]he spray hose 127 is located internally and acts on cloth 33 accomplishing the function of further softening the difficult dirt.” *Id.* at 2:68–3:2. Figure 6 of Parisi depicts the steam sprayed at an angle for increased dispersal.

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). The question to be asked is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.* at 417.

Here, the references teach that steam spray nozzles intended to be used in contact with a cloth substrate as well as steam spray nozzles intended to be used at a slight distance from a cloth substrate are both known in the

art. One of skill in the art would understand that either configuration would be effective for stain removal.

Further, the Examiner has articulated a rationale in support of the rejection. The Examiner determined that one of ordinary skill in the art would have had reason to combine the teachings of the Carpet Article and Parisi so as to achieve the result of “absorbing the stain through the absorptive medium” and to “bring the contaminants to the surface.” Final Act. 4. In the Answer, the Examiner finds that “Parisi discloses that the steam nozzle can be positioned a distance away from the absorptive medium and still achieve the desired effect of moistening the absorptive medium with steam” and that such result is predictable. Answer 5. Appellant has not shown error in such reasoning.

For its third argument, Appellant asserts that the Examiner’s proposed combination would “render the cleaning method of the Carpet Article unsatisfactory for its intended purpose.” Appeal Br. 13. More specifically, Appellant argues that “positioning a clothes iron any distance from an absorptive medium covering a contaminated surface, and then discharging steam towards the absorptive medium from the clothes iron, would be wholly ineffective at cleaning the contaminated surface, and would render the Carpet Article unsatisfactory for its intended purpose.” *Id.*; *see also id.* at 15. Appellant further argues that steam emitted from an iron is at a pressure that requires the iron to be placed against the medium in order to reach the “contaminated surface.” *Id.* at 13–14. Appellant asserts that none of the cited references suggests discharging steam from a nozzle located at a distance from the medium (cloth) and which is moved relative to the medium. *Id.* at 14.

Thus, Appellant seems to argue that modification of the method of the Carpet Article such that the steam is discharged from a distance would render such method ineffective. In the Answer, the Examiner determines that the cited references teach the use of high pressure steam irons as set forth in the rejection. Answer 7; *see* Final Act. 5. The Examiner further determines that Appellant's arguments are "merely a conclusive statement and Appellant has provided no evidence other than mere attorney arguments." *Id.*

We find Appellant's arguments to be unpersuasive. Appellant's contention regarding the lack of disclosure of a nozzle distant from the medium (cloth or towel) is contradicted by the evidence of record. Parisi teaches to emit steam from a distance above the cloth medium. *See* Parisi, Figs. 3, 5, 6; *see also id.* at 1:48–51, 2:63–3:6. The Carpet Article teaches that the steam nozzle may be moved relative to the stationary cloth medium. Carpet Article 2, 4. The evidence, taken as a whole, does not support Appellant's contention that the method of the Carpet Article would be rendered unsuitable for its intended purpose by modification as proposed by the Examiner. Further, Appellant seeks to argue against the references individually rather than the proposed combination. Non-obviousness, however, "cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Board rules require that the brief shall contain "[t]he arguments of appellant with respect to each ground of rejection, and the basis therefor, with citations of the statutes, regulations, authorities, and parts of the Record relied on." 37 C.F.R. § 41.37(c)(1)(iv). Board rules further require that

“[t]he arguments shall explain why the examiner erred as to each ground of rejection contested by appellant.” *Id.* To the extent that Appellant seeks to advance any argument that does not comply with such requirement, it has not been considered.

In view of all of the foregoing, as well as the findings of the Examiner in the Final Office Action and the Answer, Appellant has failed to show error in the rejection of claims 1, 2, 8–11, 14, 15, 19, and 20.

Rejection 2. The Examiner rejected claims 5 and 13 as obvious over the Carpet Article, in view of Parisi, Zhou, the Argos Iron Article, Nottingham, and Holt. Final Act. 10–11. Appellant relies upon the same arguments described above in support of its appeal of this rejection. Appeal Br. 16. As we have not found such arguments to be persuasive, we determine that Appellant has not demonstrated reversible error with regard to the rejection of claims 5 and 13.

Rejection 3. The Examiner rejected claims 18 and 21 as obvious over the Carpet Article, in view of Parisi, Zhou, the Argos Iron Article, Nottingham, and O’Bryan. Final Act. 11–13. Appellant relies upon the same arguments described above in regard to claims 1, 2, 8–11, 14, 15, 19, and 20 (Rejection 1) in support of its appeal of this rejection. Appeal Br. 16. As we have not found such arguments to be persuasive, we determine that Appellant has not demonstrated reversible error with regard to the rejection of claims 18 and 21.

CONCLUSION

In summary:

Claims Rejected	Basis	Affirmed	Reversed
1, 2, 8–11, 14, 15, 19, and 20	§ 103(a), the Carpet Article, Parisi, Zhou, the Argos Iron Article, and Nottingham	1, 2, 8–11, 14, 15, 19, and 20	
5 and 13	§ 103(a), the Carpet Article, Parisi, Zhou, the Argos Iron Article, Nottingham, and Holt	5 and 13	
18 and 21	§ 103(a), the Carpet Article, Parisi, Zhou, the Argos Iron Article, Nottingham, and O’Bryan	18 and 21	
Overall Outcome		1, 2, 5, 8–11, 13–15, and 18–21	

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

AFFIRMED