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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAN G. SMITH and PETER ROBERTSSON

Appeal 2020-001147
Application 12/592,710
Technology Center 3700

Before CHARLES N. GREENHUT, MICHAEL L. HOELTER, and
ANNETTE R. REIMERS, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 2, 6–19, and 21–23. Claims 3–5, 20, 24, and 25 have been canceled. *See* Final Act. 1–2. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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 Abigo Medical AB. Appeal Br. 2.

STATEMENT OF THE CASE

The claims are directed to a method of treating a wound. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of treating a wound, comprising:
 - a) providing a wound dressing consisting of a hydrophobic fabric that is treated to bind microorganisms through hydrophobic interaction, wherein the hydrophobic fabric is a cellulose acetate gauze treated with a compound containing hydrophobic groups selected from the group consisting of dialkyl carbamoyl chloride, dioctadecyl carbamoyl chloride and alkyl ketene dimers, and wherein the wound dressing does not contain an antimicrobial substance;
 - b) placing the hydrophobic fabric so that it faces the wound; and
 - c) applying negative pressure therapy to the wound dressing, thereby treating the wound.

REFERENCES

The prior art relied upon by the Examiner:

Name	Reference	Date
Björnberg	US 4,617,326	Oct. 14, 1986
Smith	US 7,648,488 B2	Jan. 19, 2010
Han	CN 87101823 B ²	Oct. 5, 1988

REJECTION

Claims 1, 2, 6–19, and 21–23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Smith, Han, and Björnberg. Final Act. 3.

² The Examiner refers to this reference as “Han” and provides an English language translation therefor, which we shall refer to hereinafter.

OPINION

The Examiner finds that Smith discloses a method of treating a wound, the method comprising the steps of providing a wound dressing, placing the wound dressing so that it faces the wound, and applying negative pressure therapy to the wound dressing. Final Act. 3 (citing Smith 8:18–28; 5:17–19). The Examiner acknowledges that Smith does not disclose that the wound dressing consists of a fabric, wherein the fabric is a cellulose acetate gauze that does not contain an antimicrobial substance; however, the Examiner relies on Han for this missing limitation. *Id.* at 3–4 (citing Han p. 1, first para.; p. 2, third and sixth paras.; claims 1, 2). The Examiner concludes that it would have been obvious to a skilled artisan to modify the wound dressing of Smith to consist of a cellulose acetate gauze without an antimicrobial substance to “prevent wound adhesion.” *Id.* at 4.

The Examiner also acknowledges that Smith in view of Han does not disclose a wound dressing consisting of a hydrophobic fabric that is treated to bind microorganisms through hydrophobic interaction, wherein the hydrophobic fabric is treated with “a compound containing hydrophobic groups . . . consisting of dialkyl carbamoyl chloride, dioctadecyl carbamoyl chloride and alkyl ketene dimers.” Final Act. 3–4. However, the Examiner relies on Björnberg for this missing limitation. *Id.* at 5 (citing Björnberg 1:26–30, 2:12–19). The Examiner concludes that it would have been obvious to a skilled artisan to modify the wound dressing of Smith and Han by treating the wound dressing with a compound containing a hydrophobic group (i.e., “dioctadecyl carbamoyl chloride”) as taught by Björnberg, “to provide a more extensive removal of bacterial and other microorganisms from a wound site.” *Id.* at 5.

Appellant argues that “Björnberg never teaches or suggests modifying cellulose acetate gauze, or even cellulose fluff, to be hydrophobic.” Appeal Br. 4; *see also* Reply Br. 3. Appellant also points out that Björnberg, rather, uses a cellulose fluff that is a hydrophilic. Appeal Br. 5 (citing Björnberg 2:39–45); *see also* Reply Br. 3.

Regarding the latter assertion, the Examiner responds that “[t]he Examiner has not relied upon the bodily incorporation of the cellulose fluff of Björnberg to be made hydrophobic, but rather applying Björnberg’s teaching of the process of rendering a fabric hydrophobic through chemical treatment to the cellulose acetate wound dressing of Han.” Ans. 4. The Examiner, however, is silent as to whether the treatment of Han’s cellulose acetate with this hydrophobic compound would react the same as Björnberg’s treatment of cotton fabric with this compound. *See* Björnberg 2:12–19.

Appellant has the better position here. Björnberg discloses that cotton fabric “may be treated chemically” with a recited compound to “obtain a hydrophobic material.” Björnberg 2:12–19. However, Björnberg’s bacterial absorbing composition includes both a *hydrophobic cotton* component and a *hydrophilic cellulose* component. Appeal Br. 4, 5 (Björnberg “requires a hydrophilic component in [its] composition, such as cellulose fluff.”); *see also* Reply Br. 3 (“Björnberg requires a hydrophilic component in [its] composition along with a hydrophobic component and makes no teaching or suggestion to modify cellulose acetate to be hydrophobic.”). The cited portions of Björnberg never teach or suggest treating the hydrophilic *cellulose* material to become hydrophobic. Björnberg 2:39–45; *see also id.* at Abstr.; *id.* at 8:28–32 (“A composition according to claim 1 wherein the

hydrophilic material comprises soft paper, cotton, *cellulose fluff*,” (emphases added)); *id.* at 8:33–36 (“A composition according to claim 1 wherein the first component comprises *cotton* fabric, which has been rendered *hydrophobic* by chemical treatment with a dialkylcarbamoyl chloride.” (emphases added)); *id.* at 8:37–40 (“A composition according to claim 1 wherein the first component comprises *cotton* gauze which has been rendered *hydrophobic* by chemical treatment with dioctadecyl carbamoyl chloride.” (emphases added)).

As noted above, the Examiner does not direct us to any passage in Björnberg that discloses chemically treating a *cellulose acetate* or similar material through a hydrophobic interaction. The Examiner does not provide persuasive evidence or technical reasoning to explain why a skilled artisan would have a reasonable expectation that Björnberg’s process of converting a hydrophilic material to become hydrophobic would be successful when applied to the cellulose acetate wound dressing of Smith and Han. *See* MPEP § 2143.02.

In view of the foregoing reasons, we agree with Appellant that, on the record presently before us, the Examiner has not carried the burden of establishing unpatentability with respect to claims 1, 2, 6–19, and 21–23 based on Smith, Han, and Björnberg.

CONCLUSION

The Examiner’s rejection is reversed.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 6–19, 21–23	103(a)	Smith, Han, Björnberg		1, 2, 6–19, 21–23

REVERSED