

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 42

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM L. MELBYE, SUSAN K. NESTEGARD, LEIGH E. WOOD,
MARVIN D. LINDSETH and DALE A. BYCHINSKI

Appeal No. 2000-2013
Application No. 08/766,544

HEARD: November 6, 2002

Before GARRIS, WALTZ, and MOORE, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 17 through 21, 26 and 27 as amended subsequent to the final rejection (see the amendment dated Mar. 21, 2000, Paper No. 32, entered as per the Answer, page 2, ¶(4)).¹ Claims 17-21, 26 and 27 are the only claims pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

¹All reference to the Answer is to the Supplemental Examiner's Answer dated May 22, 2002, Paper No. 39.

Appeal No. 2000-2013
Application No. 08/766,544

According to appellants, the invention is directed to a process for forming mechanical fastener hook materials by deforming, without the need for supports, the tops of thermoplastic projections using heat and pressure to form hook heads (Brief, page 6). A copy of illustrative independent claim 17 is attached as an Appendix to this decision.

The examiner has relied upon the following references as evidence of obviousness:

| | | |
|--------------------------|-----------|---------------|
| Doleman et al. (Doleman) | 3,590,109 | June 29, 1971 |
| Hamano | 3,718,725 | Feb. 27, 1973 |

The claims on appeal stand rejected under the first paragraph of 35 U.S.C. § 112, "as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art" that appellants had possession of the claimed subject matter (Answer, page 4). The claims on appeal also stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hamano in view of Doleman (*id.*).

We reverse all of the rejections on appeal essentially for the reasons stated in the Brief, Reply Brief, and as set forth below.

OPINION

A. *The Rejection under 35 U.S.C. § 112, ¶1*

The examiner finds that the negative limitation added during prosecution of claim 17 is not supported by the original disclosure (Answer, page 4). The examiner finds that there is no suggestion in the original disclosure that appellants had possession of the concept of forming "without supports for the projections" in the context of appellants' own process (*id.*).

Whether the requirement for an adequate written description has been met is a question of fact and thus depends on the particular facts of this appeal. See *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993).² Appellants and the examiner agree that there is no literal basis for the negative claim limitation recited in claim 17 on appeal (Brief, page 9, footnote 1; Answer, page 6). However, the initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention, regardless of the ground, rests with the examiner. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Therefore it is incumbent

²See also *Ex parte Parks*, 30 USPQ2d 1235, 1236 (Bd. Pat. App. & Int. 1994); *cf.*, *Ex parte Grasselli*, 231 USPQ 393, 394 (Bd. Pat. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984).

Appeal No. 2000-2013
Application No. 08/766,544

upon the examiner to establish that the originally filed disclosure would not have reasonably conveyed to one of ordinary skill in the art that appellants had possession of the subject matter now in question, and not merely establish that there is no literal support for the now claimed subject matter. See *In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978).

We determine that the examiner has not met the initial burden of establishing a *prima facie* case of unpatentability. The examiner states that the original specification and drawings omit "rod-like supports," as described by Hamano, but do not reasonably convey that "all forms of support," as broadly claimed, can be excluded from the claimed subject matter (Answer, page 7).³ However, as correctly argued by appellants (Brief, pages 9-10), the originally filed disclosure, including the specification, the examples in the specification, and drawings, teaches projections without any form of support (e.g., see Figures 3A, 3B, and the specification, page 9, ll. 16-18). Appellants also discuss Hamano at page 2, ll. 14-23, of the specification, indicating that Hamano

³The examiner also argues that appellants are claiming the lack of supports "into and through a gap" while Hamano does not teach any supports for the only embodiment which clearly defines a gap between surfaces (Answer, page 7). However, we agree with appellants (Reply Brief, page 4) that this argument does not appear to be relevant to the issue under 35 U.S.C. § 112.

Appeal No. 2000-2013
Application No. 08/766,544

teaches the use of rods to maintain the upstanding position of the rows of loops. Furthermore, appellants teach that, due to the qualities of molecular orientation of the thermoplastic material, the stems of the presently claimed projections "remain erect during the deforming step g) which preferably involves the application of heat to the stem tips." See the specification, page 5, ll. 25-32. Accordingly, we determine that these teachings from the original disclosure would have reasonably conveyed to one of ordinary skill in this art that appellants were in possession of the claimed process without the need for any supports for the projections.

For the foregoing reasons, we determine that the examiner has not met the initial burden of establishing failure to fulfill the written description requirement of 35 U.S.C. § 112. Accordingly, the rejection of claims 17-21, 26 and 27 under 35 U.S.C. § 112, first paragraph, is reversed.

B. The Rejection under 35 U.S.C. § 103(a)

The examiner finds that Hamano discloses the "basic claimed process" with the exception, as discussed above, that Hamano teaches the use of rods or mandrels as supports for the loops or projections (Answer, page 4). The examiner further finds that Hamano teaches moving a web backing into a gap without any supports for the projections, although this feature is taught in an

embodiment where solvent is used to soften the tip portion of the projections, not where heat is used (*id.*). From these findings, the examiner concludes that it would have been obvious to have moved a web backing into a gap without any supports for the projections while using a heated roll to reshape the projections "since Hamano suggests that reshaping the projections using solvent softening or heating are equivalent softening alternatives." Answer, page 5. The examiner also concludes that it would have been obvious to omit the solvent softening step and provide a heat softening step "for the economic and environmental benefit of eliminating solvent emissions into the atmosphere." *Id.*

As correctly argued by appellants (Brief, page 11; Reply Brief, page 4), Hamano does not teach that the chemical treatment is equivalent to the heat softening/pressure embodiment. Hamano discusses and claims each embodiment separately (see col. 1, ll. 23-31; col. 2, ll. 17-34; and claims 1 and 3). Hamano teaches that the loops enter the solvent bath upside down, exposing only the summits of the loops to the solvent (col. 2, ll. 24-27 and Figure 8). Thus the chemical treatment embodiment of Hamano, while accomplishing the same function as the heat treatment embodiment, has not been disclosed or suggested as an equivalent process. On

this record,⁴ the effect of the different process steps in the chemical treatment embodiment has not been shown to be "equivalent" to the heat treatment embodiment and the examiner has not presented any convincing evidence or reasoning to support the determination that these two embodiments of Hamano are "equivalent." Although Hamano never expressly discloses whether supports are used or necessary for the loops of the chemical treatment embodiment, one of ordinary skill in this art would have reasonably expected that supports are unnecessary since the loops enter into the solvent bath in an upside down position (see Figure 8). However, it has not been shown that one of ordinary skill in this art would have reasonably expected that supports would have been unnecessary in the heat treatment embodiment of Figures 1-7. As also correctly argued by appellants (Brief, page 11), the examiner is ignoring the specific teachings of Hamano that supports must be used to "maintain the loops in their upstanding position" during the heat treatment embodiment. Col. 1, ll. 62-66; see also claim 1.

⁴The examiner's statements regarding "molecular mobility" and the equivalence of solvent softening and heat softening have been considered (Answer, page 8). However, these statements have not been supported by any evidence on this record, as the vague reference to "polymer textbooks" (Answer, page 8) has not been made of record.

Appeal No. 2000-2013
Application No. 08/766,544

The examiner has also not supplied any convincing evidence or reasoning to support the conclusion that it would have been obvious to omit the solvent softening step and provide a heat softening step due to economic and environmental considerations (Answer, page 5). The examiner has not factually established that the solvent emissions would have been harmful to the atmosphere or that heating is more economical than use of a solvent bath.

The examiner has applied Doleman for the teaching of forming a thermoplastic web backing from the same material as the upstanding projections (Answer, page 5). Accordingly, Doleman does not remedy the deficiencies discussed above in Hamano.

For the foregoing reasons and those stated in the Brief and Reply Brief, we determine that the examiner has failed to establish a *prima facie* case of obviousness in view of the reference evidence. Therefore the examiner's rejection under 35 U.S.C. § 103(a) cannot be sustained.

C. Summary

The rejection of claims 17-21, 26 and 27 under the first paragraph of 35 U.S.C. § 112 is reversed. The rejection of claims 17-21, 26 and 27 under 35 U.S.C. § 103(a) over Hamano in view of Doleman is reversed.

Appeal No. 2000-2013
Application No. 08/766,544

The decision of the examiner is reversed.

REVERSED

| | | |
|-----------------------------|---|-----------------|
| BRADLEY R. GARRIS |) | |
| Administrative Patent Judge |) | |
| |) | |
| |) | |
| |) | |
| |) | BOARD OF PATENT |
| THOMAS A. WALTZ |) | APPEALS |
| Administrative Patent Judge |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| |) | |
| JAMES T. MOORE |) | |
| Administrative Patent Judge |) | |

TAW/jrg

Appeal No. 2000-2013
Application No. 08/766,544

WILLIAM L. HUEBSCH
3M OFFICE OF PATENT COUNSEL
P. O. BOX 33427
ST PAUL, MN 55133-3427

APPENDIX

17. A method of continuously forming a smooth hook strip for a hook-and-loop type mechanical fastener comprising:

a) providing a web backing having an array of upstanding substantially uniformly spaced thermoplastic projections which web backing and projections are formed of the same thermoplastic material, the thermoplastic material having a flow temperature, each projection having a stem portion and a top portion, said projection having a given first cross-sectional dimension, and height, said web backing and projections combined having a given second height;

b) providing a gap formed by a first surface and a second surface, the gap being less than the second height, a first surface being heated to a temperature above the flow temperature of the thermoplastic material forming the projections; and

c) moving the web backing into and through the gap without any supports for the projections such that the thermoplastic material forming the top portion of the projections are deformed, such that the projections have a second cross-sectional dimension and height which height is less than the first height and which second cross-sectional dimension is larger than the first cross-sectional dimension, by the heated surface under pressure, providing hooks with upstanding stem portions and hook heads having a smooth upper surface, said hooks formed by the gap having a height of from 0.5 to 5 mm and the ratio of the height of the hook to the diameter of the stems being from 2:1 to 10:1.

Appeal No. 2000-2013
Application No. 08/766,544

