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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FRANCESCO FERRAIOLO

Appeal 2018–003186
Application 13/389,376
Technology Center 1700

Before BEVERLY A. FRANKLIN, KAREN M. HASTINGS, and
N. WHITNEY WILSON, *Administrative Patent Judges*.

WILSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner’s
February 3, 2017 decision rejecting claims 1 and 11–25 (“Non-Final Act.”).
We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ Appellant identifies Officine Maccaferri S.p.A. as the real party in interest
(Appeal Br. 1).

CLAIMED SUBJECT MATTER

Appellant's disclosure relates to a production plant for a ground covering structure comprising a plant inlet zone **I** and a plant outlet zone **O** for a grid reinforcing member **10** as shown in FIG. 1 below:

FIG. 1

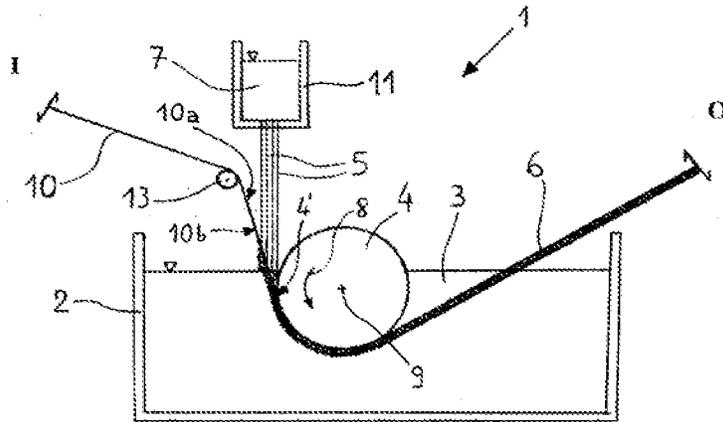


Fig. 1 is a diagram of a plant for the production of a ground covering structure of the application on appeal.

The plant further comprises movement means **4** to move grid reinforcing member **10** along a predetermined path from the inlet zone to the outlet zone, supply means **11** for the supply of plastics material **7** in the fluid state in the form of threads **5** to reinforcing member **10**, disposed along the predetermined path, and cooling means **2** and **3** for cooling threads **5** which are tangled on the grid reinforcing structure (Abstract).

Appellant's disclosure also relates to a ground covering structure produced by the production plant described above, as detailed in claim 15. Further details of the claimed inventions are set forth in representative claims 1 and 15, which are reproduced below from the Claims Appendix to the Appeal Brief:

1. A production plant for a ground covering structure, said plant comprising:

a plant inlet zone and a plant outlet zone for a grid type reinforcing member;

a moving apparatus designed in operation to move the grid type reinforcing member along a predetermined path from the inlet zone to the outlet zone;

a supply for supplying plastics material in the form of threads in a fluid state, the threads in the fluid state being supplied to the grid type reinforcing member; and

a cooler for cooling, in operation, the plastics material in the form of threads and thus to form a tangled plastics structure on the grid type reinforcing member;

wherein the inlet zone and the outlet zone are disposed opposite one another along the predetermined path with respect to the supply.

15. A ground covering structure produced by the production plant according to claim 1, wherein the ground covering structure comprises the plastics structure with threads tangled on the grid type reinforcing member disposed in an intermediate position with respect to a thickness of the covering structure, and wherein a substantially uniform concentration of threads on one side of the grid type reinforcing member is substantially denser than a substantially uniform concentration of threads on the other side of the grid type reinforcing member.

REJECTIONS

I. Claim 15 is rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Lin.²

² Lin et al., US 5,691,036, issued November 25, 1997.

II. Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin in view of Bachman.³

III. Claims 1, 11–14, and 17–25 are rejected under 35 U.S.C. § 103(a) as unpatentable over Resen⁴ in view of Yun⁵ and Siniscalco.⁶

DISCUSSION

Rejections I and II. Appellant makes several arguments urging reversal of the § 102/§ 103 rejection of claim 15 over Lin. First, Appellant argues that because claim 15 depends from claim 1 (i.e. it recites a ground covering structure made with a production plant according to claim 1) and Lin does not disclose such a production plant, it cannot anticipate the claim (Appeal Br. 5). This argument, on its own, is not persuasive. As noted by the Examiner (Ans. 6), claim 15 is properly viewed as a product-by-process claim.⁷ The Federal Circuit has stated that, “[i]f the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1317 (Fed. Cir. 2006) (quoting *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985)). Moreover, “when the PTO shows sound basis for believing that the products

³ Bachmann, US 7,465,371 B2, issued December 16, 2008.

⁴ Rasen et al., US 4,181,450, issued January 1, 1980.

⁵ Yun et al., US 2006/0116040, published June 1, 2006.

⁶ Siniscalco, IT 1257665, published February 1, 1996.

⁷ “A product-by-process claim is ‘one in which the product is defined at least in part in terms of the method or process by which it is made.’” *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1315 (Fed. Cir. 2006) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 158 (1989)).

of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (citation omitted). Thus, the mere fact that Lin does not specifically disclose the production plant of claim 1 does not mandate reversal of the anticipation or obviousness rejections of claim 15.

“A prior art reference anticipates a patent claim under 35 U.S.C. § 102(b) if it discloses every claim limitation.” *In re Montgomery*, 677 F.3d 1375, 1379 (Fed. Cir. 2012) (citing *Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1336–37 (Fed. Cir. 2010)). Appellant argues that Lin does not disclose “a substantially uniform concentration of threads on one side of the grid type reinforcing member that is substantially denser than a substantially uniform concentration of threads on the other side of the grid type reinforcing member” (Appeal Br. 7–8).

The Examiner finds that this limitation is met because Lin discloses a cushioning material **20** having a central scrim **23** and two outer fibrous layers **21a** and **21b**, as shown in FIG. 2:

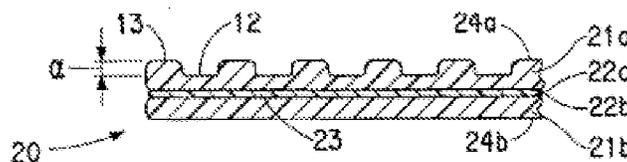


FIG. 2

Lin’s FIG. 2 show a partial cross-section view of the cushioning material of Lin’s invention.

The Examiner further finds that one of the fibrous layers **21a** or **21b** is compressed so that it is more dense than the other layer (Non-Final Act. 2, citing Lin 2:61–3:18, 3:60–4:20), meeting the claim requirement that there is “a substantially uniform concentration of threads on one side of the grid type

reinforcing member that is substantially denser than a substantially uniform concentration of threads on the other side of the grid type reinforcing member.”

Appellant argues that because of the shape of the fibrous layers, compressing one of those layers would not result in a uniform concentration of threads because the compression would be localized around depressions 12 (Appeal Br. 5). Moreover, according to Appellant, the areas which were not compressed would not have had a different density than the other fibrous layer (*id.*). The Examiner does not dispute Appellant’s interpretation of Lin’s disclosure, but instead construes the claim such that it does not require substantially uniform concentration of threads (density) on one side of the grid type because “at least at those areas of densification, the structure of Lin would be the same as the claimed structure” (Ans. 7).

It is well established that “the PTO must give claims their broadest reasonable construction consistent with the specification . . . Therefore, we look to the specification to see if it provides a definition for claim terms, but otherwise apply a broad interpretation.” *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007). To the extent possible, claim terms are given their ordinary and customary meaning, as they would be understood by one of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Idiosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification. *Id.* at 1315–16.

In this instance, we agree with Appellant that the broadest reasonable interpretation of the claim language, in light of the Specification, is that the concentration of the threads on each side of the grid type reinforcing member must be substantially uniform (i.e. there cannot be substantial variations in thread concentration on either side of the grid type reinforcing member). This plain language supported by the drawing of FIG. 6, which shows substantially uniform concentration of threads on either side of grid member **10** in portions **60** and **61**:

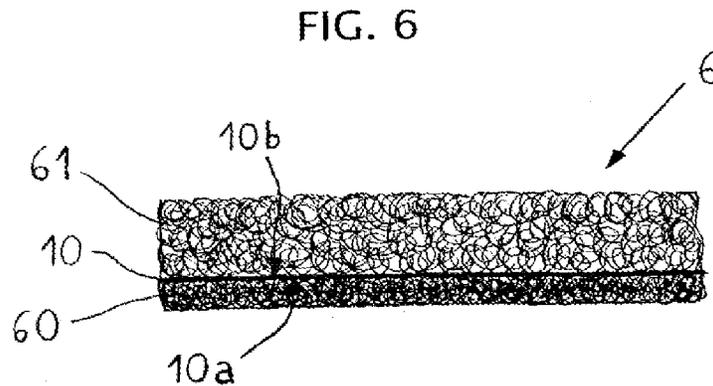


Fig. 6 is a partial view in cross-section of a ground covering structure of the application on appeal.

Accordingly, we conclude that claim 15 requires that the threads on either side of the grid member be of a substantially uniform concentration and that Appellant has persuasively demonstrated error in the anticipation rejection of claim 15 over Lin. With regards to the obviousness rejection over Lin, the Examiner has not made findings or explained why it would have been obvious to modify Lin to provide a uniform thread concentration on either side of the grid member.

Accordingly, we reverse the rejection of claim 15 as anticipated by or obvious over Lin. We also reverse the rejection of claim 16, which depends

from claim 15, over Lin in view of Bachmann, as the Examiner does not rely on Bachmann in such a way as to remedy the deficiencies of Lin as discussed above.

Rejection III. The Examiner finds that Rasen discloses each of the limitations of claim 1, except that Rasen does not disclose a cooler for cooling the plastics material in the form of threads (Non-Final Act. 4, citing Rasen, Fig. 1, 3:35–4:21). The Examiner further finds that Yun discloses a production plant for forming a geotextile which includes a cooling means for cooling extruded plastic threads which are extruded onto a base element. The Examiner determines that it would have been obvious to have employed Yun’s cooler in Rasen’s plant because Yun teaches that the cooling means forms a durable and stable structure for use in forming geogrids (Non-Final Act. 4–5).

Appellant argues that the Examiner has not made out a prima facie case of obviousness because “the Examiner has not articulated what modification of the primary reference is being made and how such modification reads on claim 1” (Appeal Br. 13). This argument is not persuasive. The Examiner explicitly states (Non-Final Act. 4) that the modification needed to Rasen is the addition of a cooler, and that the addition of such a cooler would read in claim 1.

Appellant further argues that the structure formed by Yun is different from the structure formed by the claimed plant, and that certain elements used by Yun are different from the claimed elements, such that their use in Rasen would not result in the claimed invention (Appeal Br. 13). This argument is also not persuasive, because the only element from Yun which

is relied on by the Examiner is the cooler, which Appellant does not allege is different from the cooler recited in claim 1.

Finally, Appellant argues that Rasen requires that its plastic filaments must be hot in order for them to fuse with each other and that, therefore, a person of skill in the art would not have combined Yun's cooler with Rasen's device (Appeal Br. 13–14). This argument is not persuasive, essentially for the reasons set forth in the Answer. In particular, the Examiner finds (Ans. 8–9), that while Rasen does not employ a cooler, it does permit its fibers to cool because “[a]ll extruded fibers cool when they are no longer in the extruding apparatus, unless they are subjected to further heating. Unless the fibers cool they would remain soft and molten and continuously subject to deformation.” Appellant does not persuasively dispute this finding (*see*, Reply Br. 1–2). Therefore, Rasen does not teach away from the use of a cooler, as taught by Yun.

Appellant makes similar arguments with regards to claims 17 and 24, which are not persuasive for essentially the same reasons.

With regards to claim 18, we agree with the Examiner that the claim does not structurally distinguish between cables and wires and, therefore, the prior art adequately describes those features.

With regards to Appellant's remaining arguments, we do not find them persuasive, essentially for the reasons set forth by the Examiner in the Answer.

CONCLUSION

We REVERSE the rejection of claim 15 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Lin.

We REVERSE the rejection of claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Lin in view of Bachman.

We AFFIRM the rejection of claims 1, 11–14, and 17–25 under 35 U.S.C. § 103(a) as unpatentable over Resen in view of Yun and Siniscalco.

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-IN-PART