

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

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT STANLEY AMPULSKI

Appeal No. 2003-0814
Application No. 09/888,756

ON BRIEF

Before WARREN, DELMENDO and PAWLIKOWSKI, **Administrative Patent Judges**.

PAWLIKOWSKI, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 2, and 4-17.

On page 2 do the brief, appellant states that the claims stand and fall together. We therefore consider claim 1 in this appeal. See 37 CFR § 1.192(c)(7 and 8)(2000).

Claim 1 is representative of the subject matter on appeal and is set forth below:

1. A process for making a papermaking belt comprising a reinforcing element and a resinous framework joined thereto, the process comprising the steps of:

- (a) providing a forming surface having a longitudinal direction and a transverse direction;
- (b) providing an extrudable resinous material;
- (c) providing at least a first extrusion die structured to extrude the resinous material, wherein the at least first extrusion die is configured to move relative to the forming surface in at least a first direction.
- (d) supplying the resinous material into the at least first extrusion die and extruding the resinous material therefrom onto the forming surface in a pre-selected pattern comprising a plurality of discrete protuberances, thereby forming a resinous framework;
- (e) continuously moving the at least first extrusion die relative to the forming surface in the first direction;
- (f) causing the resinous framework and the reinforcing element to join together; and
- (g) solidifying the resinous framework joined to the reinforcing element, thereby forming the papermaking belt.

Claims 1-2 and 4-17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Trokhan in view of Rodish.

We refer to pages 3-4 of the answer regarding the examiner's position in this rejection. At the top of page 4, the examiner acknowledges that Trokhan fails to teach "applying the plurality of resin beads with the moving extrusion dies." The examiner states "it would have been obvious to one skilled in the art use any conventional means of applying the resin pattern to the fabric with the expectation of producing the desired result." The examiner states that Rodish teaches "applying resin pattern to a moving fabric web, where the resin

pattern is formed by reciprocating two extruder dies across the moving web, wherein each extruder die extrudes a plurality of resin beads, such that the desired pattern is formed on the web." The examiner concludes that it would have been obvious to substitute the resin pattern formation method of Rodish, for that of Trokhan, in the process of Trokhan, with the expectation that the method of Rodish would have formed the desired resin pattern on the fabric web of Trokhan since it is shown by Rodish that such a method can be used to form any desired resin pattern on a fabric web.

Beginning on page 2 of the brief, appellant argues that Rodish is not in the field of appellant's endeavor. Appellant states the invention is considered with papermaking belts used for making an absorbent paper products and processes for making such belts. Appellant argues that Rodish is concerned with strengthening paper or textile fabric by coating the paper or other substrate with a mesh-like pattern of plastic reinforcing stripes or strands which increases the tensile strength of the substrate. Appellant also argues that Rodish is not reasonably pertinent to the particular problem with which the inventor was concerned. Appellant argues that the present invention is to provide a novel process for making a belt, thereby reducing the amount of the resinous material required to construct a similar papermaking belt of the prior art. Appellant argues that the prior art teaches a process wherein a continuous, monotonous layer of resin is applied to a reinforcing element and the resinous layer is then selectively cured and uncured portions of the resin are subsequently removed to leave a resinous pattern formed by the cured portions of the resin joined to the reinforcing element. Appellant refers to Trokhan as such a prior art teaching. We agree. That is, the Background section

of Trokhan illustrates that in processes for manufacturing paper products, papermaking belts are used. See column 1, line 55 - column 3, line 49. An objective of Trokhan is to buy a process for improving the belt life of papermaking belts. See column 4, lines 36-40. Details of how resinous material is supplied is set forth in column 27, beginning at line 35. Here, Trokhan discloses that third set in the process is the application of a coating of resin to the reinforcing structure. In a preferred method, the liquid resin is applied to the reinforcing structure at two stages. The first stage at which resin is applied is at the place indicated by extrusion header 79 illustrated in Figure 13. At the first stage, extrusion header 79 is used to fill the interstices in the reinforcing structure 33 from the backside. This permits a suitable amount of photosensitive resin to adhere to the backside of the reinforcing structure 33 so the same can be imparted with a texture on the backside in the steps which will be subsequently described. Trokhan states "it is necessary that liquid photosensitive resin 70 be evenly applied across the width of reinforcing structure 33 and that the requisite quantity of material be worked through the interstices 39 and into all available void volume of the reinforcing structure 33 as the design of the papermaking belt 10 requires." A fifth step in the process is controlling the thickness of the coating to a per-selected value. See column 28, lines 30-32. A sixth step in the process comprises positioning a mask 74 in contacting relation with the liquid photosensitive 70. The purpose of the mask 74 is to shield certain areas of liquid photosensitive resin from exposure to light. In this way, a per-selected pattern can be chosen. See column 28, lines 49-59.

Trokhan discloses that a preferred method for forming an improved papermaking belt having a textured backside involves use of a woven element which is constructed of strands of differing ultraviolet light transmission characteristics. The woven element is constructed in such a manner that the strands on top of the resinous woven element transmit ultraviolet light to high degree, while strands on the bottom or the backside do not transmit, but instead absorb ultraviolet light. This causes the ultraviolet light to be transmitted throughout the photo sensitive resin network except in the portion of the network which lies under the bottom strands. As a result, the photosensitive resin which lies under the bottom strands is not cured, and can be removed during the final steps set out above, leaving a series of depressions in the backside of the papermaking belt under the absorptive strands. See column 30, lines 43-61.

The aforementioned disclosure of Trokhan is a description of how the papermaking belt is formed. The papermaking belt is generally comprised of two primary elements: a solid polymeric resin framework 32 and a reinforcing structure 33, both of which are first seen together in FIG. 4. The resin framework 32 has a first surface 34 for contacting the fiber webs to be dewatered, a second surface 35 opposite the first surface 34 for contacting the dewatering machinery employed in the dewatering operation, and conduits 36 extending between the first surface 34 and the second surface 35 for channeling water from the fiber webs which rest on the first surface 34 to the second surface 35 and to provide areas into which the fibers of the fiber web can be deflected and rearranged. See column 19, lines 14-31. The portion of the resin framework 32 which is exposed on the top surface of the papermaking belt and which comprises a solid

portion of the first surface 34 of the framework 32 resembles a net in appearance and is referred to as the "top side network surface." The portion of the framework 32 which is exposed on the backside of the papermaking belt 10 referred to as the "backside network surface." As seen in FIGS. 2 and 4, the top side network surface 34a is macroscopically monoplanar, patterned, and continuous. See column 20, lines 43-68 and column 21, lines 1-7. It is the aforementioned top side network surface and backside network surface that results from the process for making the papermaking belt set forth in columns 25-31 of Trokhan. It is true that Rodish is directed to a method and apparatus for providing a substrate such as a textile fabric or a paper sheet with a mesh like pattern of reinforcing plastic stripes or strands. The invention of Rodish is particularly useful for reinforcing paper used for manufacturing articles carrying paperbacks. See column 1, lines 9-14. An object of Rodish is to provide a method and apparatus for coating a surface of linearly displaced web of paper or other substrate material with a regular mesh-like pattern of plastic reinforcing stripes or strands, preferably diamond-shaped or lozenge-shaped, which increases the tensile strength of the substrate in a lateral as well as longitudinal direction. See column 2, lines 15-24. Hence, the purpose of coating the web of paper in Rodish with a mesh-like pattern or plastic reinforcing stripes or strands is for reinforcing the paper product. The examiner has not explained how coating the reinforcing structure 33 of Trokhan using the method of Rodish would result in the paper contacting surface 11 of the papermaking belt 10 as depicted in FIG. 2 and FIG. 3 of Trokhan while achieving the function as described in column 19, beginning at line 14 of Trokhan. That is, the resin framework 32 has a first surface 34 for contacting

the fiber webs to be dewatered, a second surface 35 opposite the first surface 34 for contacting the dewatering machinery employed in the dewatering operation, and conduits 36 extending between the first surface 34 and the second surface 35 for channeling water from the fiber webs which rest on the first surface 34 to the second surface 35 and to provide areas into which the fibers of the fiber web can be deflected and rearranged. On page 4 of the answer, the examiner states that it would have been obvious to substitute the resin pattern formation method of Rodish for that used in Trokhan with the expectation that the method of Rodish would have formed the desired resin pattern on the fabric web of Trokhan since it is shown by Rodish that such a method can be used to form any desired resin pattern. The examiner states "The use of the Rodish method in Trokhan to form the patterns presented in Trokhan would have interconnected the resin beads from the first and second extrusion dies and formed the claimed super-knuckles at the cross-over points." The examiner has not explained how the expectation to use the method of Rodish would have formed the desired pattern on the fabric back of Trokhan would have been a reasonable one. In this context, we agree with appellant's arguments set forth on pages 4-5 of the brief. That is, the examiner has proposed modification of Trokhan by substituting the method of Rodish is not supported by an explanation that the resultant pattern would provide the function necessary in Trokhan. Also, the examiner provides for no motivation other than "the substitution of one known equivalent technique for another would have been obvious even if the prior art does expressly suggest the substitution" (answer, pages 5-6) is in error. The examiner has provided no basis that the coating technique of Rodish is an art equivalent to the

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coating technique in Trokhan. For these reasons, we reverse the rejection.

REVERSED

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| Administrative Patent Judge |) | |
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| ROMULO H. DELMENDO |) | INTERFERENCES |
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BAP/sld

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