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EXAMINER

DILLON, DANIEL P

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREW STEPHENS, FRANCISCO MORALES, and
TADEUSZ RYBKA

Appeal 2020-001392
Application 15/245,948
Technology Center 1700

Before TERRY J. OWENS, BRADLEY W. BAUMEISTER,
and BRIAN D. RANGE, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), the Appellant¹ appeals from the Examiner's decision to reject claims 1–15 and 17–25. 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. The Appellant identifies the real party in interest as Tangent Technologies LLC (Appeal Br. 2).

CLAIMED SUBJECT MATTER

The claims are directed to a simulated natural wood-grained polymer substrate. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A simulated natural wood-grained polymer board having a first side and a second side spaced apart from the first side, the spacing between the first and second sides defining one of a width or a height of the board, the first and second sides extending along a length direction between a first end and a second end, the first and second ends defining a length of the board, the board comprising:
 - a first set of polymer layers extending along the length direction and containing a first colorant, a majority of the first set of polymer layers extending along the length of the entire board;
 - a second set of polymer layers extending along the length direction and containing a second colorant different than the first colorant, a majority of the second set of polymer layers extending along the length of the entire board; and
 - wherein a plurality of individual layers of the first and second sets of polymer layers alternate within the board and extend along a substantially uninterrupted curvilinear path originating proximate the first side of the board and terminating proximate the second side of the board.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Rohatgi	US 2003/0021915 A1	Jan. 30, 2003
Franco	US 2004/0038002 A1	Feb. 26, 2004
Piedboeuf	US 7,204,944 B2	Apr. 17, 2007
Sudano	US 2011/0177291 A1	July 21, 2011

REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1, 10, 21, and 25 over Piedboeuf; claims 1–4, 6, 9–12, 15, and 17–25 over Piedboeuf in view of Sudano; claim 5 over Piedboeuf in view of Sudano and Franco; and claims 7, 8, 13, and 14 over Piedboeuf in view of Sudano and Rohatgi.

OPINION

We need address only the independent claims (1, 10, 21, and 25)

Rejection over Piedboeuf

Piedboeuf discloses “a process for creating color effects in extrudable material” (col. 1, ll. 9–10). The process comprises:

providing [from extruders (106)] a first flow of viscous material of a first color and a second flow of viscous material of a second color, the second color being different from the first color. Next, the first and second flows are combined [in a feed block (104)] to form a stream of viscous material, where the stream is characterized by a first band of the first color and a second band of the second color, the second band being adjacent to the first band. The stream of viscous material is fed through a static mixer [(108)] such that, upon exiting the static mixer, the stream is further characterized by a third band of a third color, the third color being different from the first and second colors, the third band being located between the first and second bands [(col. 1, ll. 51–63; Figs. 1, 5B)].

“[U]pon exit from the static mixer **108**, only a partial mixing of the different colored bands of the multi-band stream has occurred, creating a blended, gradation in the colors of the multi-band stream” (col. 6, ll. 36–39; Fig. 6A). “[T]he sheets of plastic characterized by the color gradation effects may be thermoformed into pedal boats, kayaks, canoes or other similar watercraft products” (col. 9, ll. 12–15).

The Examiner finds (Ans. 29):

Although the feed block of Piedboeuf [(104; Fig. 2)] and that of Appellant [(125; Fig. 2)] are different, the wood-grained appearance results from the mixing done in the helical mixer and as such because Piedboeuf teaches the mixing and layering in the static mixer 108 results in a product with multiple bands with color variation as claimed, it is this final product which the examiner considers as equivalent to the polymer layers which are in appellant's claimed invention.

The Examiner does not establish that Piedboeuf's products, merely due to having multiple bands with color variation, are equivalent to the Appellant's simulated natural wood grained products.

The Examiner finds that Piedboeuf's products "include kayaks and canoes, which one of ordinary skill in the art would appreciate may simulate wood grain" (Ans. 31), and maintains that because the Piedboeuf reference, taken alone, teaches the variations of the colorants in the layers, the examiner concludes that the product based on the teachings in the reference renders obvious a simulated wood-grain appearance" (Ans. 32).

The Examiner does not establish that even if kayaks and canoes can have a simulated wood grain appearance, Piedboeuf would have suggested forming the streams of viscous material such that the product has that appearance. Nor does the Examiner explain how one of ordinary skill in the art would have carried out Piedboeuf's process in a way that produces a product having a simulated wood grain appearance.

Rejection over Piedboeuf in view of Sudano

Sudano discloses "a co-extrusion process for making decorative mouldings having a simulated wood appearance and a given profile" (¶ 7) by:

mixing a base material [(10)] and colour particles [(12)] to form a mixture [(14)], the base material comprising rigid polymer and the colour particles having a different colour from the base material and a higher melt temperature than the base material;

heating and displacing the mixture using a feed screw [(18)] such that the colour particles move helically along the trajectory of the feed screw while avoiding backflow and melting to thereby create corresponding helical vein segments [(26)] within the base material;

forcing the mixture through a tubular channel [(24)] while controlling heat and shear conditions such that the helical vein segments remain substantially intact;

feeding the mixture into a die having at least a first tubular inlet [(30)] communicating with the tubular channel, a first outlet [(32)] having a planar shape corresponding to the given profile, and a first cavity [(28)] in between the inlet and the outlet, the cavity having a form to flatten and widen the mixture to produce a planar surface coating at the outlet wherein the helical vein segments are transposed into two-dimensional nested arches [(48)] simulating wood appearance; and

co-extruding the surface coating onto a first side of a core comprising cellular polymer material, thereby producing the decorative mouldings. [(¶¶ 8–12, 43–51; Figs. 1–3, 6)]

“The Examiner contends that because both Piedboeuf and Sudano teach co-extrusion *and layered products of various color(s)*, it would have been obvious to make the product of Piedboeuf of colors simulating natural wood per Sudano for the purpose of avoiding the disadvantages [of using wood instead of polymers (Final Rej. 9)] as taught by Sudano” (Ans. 33).

The Examiner does not address the differences between Piedboeuf’s and Sudano’s processes and explain how, regardless of those differences, Sudano would have led one of ordinary skill in the art to use Piedboeuf’s process to made a simulated natural wood product.

Thus, the record indicates that the Examiner’s rejections are based upon impermissible hindsight in view of the Appellant’s disclosure. *See In*

re Warner, 379 F.2d 1011, 1017 (CCPA 1967) (“A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art”). Accordingly, we reverse the rejections.

CONCLUSION

The Examiner’s rejections are reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 10, 21, 25	103	Piedboeuf		1, 10, 21, 25
1–4, 6, 9–12, 15, 17–25	103	Piedboeuf, Sudano		1–4, 6, 9–12, 15, 17–25
5	103	Piedboeuf, Sudano, Franco		5
7, 8, 13, 14	103	Piedboeuf, Sudano, Rohatgi		7, 8, 13, 14
Overall Outcome				1–15, 17–25

REVERSED