

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

Andrew Stephens

Application No. 15/245,948

Filed: August 24, 2016

Confirmation No. 1690

Group Art Unit: 1783

Examiner: DILLON, Daniel P.

For: WOOD-GRAINED POLYMER SUBSTRATE

**SUPPLEMENTAL AMENDMENT
AND RESPONSE TO OFFICE ACTION**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Commissioner:

In response to the Office Action mailed December 15, 2017, please consider the following:

Amendments to the Claims begin on page 2 of this paper; and

Remarks begin on page 8 of this paper.

Electronic Patent Application Fee Transmittal

Application Number:	15245948			
Filing Date:	24-Aug-2016			
Title of Invention:	WOOD-GRAINED POLYMER SUBSTRATE			
First Named Inventor/Applicant Name:	Andrew Stephens			
Filer:	Mark J. Nahnsen/Mark Nahnsen			
Attorney Docket Number:	64844-256633			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
INDEPENDENT CLAIMS IN EXCESS OF 3	2201	1	230	230
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				230

Electronic Acknowledgement Receipt

EFS ID:	32676798
Application Number:	15245948
International Application Number:	
Confirmation Number:	1690
Title of Invention:	WOOD-GRAINED POLYMER SUBSTRATE
First Named Inventor/Applicant Name:	Andrew Stephens
Customer Number:	23644
Filer:	Mark J. Nahnsen/Mark Nahnsen
Filer Authorized By:	Mark J. Nahnsen
Attorney Docket Number:	64844-256633
Receipt Date:	21-MAY-2018
Filing Date:	24-AUG-2016
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Application Type:	Utility under 35 USC 111(a)

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Authorized User	Mark Sweetin

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

TANGENT EXHIBIT T2005

PAGE 4

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		256633_Supplemental_Response_052118.pdf	37454	yes	9
			84dfda97bfcc0520fef089c726fcc9d39d1e965e		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Applicant Arguments/Remarks Made in an Amendment		8	9	
	Claims		2	7	
	Supplemental Response or Supplemental Amendment		1	1	
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30742	no	2
			af322a68bdb50317314c77b5d5ca05c71b024fa8		
Warnings:					
Information:					
Total Files Size (in bytes):			68196		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

I. CLAIM STATUS

Applicant thanks the examiner for the telephonic interview on April 20, 2018. Prior to this response, claims 1-16 were pending in this case. Claims 1, 4, 6, 10, 15, and 21 have been amended. Claim 25 has been added. No new matter has been added with these amendments and new claims. The amendments are fully supported by the specification and drawings as originally filed and as amended.

II. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 3-10, and 12-16 were rejected under 35 U.S.C. § 103 over U.S. Pat. App. Pub. No. 2003/0021915 to Rohatgi et al. ("Rohatgi"). Claims 2 and 11 were rejected under 35 U.S.C. § 103 over Rohatgi in view of U.S. Pat. App. Pub. No. 2004/0038002 to Franco et al. ("Franco"). The rejections are respectfully traversed. Claims 1, 10 and 21 have been amended to require the plurality of individual layers of the first and second sets of polymer layers to 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. Rohatgi and Franco, whether alone or in combination, fail to teach, show, or suggest a plurality of individual layers that alternate within a 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. Accordingly, withdrawal of the rejections and allowance of the pending claims is respectfully requested.

IV. NEW CLAIMS

New claim 25 has been added. The cited references also fail to teach all of the elements of claims 25. Accordingly, allowance of claims 1-15 and 17-25 is respectfully requested.

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V. CONCLUSION

In view of the forgoing, it is submitted that this application is in condition for allowance. Allowance is respectfully requested. If the Examiner believes that a telephonic interview would expedite the allowance of this application, the Examiner is requested to contact the undersigned for prompt resolution of any outstanding issues.

It is respectfully requested that this paper, if necessary, be considered as a Petition for Extension of Time sufficient to effect a timely response and that shortages in fees, if any, be charged, or any overpayment in fees credited, to the Account of Barnes & Thornburg, Deposit Account No. 12-0913 with reference to file 64844-256633.

Respectfully submitted,

Date: May 21, 2018

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Amendments to the Claims:

The following claims shall replace all previous versions of the claims:

1. (Currently Amended) A simulated natural wood-grained polymer board having a first side and a second side spaced apart from the first side ~~along a width direction~~, 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 ~~different than the width direction~~ between a first end and a second end, the first and second ends defining a length of the board, ~~a core of the board extending between the first and second sides and between the first and second ends~~, the board comprising:

a first set of polymer layers generally 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 generally 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 core of the board to form a natural wood-grained appearance throughout the core of the board such that~~ and a plurality of the first and second sets of polymer layers extend along a substantially uninterrupted curvilinear path originating proximate the first side of the board in the width direction and are substantially uninterrupted from the first side and terminating proximate to the second side of the board.

2. (Previously Presented) The board of claim 1, wherein the layers of the first set of polymer layers are generally thinner than the layers of the second set of polymer layers.

3. (Original) The board of claim 1, wherein a portion of at least one of the first side and second side of the board is removed to expose portions of the first and second sets of polymer layers along the length direction.

4. (Currently Amended) The board of claim 3, wherein the exposed portions of the first and second sets of polymer layers form a burled ~~burling~~ grain pattern.

5. (Original) The board of claim 1, wherein at least one of the first and second sides of the board is embossed with a wood grain pattern.

6. (Currently Amended) The board of claim 1, wherein the first and second sets of polymer layers are formed from high density polyethylene.

7. (Original) The board of claim 6, wherein the first and second sets of polymer layers further include at least one of a UV inhibitor and a foaming agent.

8. (Original) The board of claim 6, wherein one of the first and second sets of polymer layers further includes a foaming agent.

9. (Original) The board of claim 1, wherein the board is formed to define a polygonal cross-section along a length of the board.

10. (Currently Amended) A simulated natural wood-grained polymer substrate extending along a first direction, the substrate having a first side and a second side spaced apart from the first side along a second direction different than the first direction, the first and second sides defining a width of the substrate, the first and second sides extending along the first direction, a core of the substrate extending between the first and second sides and along the first direction, the substrate comprising:

a first set of polymer layers generally extending along the first direction and containing a first colorant, a majority of the first set of polymer layers being substantially continuous along the first direction; and

a second set of polymer layers generally extending along the first direction and containing a second colorant different than the first colorant, a majority of the second set of polymer layers being substantially continuous along the first direction;

wherein individual layers of the first and second sets of polymer layers alternate within the core of the substrate to form a natural wood-grained appearance throughout the core of the substrate; and

wherein a plurality of the individual layers such that of one of the first and second sets of polymer layers extend along a substantially uninterrupted curvilinear path in the second direction originating proximate the first side and terminating proximate ~~are substantially uninterrupted from the first side to the second side.~~

11. (Previously Presented) The substrate of claim 10, wherein the layers of the first set of polymer layers are generally thinner than the layers of the second set of polymer layers.

12. (Previously Presented) The substrate of claim 10, wherein the first and second sets of polymer layers are formed from high density polyethylene.

13. (Original) The substrate of claim 12, wherein the first and second sets of polymer layers further include at least one of a UV inhibitor and a foaming agent.

14. (Original) The substrate of claim 12, wherein one of the first and second sets of polymer layers further includes a foaming agent.

15. (Currently Amended) The substrate of claim 10, wherein the substrate is formed to define a polygonal cross-section along a length of the substrate.

16. (Cancelled)

17. (Previously Presented) The board of claim 6, wherein the core is substantially free of natural wood materials.

18. (Previously Presented) The board of claim 1, further comprising a third side and a fourth side spaced apart from the third side along a height direction different than the length direction and width direction, wherein the third and fourth sides define a height of the board, wherein the third and fourth sides extend along the length direction between the first and second ends, wherein the core of the board extends between the first, second, third, and fourth sides and between the first and second ends, and wherein the individual layers of the first and second sets of polymer layers alternate within the core of the board along the height direction.

19. (Previously Presented) The substrate of claim 12, wherein the core is substantially free of natural wood materials.

20. (Previously Presented) The substrate of claim 10, further comprising a third side and a fourth side spaced apart from the third side along a third direction different than the first and second directions, wherein the third and fourth sides define a height of the substrate, wherein the third and fourth sides extend along the first direction, wherein the core of the substrate extends between the first, second, third, and fourth sides and along the first direction, and wherein individual layers of the first and second sets of polymer layers alternate within the core of the substrate along the third direction.

21. (Currently Amended) A simulated natural wood-grained polymer substrate having a length defined along a first direction, a width defined along a second direction perpendicular to the first direction, and a height defined along a third direction perpendicular to both the first and second directions, the substrate comprising:

a first set of polymer layers generally extending along the first direction and containing a first colorant, a majority of the first set of polymer layers being substantially continuous along the first direction; and

a second set of polymer layers generally extending along the first direction and containing a second colorant different than the first colorant, a majority of the second set of polymer layers being substantially continuous along the first direction;

wherein individual layers of the first and second sets of polymer layers alternate within the substrate along the third direction to form a natural wood-grained appearance throughout the substrate; and

wherein a plurality of the individual layers of one of the ~~such that~~ a plurality of the first and second sets of polymer layers extend along a substantially uninterrupted curvilinear path in the second direction originating proximate an outer surface of a first portion of the substrate and terminating proximate an outer surface of a second portion of ~~and are substantially uninterrupted across~~ the substrate.

22. (Previously Presented) The substrate of claim 21, wherein the layers of the first set of polymer layers are generally thinner than layers of the second set of polymer layers.

23. (Previously Presented) The substrate of claim 21, wherein the first and second sets of polymer layers are formed from high density polyethylene.

24. (Previously Presented) The substrate of claim 23, wherein the core is substantially free of natural wood materials.

25. (New) A simulated natural wood-grained polymer board comprising:
a polymer core having a first side and a second side spaced apart from the first side, spacing between the first and second sides defining one of a width or a height of the core, the first and second sides extending along a length direction of the core between a first end and a second end, the first and second ends defining a length of the core;

a first set of polymer layers generally extending along the length direction and containing a first colorant, a majority of the first set of polymer layers extending along the entire length of the core;

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a second set of polymer layers generally 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 entire length of the core; and

wherein a plurality of individual layers of the first and second sets of polymer layers alternate within the core and extend along a substantially uninterrupted curvilinear path originating from proximate the first side of the core and terminating proximate the second side of the core.