



Tom Mathys
Licensing Director

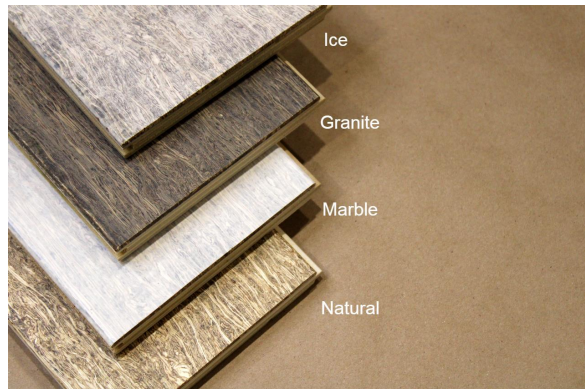




Murray, Kentucky



block



flooring





Main goals:

- ❖ fight deforestation – plant/4 months vs trees/100–150 years
- ❖ offer healthy, high-quality alternative to regular wood
- ❖ reduce CO2 levels – HempWood® Organic Flooring
= only carbon-negative wood flooring in the US
- ❖ license program – set up HempWood® factories worldwide

OUR MISSION



**DEFORESTATION
CAN BE
PREVENTED.**

OUR MISSION



Each acre of hemp
yields 6,000 ft² of
HempWood®
Natural Flooring



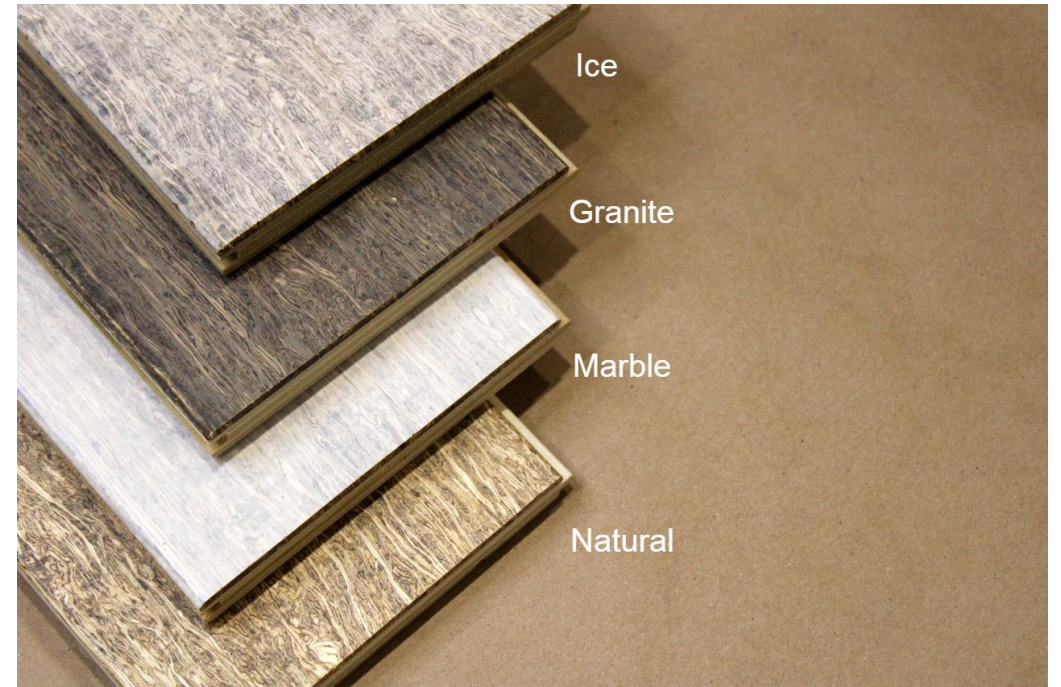
1 hectare of hemp =
1400m² of
HempWood flooring



Murray, Kentucky



block



flooring

INTELLECTUAL PROPERTY



US010240285B2

(12) United States Patent Wilson

(10) Patent No.: US 10,240,285 B2
(45) Date of Patent: Mar. 26, 2019

(54) SYSTEM FOR AND METHOD OF MANUFACTURING HEMP PRODUCTS

(71) Applicant: Gregory A. Wilson, Edgewater, MD (US)

(72) Inventor: Gregory A. Wilson, Edgewater, MD (US)

(73) Assignee: Gregory A. Wilson, Edgewater, MD (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 55 days.

(21) Appl. No.: 15/338,298

(22) Filed: Oct. 28, 2016

(65) Prior Publication Data
US 2018/0119338 A1 May 3, 2018

(51) Int. Cl.
B32B 5/12 (2006.01)
D06N 7/00 (2006.01)
D04H 3/015 (2012.01)
D04H 3/01 (2012.01)
D04H 3/12 (2006.01)
B27N 3/02 (2006.01)
(52) U.S. Cl.
CPC D06N 7/0063 (2013.01); B27N 3/02 (2013.01); D04H 3/015 (2013.01); D04H 3/04 (2013.01); D04H 3/12 (2013.01); D06N 2201/045 (2013.01); Y10T 428/24925 (2015.04); Y10T 428/24944 (2015.04); Y10T 428/24944 (2015.04)

(58) Field of Classification Search
CPC : Y10T 428/24925; Y10T 428/24944; Y10T 428/31978; Y10T 428/31982; Y10T 428/31989; D06N 2201/045
See application file for complete search history.

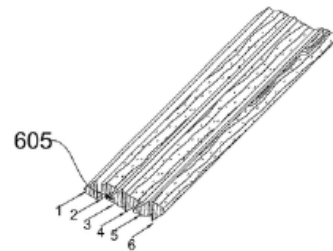
(56) References Cited
U.S. PATENT DOCUMENTS
5,939,209 A 8/1999 Shibuya et al.
6,037,049 A 5/2000 Tingley (Continued)

OTHER PUBLICATIONS
International Search Report and Written Opinion for International Appl. No. PCT/US2017/058571 issued by USPTO/ISA dated Jan. 4, 2018.

(Continued)
Primary Examiner — Alexander S. Thomas
(74) Attorney, Agent, or Firm — Steven M. War, Esq.

(57) ABSTRACT
A manufactured hemp product comprising a plurality of adhesively bonded and pressed hemp strands where the majority of the hemp strands are of generally the same length and comprise a naturally-occurring, generally elongate internal structure extending generally along one axis of the strand that has been at least partially laterally broken and at least permeated by an adhesive. The hemp strands are oriented roughly parallel to one another along their length. The manufactured hemp product comprises an amount of adhesive between about 5% to about 49% by weight. The manufactured hemp product can be used as a wood substitute in terms of appearance and performance. The manufactured hemp products may have aesthetic and structural qualities that are suitable for high traffic, high visibility applications such as boards, blocks, beams, panels, flooring, furniture, building materials and other wood products.

11 Claims, 12 Drawing Sheets



US010843374B2

(12) United States Patent Wilson

(10) Patent No.: US 10,843,374 B2
(45) Date of Patent: Nov. 24, 2020

(54) SYSTEM FOR AND METHOD OF MANUFACTURING HEMP PRODUCTS

(71) Applicant: Gregory A. Wilson, Edgewater, MD (US)

(72) Inventor: Gregory A. Wilson, Edgewater, MD (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
This patent is subject to a terminal disclaimer.

(21) Appl. No.: 16/344,089

(22) Filed: Mar. 25, 2019

(65) Prior Publication Data
US 2019/0283269 A1 Sep. 19, 2019

Related U.S. Application Data
(63) Continuation-in-part of application No. 15/338,298, filed on Oct. 28, 2016, now Pat. No. 10,240,285.

(51) Int. Cl.
B32B 5/12 (2006.01)
B27N 3/04 (2006.01)
(Continued)
(52) U.S. Cl.
CPC B27N 3/04 (2013.01); B27N 3/06 (2013.01); B27N 3/20 (2013.01); (Continued)
(58) Field of Classification Search
CPC : Y10T 428/24925; Y10T 428/24944; Y10T 428/31978; (Continued)

(56) References Cited
U.S. PATENT DOCUMENTS
5,939,209 A 8/1999 Shibuya et al.
6,037,049 A 5/2000 Tingley (Continued)

FOREIGN PATENT DOCUMENTS

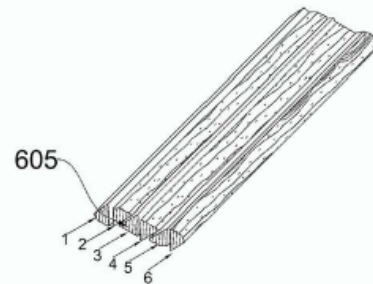
CN 105459560 A 4/2016
GB 1 955 833 A 3/1978
JP 2001 170913 B1 6/2001

OTHER PUBLICATIONS
International Search Report and Written Opinion for International Appl. No. PCT/US2017/058571 issued by USPTO/ISA dated Jan. 4, 2018.
(Continued)

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A manufactured hemp product comprising a plurality of adhesively bonded and pressed hemp strands where the majority of the hemp strands are of generally the same length and comprise a naturally-occurring, generally elongate internal structure extending generally along one axis of the strand that has been at least partially laterally broken and at least permeated by an adhesive. The hemp strands are oriented roughly parallel to one another along their length. The manufactured hemp product comprises an amount of adhesive between about 5% to about 49% by weight. The manufactured hemp product can be used as a wood substitute in terms of appearance and performance. The manufactured hemp products may have aesthetic and structural qualities that are suitable for high traffic, high visibility applications such as boards, blocks, beams, panels, flooring, furniture, building materials and other wood products.

24 Claims, 17 Drawing Sheets



Trademarks: HempWood®



Patents:

10,843,374
10,240,285

USA | Canada | Australia | EU | China | India

LICENSE AGREEMENT

BETWEEN

FIBONACCI LLC, having its registered office at 301 Rockwood Rd, Murray, Kentucky, 42071 United States of America, represented by Gregory A. Wilson, CEO, and Tom Mathys, Licensing Director,

hereinafter referred to as "Licensor",

AND

XXXXXXX, having its registered office at XXXXX, represented by XXXXX.

hereinafter referred to as "Licensee",

WHEREAS:

FIBONACCI LLC owns the exclusive world-wide right to grant licenses to exploit:

- Know-how for the manufacture of manufactured hems product comprising a plurality of adhesively-bonded and pressed hemp strands;
- Any and all pending and granted patent rights based upon the priority Patent Applications Numbered US15/338,298 and US16/364,089 for the production of such products; and for
- The registered trademark HempWood®

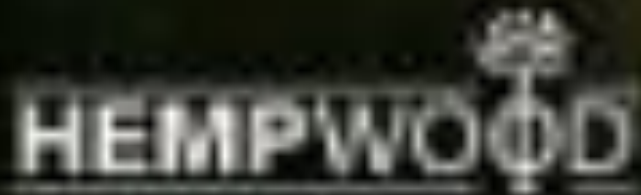


Licensee wishes to exploit the know-how, industrial designs, patent rights and trademark for the manufacture and sales of Licensor's products;



OUR PROCESS

Visit HempWood.com
and create your healthy space today.



PRODUCTION PROCESS COLD PRESS TECHNOLOGY



hemp bale



unbaling



fibre + hurd



prep for resin



prep for resin



Resin application



drying racks



pre-press



cold press



finished block

OUR PROCESS

EACH BLOCK GIVES 2 TYPES OF VISUALS



"rift"
(more linear)

"live"
(more random)

HEMPWOOD® IS A FACE-GRADE INTERIOR HARDWOOD.

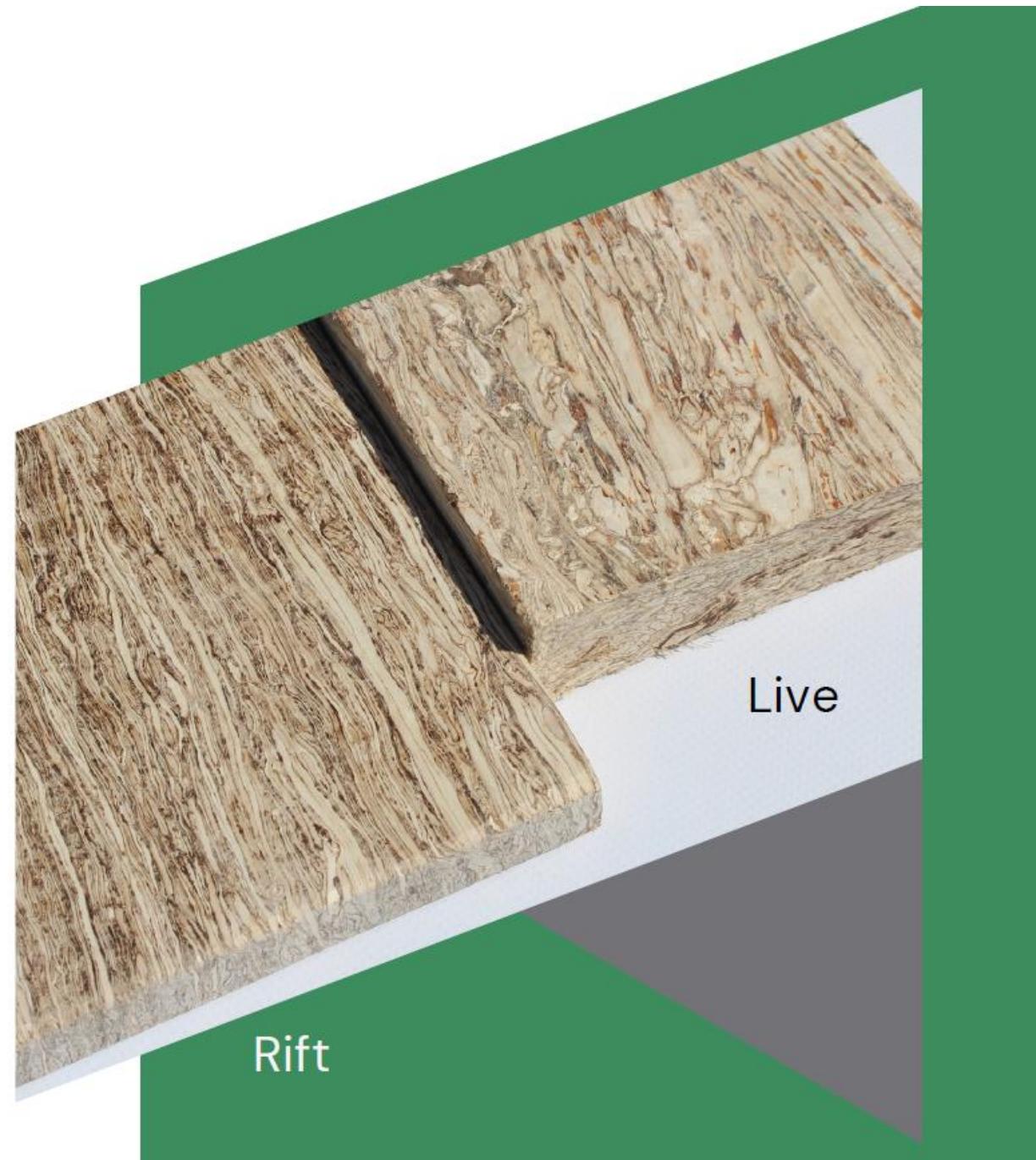
HempWood comes in rift and live sawn. (See the picture to the right for examples)

As a rule of thumb, HempWood® can replace all of the applications of American white oak.

Examples

- cabinets
- counters
- furniture
- shelving
- flooring

You will not frame a house with HempWood®





Lumber



Engineered Hardwood
Flooring



Panels



Cabinet Kits



Woodturning Blanks



Table Kits











HempWood® Natural Flooring

The only **carbon-negative** flooring in the USA from cradle to gate

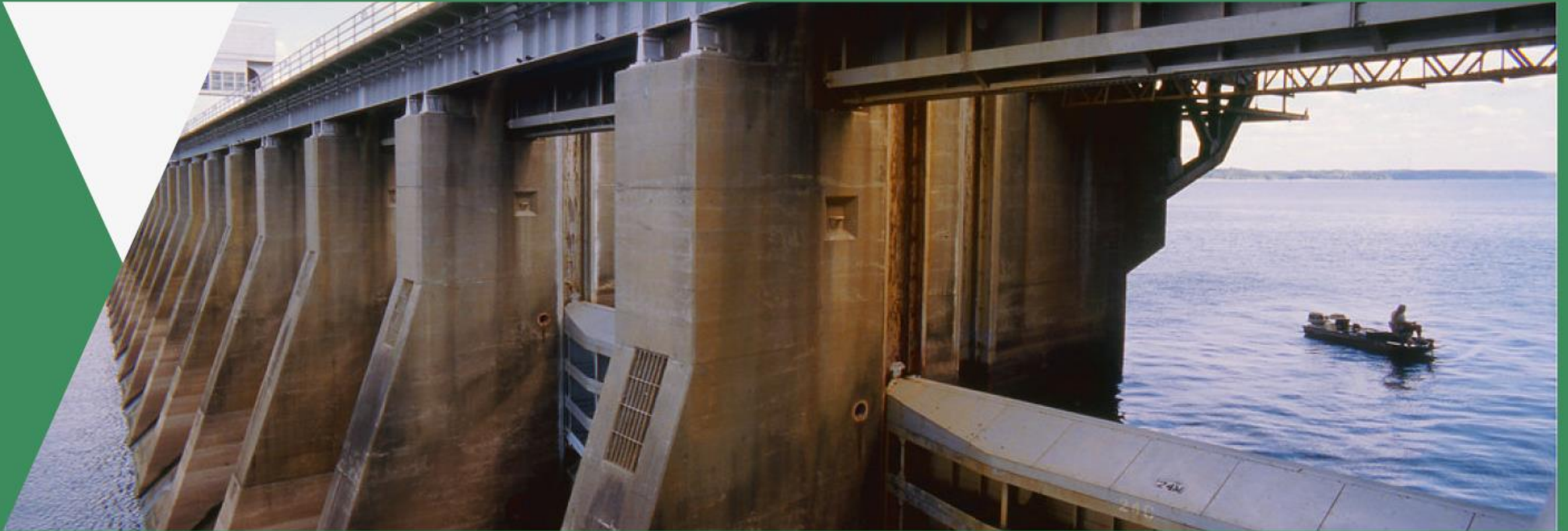


Environmental Product Declaration

Conducted in accordance with ISO 14025, ISO 21930, and EN 15804

ENERGY

Due to the location of HempWood® Headquarters, all electrical energy is hydro-power, meaning fossil fuels were not used to generate the power.



Kentucky Dam



HempWood® converts its waste into energy.

By using a bio-burner, HempWood® is able to take material that would have been wasted and use it for heating the dryers and ovens

On the bio-burner, there is also a scrubber that eliminates carbon emissions into the atmosphere





LET'S GET IN TOUCH

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