PDetect.com

Protecting Your Health™

MORE DETAILS

PATENT OBJECTIVES

Detect Excessive Conditions of:

- **Pee** [Enuresis]
  - Urinary Stress
  - Incontinence
  - Bedwetting
- **Poop** [Diarrhea]
  - Pain
  - Bloating
  - Dehydration
- **Perspiration** [Hyperhidrosis]
  - Special Needs
  - Postoperative
  - Nursing Homes

&

- **Water Leaks**

To Identify, Prevent or Reduce:

- **Bed Sores** [Pressure Ulcers]
  - Blisters
  - Infection
  - Malnutrition
- **Disease**
  - Heart Attack
  - Cancer
  - Diabetes
- **Smell**
  - Odors
  - Disorders
- **Embarrassment**

&

- **Physical Damage**
  - Floors
  - Basement

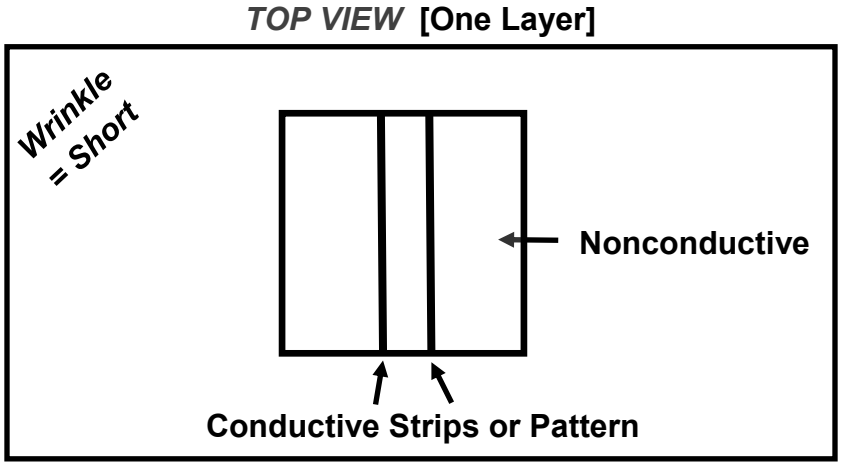
DETECTION TRIGGER

HISTORY

There have been numerous patents over the past couple of decades which claim to detect pee in diapers. The resulting products have failed in the marketplace.

The so-called trigger on these failed products is two or more conductive wires attached to a nonwoven layer. Pee [moisture] flowing between the wires connect the circuit which, in turn, triggered an alarm.

The layer containing the wires is a flexible fabric. This flexibility means that the wires could accidentally touch and cause a short circuit i.e. a false alarm and product failure.

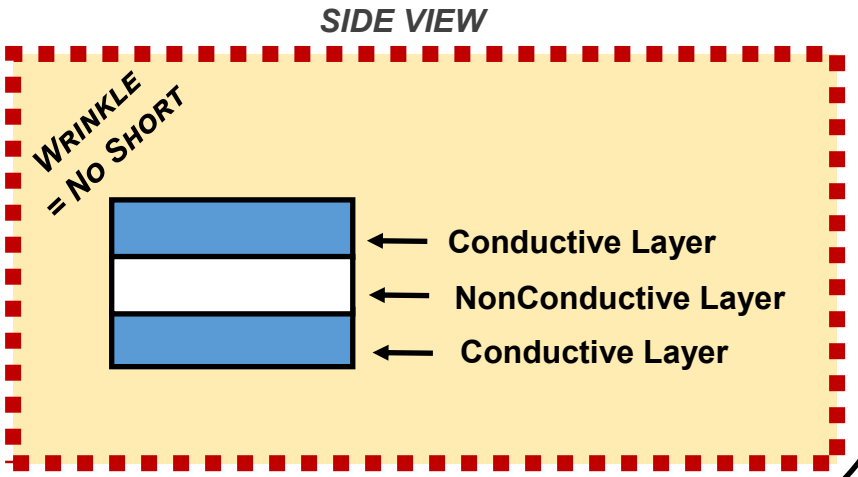


OUR PATENTS

Moisture Detection Systems & Devices

Two conductive nonwoven layers are separated by a non-conductive layer. Pee [moisture] seeping anywhere through the layers triggers the alarm. The non-conductive layer prevents any accidental touching of the conductive layers and thus prevents a potential false alarm. The patents merge nonwoven and electronics technologies. R & D started in 2008.

US Patent No. 12,038,402
US Patent No. 11,988,797
PCT Patents Pending



PATENT ATTRIBUTES

1. Detection Trigger

- Nonwoven Materials
- Open Circuit
- Closed Circuit
- Capacitance Sensing

2. Electronics

- Wireless
- Transmitters
- Receivers
- Vibrator

3. Potentiometer

- Resistance Sensing

4. Pyramid Shape

- Stability
- Lore
- SPHINX®

2/15/2021
Client: John Lemke

CONCEPT R & D

Project Objective: Develop a nonwoven pad that detects wetness via electrical conductivity

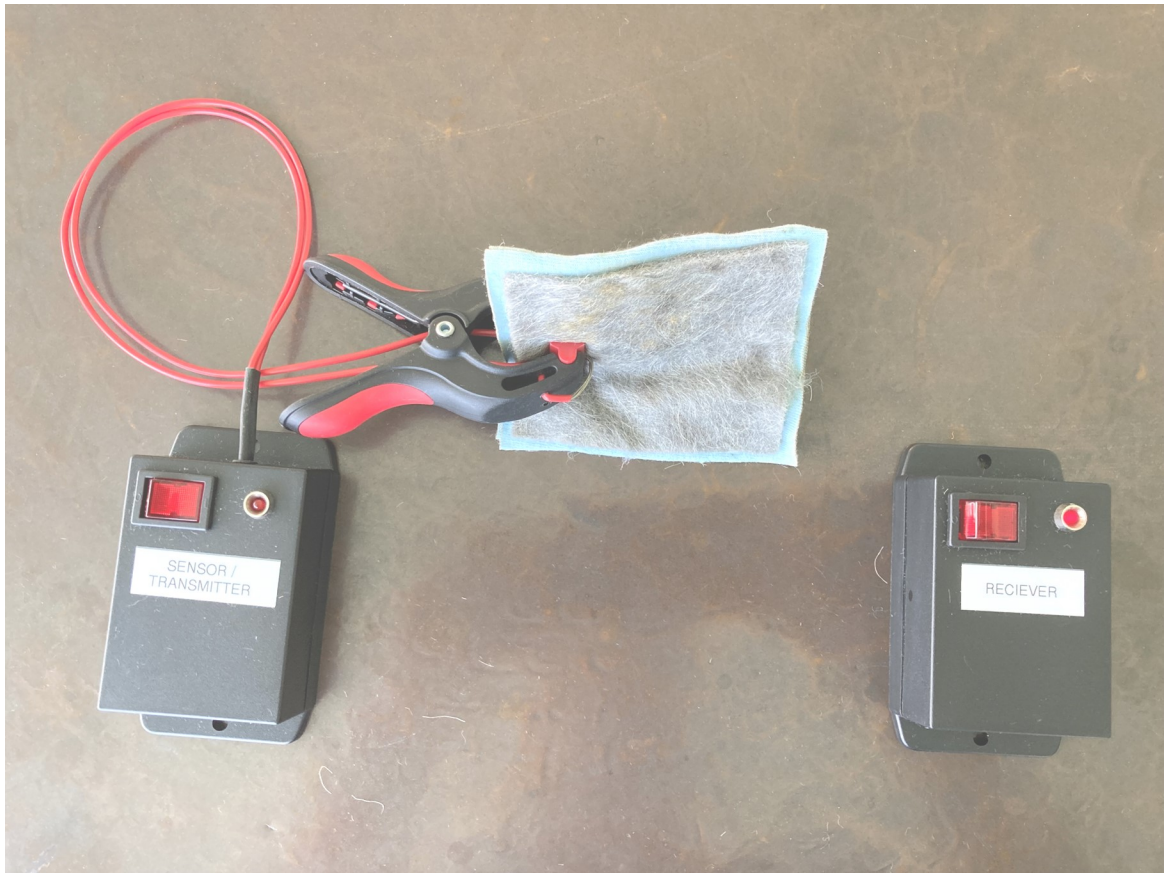
Development Approach: Since the liner, ADL and back sheet are well established and inexpensive technologies in the nonwoven hygiene industry, we believe development would be costly and unnecessary. Hence the technical development for this project focuses on the core ability to detect urine/moisture. This is also where moisture concentration is greatest — best chance to detect. Two models considered for detection: urine completes circuit; urine shorts the circuit. Concept samples of both nonwoven cores were made. Initially, carbon fiber will be used as the conductive material to evaluate the detection concepts. Other materials may be needed or used later.

Trial Objectives

1. Produce conductive nonwoven veil [potentially place between ADL and core]. V1
2. Produce wetlaid [denser] core w/varying levels of conductive fiber blended throughout the core.C1—C6
3. Produce needletacked [less dense] core. C8
4. Produce cores with conductive layer attached to one side the core. A1
5. Produce cores with conductive veil strips placed at different widths on the core. A1—A3

Nonwoven Methodology	Item	Tenax Carbon	1.5 dpf rayon (%)	25 dpf rayon (%)	PVOH Binder	Huvis 2 dpf	Target Basis Weight	Measured Basis Weight	Core	# of Hand sheets	Resistance	CONDUCTIVITY	Resistance Variation Between Dry & Wet	Connect Next To Each Other	Liquid Flow vs Resistance	Physical Factors
WETLAID EXTERNAL	C1	20	50	25	5		200	205	Conductive Cores	1	50 ohm	GOOD	Minor	No	Liquid only in diagonal path can make a minor change in resistance	Movement displacement and pressure affect sheet resistance
	C2	10	60	25	5		200	202		1	87 ohm	GOOD	Minor	No		
	C3	5	65	25	5		200	202		1	320 ohm	LESS	Minor	No		
	C4	10	45	25		20		206		4	45 ohm	GOOD	Minor	No		
	C5	20	35	25		20		215		4	191 ohm	LESS	Minor	No		
	C6	5	50	25		20		219		4	3000 ohm	LESS				
	V1	95			5		25	25	Veils	7	10 ohm	GOOD				
		1.5 dpf x 38 mm rayon	Carbon Fiber 51 min		Bonding Type		Target Basis Weight (65M)	Measured Basis Weight (65M)								
CARDED	C7	100			Tacked		200		Regular Core							
	C8	80	20		Tacked		200	172	Conductive Core	1	600 ohm					
		Layer 1	Layer 2		Bonding Type		Target Basis Weight (65M)	Measured Basis Weight (65M)								
ASSEMBLY	A1	C5	V1	Full Sheet Tacked	Tacked Thru Vail		225	226	Regular Core	3	13 ohm	GOOD	Minor	No	Liquid only in diagonal path can make a minor change in resistance	Affects
	A2	C5	V1	½ Strips of Veil ½ " Apart			225	214		3		GOOD	Minor	0K		Movement displacement and pressure do not affect sheet resistance
	A3	C5	V1	½ Strips of Veil 1 " Apart			225	213	Conductive Core	3		GOOD	Minor			

PROOF OF CONCEPT



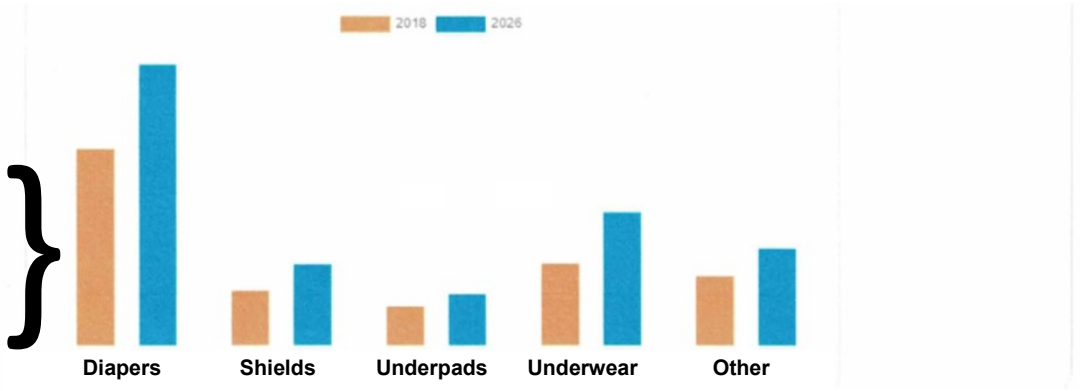
NEW & UNIQUE PRODUCTS

- Diapers
- Underpads
- Chair Pads
- Water Detection
- Clothing
- Transit
- Grounding
- Smart Fabrics

- There Are No Known Commercially Successful Nonwoven Competitive Products
- Additional new product applications are likely

INCONTINENCE PRODUCTS

Diapers US$50 Billion 2019



https://www.alliedmarketresearch.com/disposable-incontinence-products-market

*

- **Global Diaper Market: US$50.5 billion in 2019 with a CAGR of 5.7% thur 2030**
  https://www.psmarketresearch.com/market-analysis/diapers-market

- **Ontex Launches Smart Diaper Service that Enhances Continence Care Efficiency and Dignity [17 Jun 2021]**
  https://ontex.com/news/brands/ontex-launches-smart-diaper-service-that-enhances-continence-care-efficiency-and-dignity/

- **Between 9.9% and 36.1% of the population over 60 years of age is reported to suffer from incontinence.**
  WHO study on incontinence, 2017, page 1, retrieved on May 10th, 2021

- **The group of people over 60 years of age is expected to rise from nearly 1 billion worldwide now to nearly 2.1 billion by 2050**
  UN report on ageing population, 2017, page 1
  UN population report, 2015, page 9, retrieved May 10, 2021

- **The Future of Global Nonwoven Wipes to 2029**
  Smithers reviews varied outlook for $23 billion nonwoven wipes market in 2024 until 2029

QUICK PRODUCT DEVELOPMENT

Adding carbon fibers to two existing nonwoven production layers is the major nonwoven requirement. Applying existing, proven electronics is the major electronics requirement. The easiest and fastest way to begin may be with flat pads.

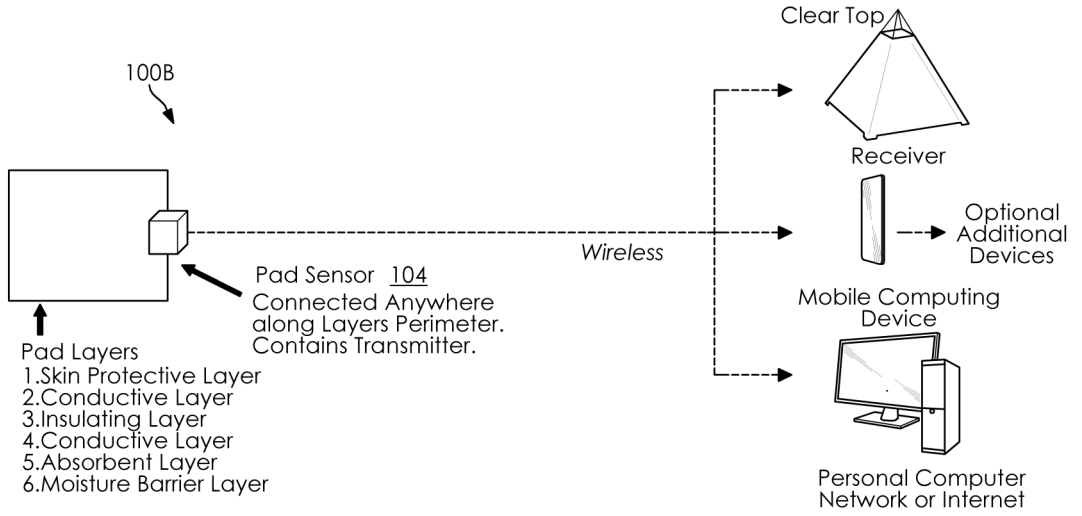


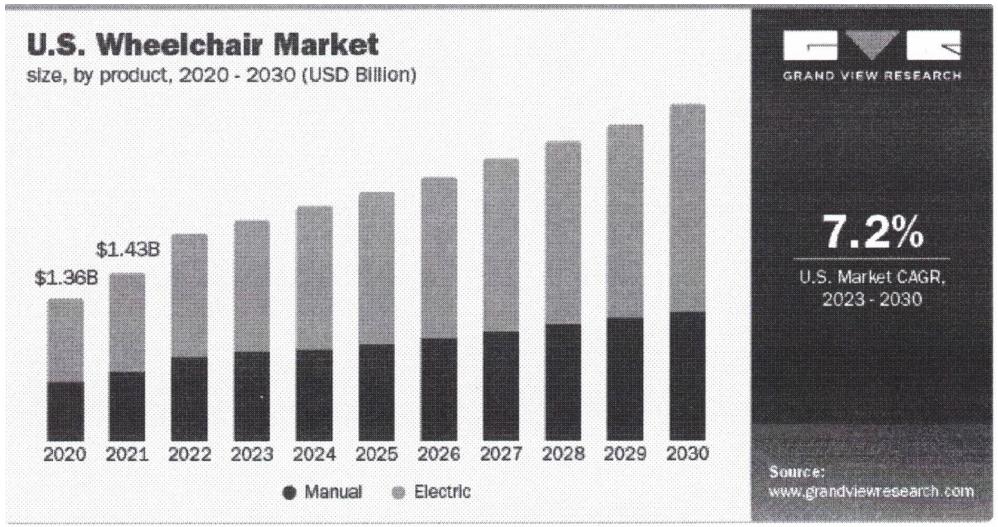
FIG. 1B

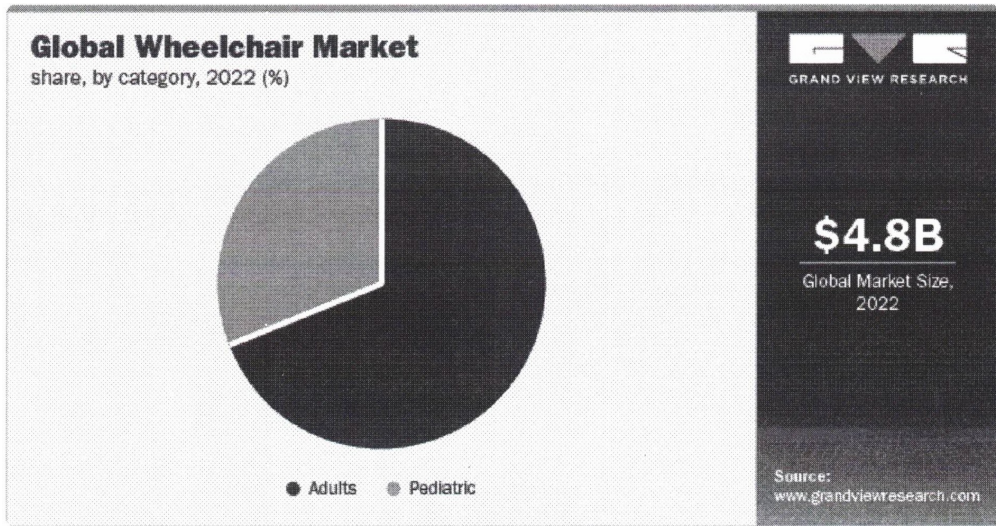
Diagram is from the patent filing. Additional product configurations are shown in the patent.

MAJOR MARKETS

- **Households**
  Pee, Poop, Perspiration, Grounding
  Incontinence, Water Leakage, Sumps
- **Hospitals, Nursing Homes**
  Pee, Poop, Perspiration, Incontinence
- **Medical**
  Sleep, Stress, Pain, Disease,
  Grounding
- **Oldsters**
  Pee, Poop, Perspiration,
  Incontinence, Grounding
- **Youngsters**
  Pee, Poop, Training, Incontinence
- **Marine [Ships | Boats]**
  Water Leakage, Transit, Sumps
- **Commercial**
  Water Leakage, Transit, Sumps
- **Industrial**
  Water Leakage, Transit, Sumps
- **Military**
  Pee, Poop, Perspiration,
  Incontinence, Water Leakage,
  Transit, Sumps
- **First Responders**
  Perspiration

WHEELCHAIRS MARKET





https://www.grandviewresearch.com/industry-analysis/wheelchair-market

NEW BUSINESS MODEL

Major considerations include:

1. **New Technologies. Our patents protect the initial products from competition. Nonetheless, there will be an evolution in technologies.**

2. **Existing Markets. Some of our new & unique products will be marketed to existing nonwoven markets. However, some will not.**

3. **Crypto. Worldwide evolution to crypto affects distribution and marketing.**

TECHNOLOGY: SMART FABRICS

What are Smart Materials?

Smart materials, also known as intelligent or responsive materials, are designed to respond automatically to external stimuli such as temperature changes, light, pressure, or electric fields. Unlike traditional materials, which have static properties, smart materials can change their properties (shape, color, or consistency, for instance) based on environmental conditions.

What is a Smart Fabric?

Smart fabric (also know as smart textiles) is a type of smart material. These fabrics are embedded with digital components that allow them to do many things like, conduct electricity, react to environmental changes, gather and transmit data, or even incorporate embedded LED lights.

Technology Used in Smart Fabrics/Textiles

Smart fabrics use the following three technologies to function:

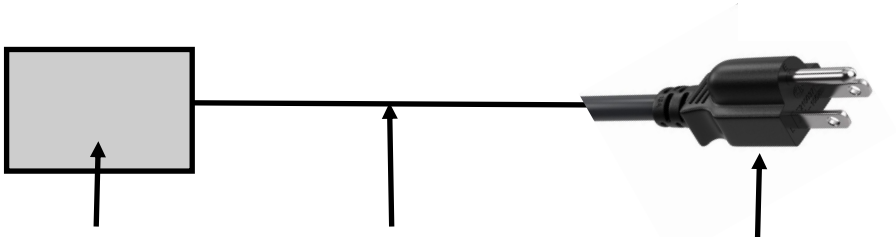
1. **Nanotechnology or miniaturized electronics.**
2. **Wireless Technologies like Bluetooth and NFC (Near Field Communication)**
3. **Thin and flexible batteries or solar cells**

EXAMPLES OF SMART FABRICS

1. **Thermochromic Fabrics: These fabrics change color in response to temperature variations, used in fashion and safety gear.**
2. **Conductive Fabrics: Embedded with conductive threads, these fabrics can transmit electrical signals and are used in wearable electronics.**
3. **Self-Healing Fabrics: Developed with materials that can repair themselves after being punctured or torn.**
4. **Photochromic Textiles: Change color or pattern when exposed to light, particularly UV light, and are often used in sunglasses and apparel.**
5. **Pressure-Sensitive Fabrics: Incorporate sensors that respond to pressure, making them useful in medical monitoring and interactive upholstery.**
6. **Shape Memory Fabrics: Can return to their original shape after being deformed, useful in various applications from aerospace to fashion.**
7. **Water-Resistant and Breathable Fabrics: Engineered to be impermeable to water while allowing vapor to pass through, commonly used in outdoor and sports clothing.**
8. **Illuminated Fabrics: Integrated with LED fibers or phosphorescent materials, these fabrics can light up and are used in fashion, safety wear, and decor.**
9. **Temperature Regulating Fabrics: Incorporate materials that help maintain a stable temperature, useful in activewear**

Source: https://orbitingweb.com/blog/smart-fabrics-examples-future-technology/

TECHNOLOGY: GROUNDING



Conductive Layer or Sock

Ground Wire Only

Common Ground Plug

TARGETS

- Better Sleep
- Less Stress
- Less Pain
- Address Disease

R & D PROCESS

1. Observation
2. Epidemiological Research
   Relational
3. Professions Research
   Causal
   - Bioelectromagnetics
   - Bioelectricity
   - Biophotonics
   - Electromyography
   - Magnetroception

Nikola Tesla

- The Electric Key to Health You May Not Understand
- The Earthing Movie
- Medbed Healing Centers

TECHNOLOGY: WELLNESS

Electric Medicine

- The Body Electric - Becker
  Disease as an overabundance of Positive Charge
- P E M F
  Pulsed Electromagnetic Field
- Biocharger™
  Violet Ray
- Royal Rife
- George Van Tassle
  Integration
- Theraphi™

Energy Healing

- R E I K K
- Aura Cleansing
- Reflexology
- Tachyon Chamber
- Magnet Therapy
- Geomagnetic Vortices
- Acupuncture

Frequency

- Tribe Vibe
- EMF Shielding
- Protective Stones
  Shongite
  Orgonite
  Tourmaline
- Silver
  Worn Garments
  Bedding
- Testing Dosemeter
  RF Meters

Source: ***Infinite Life Vortex***,
Deep State Mapping Project, 2024

The Electric Key to Health You May Not Understand

https://www.theepochtimes.com/health/the-electric-key-to-health-you-may-not-understand-5637958

TECHNOLOGY: CARBON NANOTECHNOLOGY

Forms Of Carbon

1. Graphite
2. Diamonds
3. Buckminsterfullerene [Buckyballs]

Timeline Since 1950s of carbon nanotubes

REFERENCES

- Carbon Nanotube
- Carbon Nanofiber
- Carbon-fiber Reinforced Polymer
- Nanoelectromechanical systems
- Printed circuit boards

COLLABORATIVE INTERGOVERNMENTAL AGENCIES

- DOD
- DOE
- DOJ
- EPA
- NASA
- NIH
- NIST
- NSF

SELECTED US TECHNOLOGY TRANSFER LEGISLATION

- Stevenson-Wydler Technology Innovation Act of 1980
- Bayh-Dole Act of 1980
- Small Business Innovation Development Act of 1982
- Cooperative Research Act of 1984
- Federal Technology Transfer Act of 1986
- National Institute of Standards and Technology Authorization Act for 1989
- National Competitiveness Technology Transfer Act of 1989
- American Technology Preeminence Act of 1991
- Small Business Technology Transfer Act of 1992

There are additions and updates to the above Acts...

ORGANIZATIONAL OPTIONS

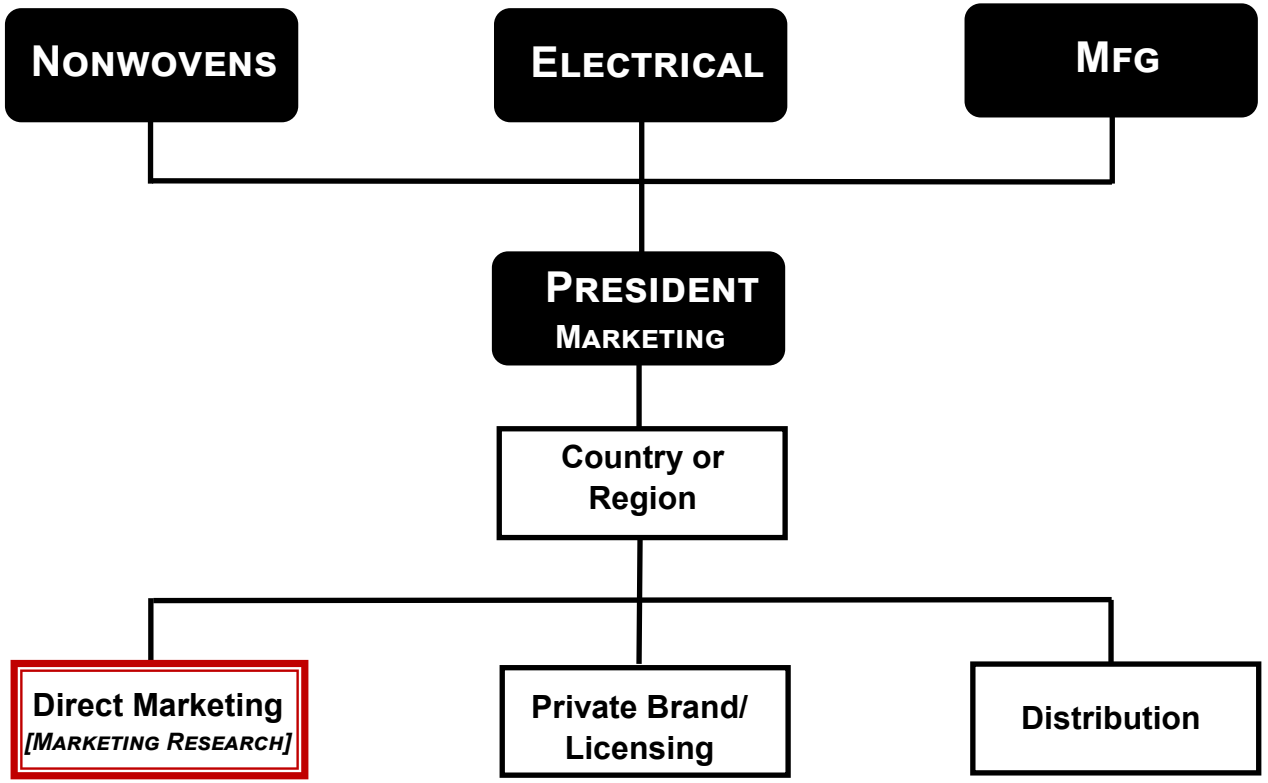
There are many options, including:

1. **Independent Joint Venture**
   Adding two or more owners, each with nonwoven or electronics expertise, will help assure knowledge about technology upgrades for continuing product development. Plus, experience in new markets and the crypto evolution will likely benefit all owners.

2. **Three Individuals**
   Each is knowledgeable in either nonwoven, electrical or marketing skills and would plan and direct contract firms for initial product development, production and marketing.

OPTIONAL BUSINESS MODEL

Independent Product Development



www.SphinxProtectingYourHealth.com

- **www.DryWheels.com**
- **www.GarmentPPatch.com**
- **www.LeakDetectAlarm**
- **www.LeakDetectionAlarm**
- **www.PDetect.com** ***[Since 2008]***
- **www.PDetection.com**
- **www.PeeDetect.com**
- **www.PerspirationDetection.com**
- **www.PPatchGarment.com**
- **www.PWarning.com**
- **www.SelfGroundingHealing.com**
- **www.StayDryAlarm.com**
- **www.WaterDetectionAlarm.com**
- **SPHINX®**

QFS

QUANTUM FINANCIAL SYSTEM

Blockchain

XRP XLM

Neither John nor Martha wish to be involved in day-to-day operations. However, John prefers to participate in strategic and major tactical decisions.

OPTIONAL BUSINESS DIVESTURES

R & D and Product Introduction

8 Product Categories x 6 months each = 4 years

1. **Pads: Wheel Chairs**
2. **Underpads**
3. **Grounding**
4. **Water [Moisture] Leakage**
5. **Diapers**
6. **Clothing**
7. **Transit**
8. **Smart Fabrics…**

ECONOMICS

Joint Venture Participation Benefits

1. **Achieve *First-Mover* Advantages**
   Obtain and maintain dominant market share...
2. **Control Your Own Destiny**
   Relying on others results in sub-optimal profits...
3. **Reap Faster Economies-of-Scale [Experience Curve]**
   Reduce costs by ± 10% with each doubling of production...
4. **Learn From Distinctive Market & Marketing Research**
   Get the best research with direct end-user contact...
5. **Benefit From Unique Profit Center**
   Share in all consortium profits...
6. **Participate in the New Quantum Financial System**
   Facilitate direct worldwide customer transactions...
7. **Maximize Your Marketplace while Minimizing R & D Risks.**
   Increase the probability of success...

SOLE OWNERSHIP

Martha Lemke

BS, Bacteriology
Carnegie Mellon University

Medical Research

- **Penn State University**
- **Veterans Administration**
- **University of Pittsburgh**
- **University of Hawaii**
- **University of Texas [Dallas]**
  Medical School — 25 Years

MarthaLemke@Protonmail.com

Patent Attorney

- Jeffrey Fabian
  Shumaker, Loop & Kendrick
  [Nonowner]

John Lemke

MBA
Penn State University

Business

- **Black & Decker, Towson, MD**
  Marketing Research [Founder]
  Product Manager [Electric Tools]
- **Rockwell International, Pittsburgh, PA**
  Corporate Development
  Marketing
- **Pacific Resources, Honolulu, HI**
  [Alexander & Baldwin (Dole, Matson)]
  Internal Audit | BoD
- **Guam Oil & Refining. Dallas, TX**
  Corporate Development
- **Founder, CEO**
  Kona Sea Charters, Kailua-Kona, HI
  Sphinx, Dallas, TX

JohnLemke@Pdetect.com

PROJECT EVOLUTION

2002 **Sphinx Corporation created:**
Leak Detection

2008 **Pee & Perspiration Problems Identified**
www.PDetect.com *[created]*
Project terminated: No practical trigger

2010 **Retired, Corporation to Niece**

2017 **Martha's Hospitalization**
Underpads: Reinforced Detection Opportunity
Project restarted

Project is Debt-Free

2022 **Patent Application Filing: 16 May**

2024 **US Patents Published**

Patent No. 11,988,797

Patent No. 12,038,402

PCT Patent Applied For

SHARE OUR VISION

PATENT. **Use our just issued patents to establish a new *INNOVATIVE NONWOVEN PRODUCTS* category. Initial marketing will be in the competitively protected US and EU markets.**

TECHNOLOGY. **Evolve into the use of nanotechnology throughout the product development process. First, into carbon; then into electronics.**

LOCATION. **Locate our R & D function in a geographic area where nanotechnology is researched and used. Investigate government research cooperative opportunities.**

ECONOMICS. **Embrace the new and evolving economic system which is known as the Quantum Financial System. One result will be the increased use of direct marketing.**

NEXT. **We have provided a competitively protected environment which will facilitate the development of our vision. Now is the time to implement our vision.**

Exclusive Patent Owners
John & Martha Lemke

LET'S MAKE A DEAL TO PROCEED

CONTACT

John Lemke

Independent, Entrepreneur, Patents Owner

JohnLemke@PDetect.com

828.394.4463

No Text, US, EST