



INTRODUCTION TO BASIC PATENT DEFINITIONS

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Engineering Library
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Goals Today

- *Discuss the basics of patents*
- *Introduce classification*
- *Discuss searching and databases*

Patents

- *Congress shall have the power...To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries*.
- *United States Constitution Article I, Section 8, Clause 8*

What Is a Patent?

- *Grant of a property right by a Government to an inventor (or heirs or assignees) for a limited period of time*
- *Right to exclude others from making, using, offering for sale, selling or importing the invention into the United States*

What Can Be Patented?

- *Processes*
- *Machines*
- *Manufactured articles*
- *Compositions of matter*
- *Animals*
- *Asexually reproduced plants*
- *Ornamental design of useful objects*
- *Improvements*

Types of Patents

- *Non-provisional*
 - *Utility*
 - *Design*
 - *Plant*
- *Provisional*
 - *One year to file non-provisional or lose filing date*

Terms of Patent

- *Utility and Plant*
 - 20 years - application date*
 - Previously 17 years - issue date*
- *Design*
 - 14 years from issue date*
- *(Delays by patent office workloads and attorneys are considered)*

Maintenance Fees for Utility Patents

- *Fees Paid to Keep Patent Active*
 - *3 1/2 years*
 - *7 1/2 years*
 - *11 1/2 years*
- *If Not Paid, Patent Term Ends Early*

Statutory Requirements of Patentability

- *New*
- *Unobvious*
- *Useful*
- *Full disclosure*

What Can Not Be Patented?

- *Printed matter*
- *Obvious devices*
- *Useless devices*
- *Perpetual motion machines*
- *Nuclear weapons*

Full disclosure – sample patent

- *Background*
- *Summary*
- *Drawings*
- *Detailed description*
- *Claims*

Review Basic Parts of a Patent

- ⌘ Title
- ⌘ Inventor
- ⌘ Assignee
- ⌘ Filing date
- ⌘ Application number
- ⌘ U.S. class
- ⌘ Field of search
- ⌘ Patent number
- ⌘ Issue date
- ⌘ Reference cited
- ⌘ Specifications
- ⌘ Drawings
- ⌘ Claims

Claims

- Give a patent its power
- Exclude others from making, using, offering for sale, selling or importing the invention into the United States
- Must be enforced by the inventor or assignee in infringement cases

United States Patent Patent Number: 7,164,938 B2

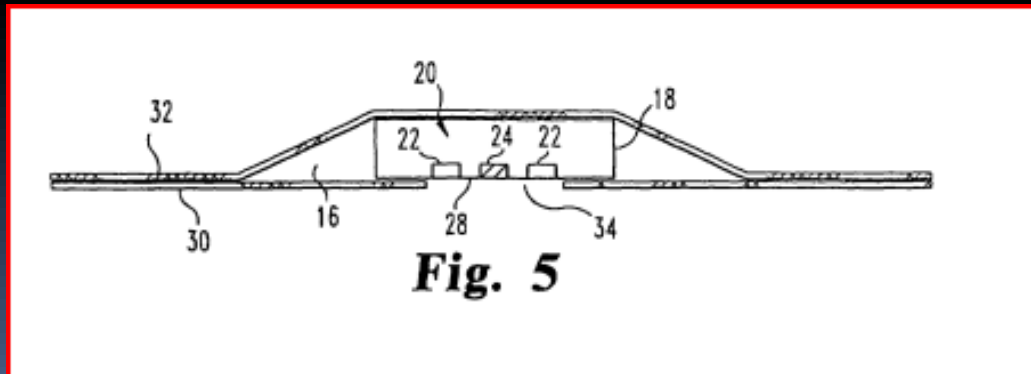
Geddes, et al Date of Patent: Jan 16, 2007

Application Date: June 20, 2005

Optical noninvasive vital sign monitor

Inventor: Leslie A. Geddes, Rebecca A. Roeder, Kirk S. Foster, and George P. Graber

Assignee: Purdue Research Foundation





US007164938B2

(12) **United States Patent**
Geddes et al.

(10) **Patent No.:** **US 7,164,938 B2**
(45) **Date of Patent:** **Jan. 16, 2007**

(54) **OPTICAL NONINVASIVE VITAL SIGN MONITOR**

(75) **Inventors:** **Leslie A. Geddes**, Lafayette, IN (US); **Rebecca A. Roeder**, Lafayette, IN (US); **Kirk S. Foster**, West Lafayette, IN (US); **George P. Graber**, Lafayette, IN (US)

(73) **Assignee:** **Purdue Research Foundation**, West Lafayette, IN (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.

(21) **Appl. No.:** **11/157,215**

(22) **Filed:** **Jun. 20, 2005**

(65) **Prior Publication Data**

US 2005/0283082 A1 Dec. 22, 2005

Related U.S. Application Data

(60) **Provisional application No. 60/581,584**, filed on Jun. 21, 2004.

(51) **Int. Cl.**
A61B 5/00 (2006.01)
A61B 5/02 (2006.01)

(52) **U.S. Cl.** **600/324; 600/344; 600/499**

(58) **Field of Classification Search** **600/310, 600/322-324, 340, 344, 483, 485, 499, 502, 600/529**

See application file for complete search history.

(56) **References Cited**

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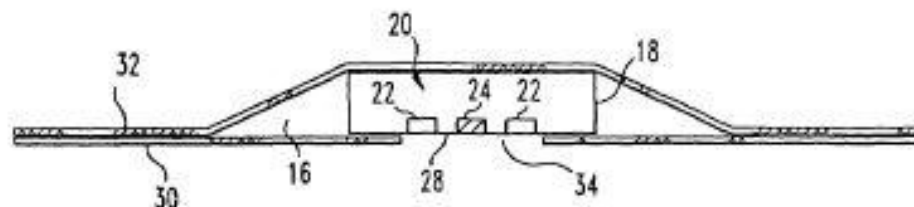
Primary Examiner—Eric F. Winakur

(74) Attorney, Agent, or Firm—William F. Bohret

(57) **ABSTRACT**

An optical noninvasive vital sign monitor comprising a reflectance-type optical sensor within a pressurizable capsule retained by a headband, the capsule having an optically transparent or translucent inner wall adapted for placement against a subject's forehead. The optical sensor is mounted on the inside surface of the pressurizable capsule's inner wall, which contacts the subject's forehead during use, and includes a light source and a photodetector aimed toward the inside surface of the inner capsule wall. One embodiment of the vital sign monitor includes optical oscillometric circuit means responsive to an output signal from the optical sensor for determining systolic pressure, mean pressure and diastolic pressure during a transition in capsule pressure between a pressure greater than normal systolic pressure and a pressure less than normal diastolic pressure.

24 Claims, 4 Drawing Sheets



United States Design Patent Patent No: D526,251 S

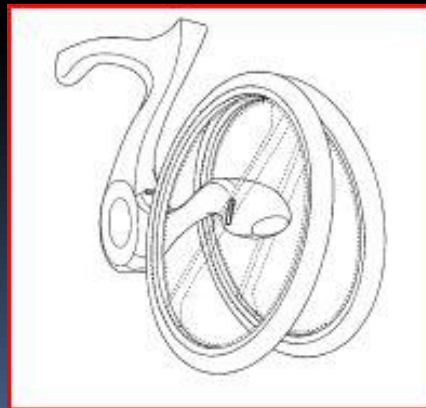
Shim, et al.

Date of Patent: **Aug 8, 2006

TRICYCLE FRAME

Inventor: S. Scott Shim, Matthew C. Grossman and
Ryan Lightbody

Assignee: Purdue Research Foundation



United States Patent Patent Number: PP16,759 P3

Janick

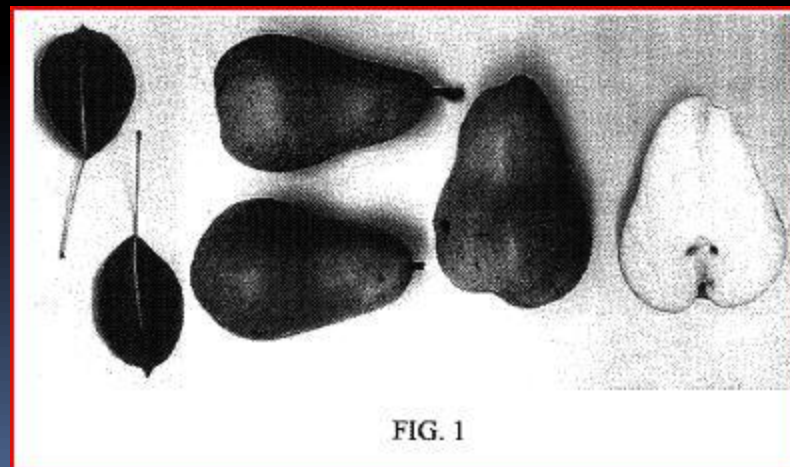
Date of Patent: July 4, 2006

Filed: Oct. 22, 2004

PEAR TREE NAMED 'H2-169'

Inventor: Jules Janick

Assignee: Purdue Research Foundation



What's New since 2001?

United States Patent Application published at 18 months

20080081724 A1

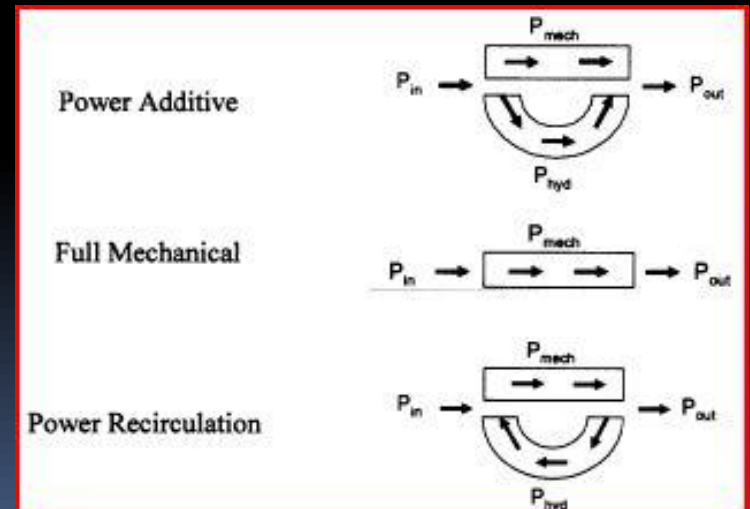
Ivantysynova; Monika
Marianne ; et al.

Pub Date Apr 3, 2008

(54) POWER SPLIT
TRANSMISSION WITH
ENERGY RECOVERY

Filed Sept 12, 2007

(76) Inventors: **Ivantysynova;
Monika Marianne**; (*Lafayette,
IN*) ; **Carl; Blake Adam**;
(*Richland, MI*) ; **Williams; Kyle
Richard**; (*Decatur, IL*)



Similarities and Differences between U.S. and Most Countries

Similarities: Patent rights are enforceable in a country in which you have an issued patent.

Differences:

- United States
 - First to invent; lab notebooks may be important to prove first to invent
 - Application must be filed within one year of publication, etc.
 - Disclose prior art
- Most countries
 - First to file, i.e. first to get application to the office.
 - No publication or public disclosure before application
 - Prior art disclosure is not necessary

Is Invention Patentable in U.S.?

- No, "*If invention is known to others in this country, or patented or described in a printed publication in this or a foreign country*"
- No, "*If invention is described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the application.*"

What is included in prior art?

- Examples?
 - ?
 - ?
 - ?
 - ?
 - ?
- Will the 12 month rule affect your publishing and presenting activities? Office of Technology Commercialization used to have a guidelines document. Contact them for details.

Access to Patents Information – Web and Engineering Library

- *USPTO web, 1790-date (print image one page at a time)*
<http://www.uspto.gov/patft/index.html>
- *Many other websites also supply the patents.*
- *Purdue's Engineering Library offers access to PubWest which permits flexible searching and downloads and printing*
- *Purdue Engineering Library has but is currently not available.*

DVD Issued Patents & Published Applications (print whole document)

- *Issued Patents* *1790-date*
- *Published Applications* *3/2001-date*