Comments On The Patent Application Drafting Assignment

I. Background

A. Most people probably found it more difficult to write the background than the DD because ICOA gives you a structure/outline and a starting point for your efforts. It’s much more difficult to get started when you have no structure, right?

Now that you have written the response to the Office Action, would you have written your Background differently?

B. Especially post KSR, the Background can be taken as admitted prior art. Most people did well in not disclosing their invention in the Background, but remember that we no longer want to recite “long-felt needs” or other “motivational” statements in the Background because Examiners are using them against us.

“Providing power to an electronic device based on the amount of exercise” is too much for the Background (more below). Reciting

C. The Background is a great opportunity for you to do some subtle advocacy for your invention. You can view it as kind of a pre-emptive response to an Office Action. For example, you disclose several prior art references in your IDS – the odds that the Examiner will cite those references against you go way, way down if you do a good job distinguishing from them in the Background. Some people go so far as to use the “1) reference teaches, 2) reference does not teach” structure that we saw for responses to 102 rejections.

D. Did you disclose all of the prior art references that you knew? Both the patents and publications and the websites? More importantly, did you use the Background as your opportunity to point out the shortcomings of the prior art so that the Examiner would be able to appreciate your invention better as he reads the Detailed Description? Be aware that the Examiner typically believes what you write in the background with regard to the PA
and doubts your later responses to office actions. Disclosing the PA references can help you more clearly point out to the Examiner what is missing in the prior art.

E. When we talk about the prior art, give the Examiner some specific “hard” difference to focus on. By “hard” we mean something that the Examiner can focus on as a potential claim limitation that differentiates you from the prior art. The fact that a specific feature is not there is a hard difference. Just stating that the prior art is not “convenient” or “satisfactory” or any other “value word” it not a hard difference that appeals to the Examiner or buys you distinction for your claims. Focus on elements that you can differentiate in your claims.

F. As you are writing the background, think about what you are writing. How does it advance the ball? How does it help the Examiner understand your differences from the prior art? How does it create a clear differentiation in the mind of the Examiner between my invention and the prior art? Are you discussing specific differences that are meaningful to your claims?

G. Don’t just point out something in the prior art and then move on. When you are pointing something out, you are doing so for a reason. STATE THE REASON. Why is the fact that you have highlighted important? What should the Examiner remember for later when he is looking at the claims with regard to what you just pointed out? Write out the conclusion that necessarily follows from the facts that you have just related. Don’t assume that the user will make the same decision with regard to the facts that you did. Be specific. Be clear.

EXAMPLE: “Prior art system is heavy and inconvenient”
Why does this matter? Emphasize the technological reason underlying this statement to provide a “hard” limitation for the Examiner. For example, the prior art may be heavy because they are including a highly sensitive and multi-directional responsive sensor that consumes a lot of power. Also, they are in constant contact with a base station which
requires that they have to carry a wireless communication system and even more batteries to power the communication system.

H. Remember that the Background is linked to your claims. Specifically, you are pointing out that the prior art does not teach what will be in your claims. You are focusing on the absence in the prior art of a specific feature that will later be appearing in your claims.

I. Most people need better descriptions of the prior art’s limitations in order to make their advocacy more effective.

Not quite the level of disclosure of the DD, but we want it to be clear to the Examiner what is going on.

That is, the Examiner needs to be clear about the SPECIFIC differences between your device and PA

1) What PA does
2) What PA does not do
3) Why that matters

II. Detailed Description

A. Validation – This is your last opportunity to point out the differences between your invention and the prior art that you will have before the Examiner looks at your claims. Make it powerfully persuasive. Link back to the Background. Be specific about limitations that are in your embodiments, but not in the prior art.

1. We need a positive recitation of the structure or function, not just a blanket statement that “thus the present system is more convenient”

2. Sometimes this is hard for people to write because they feel like they just described everything in the previous 30 pages, why should they summarize it here? Pretend that the Examiner did not read the spec (or did not read it thoroughly) and is just skipping to the end. Not that they would ever do that, right? No, of course not.
III. General comments

A. Get rid of the woulda-shoulda-coulda
B. Don’t use words that are legal terms - consist, enable, obvious
C. Don’t use Latin or legal terms – stick with English
   No via, supra, infra, e.g
D. Redeemer is a bad term – it was bad from the start, but got stuck in your head. This is an example of what we attempt to avoid by not reading the Examiner’s comments.
   Here’s one way to help you tell if a term is bad. What if the invention disclosure called it “the Activator” instead of “the Redeemer”? Would you ever have chosen the term “Redeemer” to describe the device?
   No, you would not. You can perform this same exercise with other words.
E. Cross-Reference to Related Applications – you don’t have one, so you can dump it if you want. It’s not wrong if you include it, but it will be printed like that in the issued patent.
F. If I strike-through something in your application, I am calling your attention to it.

IV. Field of the Invention

A. Lots of people tried to turn the Field of the Invention Statement into a Summary statement. However, this is still the Background and we don’t want to disclose the invention.
B. Why have a Field statement? Help classify patent.
   Review Classifications and sub-classes
   http://www.uspto.gov/go/classification/selectnumwithtitle.htm
   How about class 702/160?
   If we are aiming there, maybe we would say something like:
   “The present invention generally relates to a system for processing data received from a pedometer.”
United States Patent and Trademark Office

1. Select what you want...

- Class Schedule (HTML)
- Class Schedule (PDF)
- Class Definition (HTML)
- Class Definition (PDF)
- US-to-IPC8 Concordance (HTML)
- US-to-IPC8 Concordance (PDF)
- US-to-Locarno Concordance

2. Select a class or Search within this page with your browser.

Class Number and Title

Go 002 Apparel
Go 004 Baths, closets, sinks, and spittoons
Go 005 Beds
Go 007 Compound tools
Go 008 Bleaching and dyeing; fluid treatment and chemical modification of textiles and fibers
Go 012 Boot and shoe making
Go 014 Bridges
Go 015 Brushing, scrubbing, and general cleaning
Go 016 Miscellaneous hardware (e.g., bushing, carpet fastener, caster, door closer, panel hanger, attachable or adjunct handle, hinge, window sash balance, etc.)
Go 019 Textiles: fiber preparation
Go 023 Chemistry: physical processes
Go 024 Buckles, buttons, clasps, etc.
Go 026 Textiles: cloth finishing
Go 027 Undertaking
Go 028 Textiles: manufacturing
Go 029 Metal working
Go 030 Cutlery
Go 033 Geometrical instruments
Go 034 Drying and gas or vapor contact with solids
036 Boots, shoes, and leggings
037 Excavating
038 Textiles: ironing or smoothing
040 Card, picture, or sign exhibiting
042 Firearms
043 Fishing, trapping, and vermin destroying
044 Fuel and related compositions
047 Plant husbandry
048 Gas: heating and illuminating
049 Movable or removable closures

Class Number and Title
051 Abrasive tool making process, material, or composition
052 Static structures (e.g., buildings)
053 Package making
054 Harness for working animal
055 Gas separation
056 Harvesters
057 Textiles: spinning, twisting, and twining
059 Chain, staple, and horseshoe making
060 Power plants
062 Refrigeration
063 Jewelry
065 Glass manufacturing
066 Textiles: knitting
068 Textiles: fluid treating apparatus
069 Leather manufactures
070 Locks
071 Chemistry: fertilizers
072 Metal deforming
073 Measuring and testing
074 Machine element or mechanism
075 Specialized metallurgical processes, compositions for use therein, consolidated metal powder compositions, and loose metal particulate mixtures
076 Metal tools and implements, making
079 Button making
081 Tools
082 Turning
083 Cutting
084 Music
086 Ammunition and explosive-charge making
087 Textiles: braiding, netting, and lace making
089 Ordnance
091 Motors: expansible chamber type
092 Expansible chamber devices
095 Gas separation: processes
096 Gas separation: apparatus
099 Foods and beverages: apparatus
100 Presses
101 Printing
102 Ammunition and explosives
104 Railways
105 Railway rolling stock
106 Compositions: coating or plastic
108 Horizontally supported planar surfaces
109 Safes, bank protection, or a related device
110 Furnaces
111 Planting
112 Sewing
114 Ships
116 Signals and indicators
117 Single-crystal, oriented-crystal, and epitaxy growth processes; non-coating apparatus therefor
118 Coating apparatus
119 Animal husbandry
122 Liquid heaters and vaporizers
123 Internal-combustion engines
124 Mechanical guns and projectors
125 Stone working
126 Stoves and furnaces
127 Sugar, starch, and carbohydrates
128 Surgery

Class Number and Title
131 Tobacco
132 Toilet
134 Cleaning and liquid contact with solids
135 Tent, canopy, umbrella, or cane
136 Batteries: thermoelectric and photoelectric
137 Fluid handling
138 Pipes and tubular conduits
139 Textiles: weaving
140 Wireworking
141 Fluent material handling, with receiver or receiver coacting means
142 Wood turning
144 Woodworking
147 Coopering
148 Metal treatment
149 Explosive and thermic compositions or charges
150 Purses, wallets, and protective covers
152 Resilient tires and wheels
156 Adhesive bonding and miscellaneous chemical manufacture
157 Wheelwright machines
159 Concentrating evaporators
160 Flexible or portable closure, partition, or panel
162 Paper making and fiber liberation
163 Needle and pin making
164 Metal founding
165 Heat exchange
166 Wells
168 Farriery
169 Fire extinguishers
171 Unearthing plants or buried objects

172 Earth working

173 Tool driving or impacting

174 Electricity: conductors and insulators

175 Boring or penetrating the earth

177 Weighing scales

178 Telegraphy

180 Motor vehicles

181 Acoustics

182 Fire escape, ladder, or scaffold

184 Lubrication

185 Motors: spring, weight, or animal powered

186 Merchandising

187 Elevator, industrial lift truck, or stationary lift for vehicle

188 Brakes

190 Trunks and hand-carried luggage

191 Electricity: transmission to vehicles

192 Clutches and power-stop control

193 Conveyors, chutes, skids, guides, and ways

194 Check-actuated control mechanisms

196 Mineral oils: apparatus

198 Conveyors: power-driven

199 Type casting

200 Electricity: circuit makers and breakers

201 Distillation: processes, thermolytic

202 Distillation: apparatus

203 Distillation: processes, separatory

204 Chemistry: electrical and wave energy

205 Electrolysis: processes, compositions used therein, and methods of preparing the compositions

206 Special receptacle or package

208 Mineral oils: processes and products
209 Classifying, separating, and assorting solids
210 Liquid purification or separation
211 Supports: racks
212 Traversing hoists
213 Railway draft appliances
215 Bottles and jars
216 Etching a substrate: processes
217 Wooden receptacles
218 High-voltage switches with arc preventing or extinguishing devices
219 Electric heating
220 Receptacles
221 Article dispensing
222 Dispensing
223 Apparel apparatus
224 Package and article carriers
225 Severing by tearing or breaking
226 Advancing material of indeterminate length
227 Elongated-member-driving apparatus
228 Metal fusion bonding
229 Envelopes, wrappers, and paperboard boxes
231 Whips and whip apparatus
232 Deposit and collection receptacles
234 Selective cutting (e.g., punching)
235 Registers
236 Automatic temperature and humidity regulation
237 Heating systems
238 Railways: surface track
239 Fluid sprinkling, spraying, and diffusing
246  Railway switches and signals
248  Supports
249  Static molds
250  Radiant energy
251  Valves and valve actuation
252  Compositions
254  Implements or apparatus for applying pushing or pulling force
256  Fences
257  Active solid-state devices (e.g., transistors, solid-state diodes)
258  Railway mail delivery
260  Chemistry of carbon compounds
261  Gas and liquid contact apparatus
264  Plastic and nonmetallic article shaping or treating: processes
266  Metallurgical apparatus
267  Spring devices
269  Work holders
270  Sheet-material associating
271  Sheet feeding or delivering
273  Amusement devices: games
276  Typesetting
277  Seal for a joint or juncture
278  Land vehicles: animal draft appliances
279  Chucks or sockets
280  Land vehicles
281  Books, strips, and leaves

Class Number and Title
283  Printed matter
285  Pipe joints or couplings
289  Knots and knot tying
290  Prime-mover dynamo plants
291  Track sanders
292  Closure fasteners
293  Vehicle fenders
294 Handling: hand and hoist-line implements
295 Railway wheels and axles
296 Land vehicles: bodies and tops
297 Chairs and seats
298 Land vehicles: dumping
299 Mining or in situ disintegration of hard material
300 Brush, broom, and mop making
301 Land vehicles: wheels and axles
303 Fluid-pressure and analogous brake systems
305 Wheel substitutes for land vehicles
307 Electrical transmission or interconnection systems
310 Electrical generator or motor structure
312 Supports: cabinet structure
313 Electric lamp and discharge devices
314 Electric lamp and discharge devices: consumable electrodes
315 Electric lamp and discharge devices: systems
318 Electricity: motive power systems
320 Electricity: battery or capacitor charging or discharging
322 Electricity: single generator systems
323 Electricity: power supply or regulation systems
324 Electricity: measuring and testing
326 Electronic digital logic circuitry

Class Number and Title
327 Miscellaneous active electrical nonlinear devices, circuits, and systems
329 Demodulators
330 Amplifiers
331 Oscillators
332 Modulators
333 Wave transmission lines and networks
334 Tuners
335 Electricity: magnetically operated switches, magnets, and electromagnets
336 Inductor devices
337 Electricity: electrothermally or thermally actuated switches
338 Electrical resistors
340 Communications: electrical
341 Coded data generation or conversion
342 Communications: directive radio wave systems and devices (e.g., radar, radio navigation)
343 Communications: radio wave antennas
345 Computer graphics processing and selective visual display systems
346 Recorders
347 Incremental printing of symbolic information
348 Television
349 Liquid crystal cells, elements and systems
351 Optics: eye examining, vision testing and correcting
352 Optics: motion pictures
353 Optics: image projectors
355 Photocopying
356 Optics: measuring and testing
358 Facsimile and static presentation processing
359 Optical: systems and elements
360 Dynamic magnetic information storage or retrieval
361 Electricity: electrical systems and devices
362 Illumination
363 Electric power conversion systems
365 Static information storage and retrieval
366 Agitating
367 Communications, electrical: acoustic wave systems and devices
368 Horology: time measuring systems or devices
369 Dynamic information storage or retrieval
370 Multiplex communications
372 Coherent light generators
373 Industrial electric heating furnaces
374 Thermal measuring and testing
375 Pulse or digital communications
376 Induced nuclear reactions: processes, systems, and elements
377 Electrical pulse counters, pulse dividers, or shift registers: circuits and systems
378 X-ray or gamma ray systems or devices
379 Telephonic communications
380 Cryptography
381 Electrical audio signal processing systems and devices
382 Image analysis
383 Flexible bags
384 Bearings
385 Optical waveguides
386 Television signal processing for dynamic recording or reproducing
388 Electricity: motor control systems
392 Electric resistance heating devices
396 Photography
398 Optical communications
399 Electrophotography
400 Typewriting machines

Class Number and Title
401 Coating implements with material supply
402 Binder device releasably engaging aperture or notch of sheet
403 Joints and connections
404 Road structure, process, or apparatus
405 Hydraulic and earth engineering
406 Conveyors: fluid current
407 Cutters, for shaping
408 Cutting by use of rotating axially moving tool
409 Gear cutting, milling, or planing
410 Freight accommodation on freight carrier
411 Expanded, threaded, driven, headed, tool-deformed, or locked-threaded fastener
412 Bookbinding: process and apparatus
413 Sheet metal container making
414 Material or article handling
415 Rotary kinetic fluid motors or pumps
416 Fluid reaction surfaces (i.e., impellers)
417 Pumps
418 Rotary expandable chamber devices
419 Powder metallurgy processes
420 Alloys or metallic compositions
422 Chemical apparatus and process disinfecting, deodorizing, preserving, or sterilizing
423 Chemistry of inorganic compounds
424 Drug, bio-affecting and body treating compositions
425 Plastic article or earthenware shaping or treating: apparatus
426 Food or edible material: processes, compositions, and products
427 Coating processes
428 Stock material or miscellaneous articles
429 Chemistry: electrical current producing apparatus, product, and process
430 Radiation imagery chemistry: process, composition, or product thereof

Class Number and Title
431 Combustion
432 Heating
433 Dentistry
434 Education and demonstration
435 Chemistry: molecular biology and microbiology
436 Chemistry: analytical and immunological testing
438 Semiconductor device manufacturing: process
439 Electrical connectors
440 Marine propulsion
441 Buoys, rafts, and aquatic devices
442 Fabric (woven, knitted, or nonwoven textile or cloth, etc.)
445 Electric lamp or space discharge component or device manufacturing
446 Amusement devices: toys
449 Bee culture
450 Foundation garments
451 Abrading
452 Butchering
453 Coin handling
454 Ventilation
455 Telecommunications
460 Crop threshing or separating
462 Books, strips, and leaves for manifolding

463 Amusement devices: games

464 Rotary shafts, gudgeons, housings, and flexible couplings for rotary shafts
470 Threaded, headed fastener, or washer making: process and apparatus

472 Amusement devices

473 Games using tangible projectile
474 Endless belt power transmission systems or components
475 Planetary gear transmission systems or components

Class Number and Title
476 Friction gear transmission systems or components
477 Interrelated power delivery controls, including engine control
482 Exercise devices
483 Tool changing
492 Roll or roller
493 Manufacturing container or tube from paper; or other manufacturing from a sheet or web
494 Imperforate bowl: centrifugal separators
501 Compositions: ceramic
502 Catalyst, solid sorbent, or support therefor: product or process of making
503 Record receiver having plural interactive leaves or a colorless color former, method of use, or developer therefor
504 Plant protecting and regulating compositions
505 Superconductor technology: apparatus, material, process
506 Combinatorial chemistry technology: method, library, apparatus
507 Earth boring, well treating, and oil field chemistry
508 Solid anti-friction devices, materials therefor, lubricant or separant compositions for moving solid surfaces, and miscellaneous mineral oil compositions
510 Cleaning compositions for solid surfaces, auxiliary compositions therefor, or processes of preparing the compositions
512 Perfume compositions
514 Drug, bio-affecting and body treating compositions
516 Colloid systems and wetting agents; subcombinations thereof; processes of
<table>
<thead>
<tr>
<th>Class Number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>518</td>
<td>Chemistry: fischer-tropsch processes; or purification or recovery of products thereof</td>
</tr>
<tr>
<td>520</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>521</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>522</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>523</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>524</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>525</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>526</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>527</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>528</td>
<td>Synthetic resins or natural rubbers -- part of the class 520 series</td>
</tr>
<tr>
<td>530</td>
<td>Chemistry: natural resins or derivatives; peptides or proteins; lignins or reaction products thereof</td>
</tr>
<tr>
<td>532</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>534</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>536</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>540</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>544</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>546</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>548</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>549</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>552</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>554</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>556</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>558</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>560</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>562</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>564</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>566</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>568</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>570</td>
<td>Organic compounds -- part of the class 532-570 series</td>
</tr>
<tr>
<td>585</td>
<td>Chemistry of hydrocarbon compounds</td>
</tr>
<tr>
<td>588</td>
<td>Hazardous or toxic waste destruction or containment</td>
</tr>
<tr>
<td>600</td>
<td>Surgery</td>
</tr>
</tbody>
</table>
601 Surgery: kinesitherapy
602 Surgery: splint, brace, or bandage
604 Surgery
606 Surgery
607 Surgery: light, thermal, and electrical application
623 Prosthesis (i.e., artificial body members), parts thereof, or aids and accessories therefor
700 Data processing: generic control systems or specific applications
701 Data processing: vehicles, navigation, and relative location
702 Data processing: measuring, calibrating, or testing
703 Data processing: structural design, modeling, simulation, and emulation
704 Data processing: speech signal processing, linguistics, language translation, and audio compression/decompression
705 Data processing: financial, business practice, management, or cost/price determination
706 Data processing: artificial intelligence
707 Data processing: database and file management or data structures
708 Electrical computers: arithmetic processing and calculating
709 Electrical computers and digital processing systems: multicomputer data transferring
710 Electrical computers and digital data processing systems: input/output
711 Electrical computers and digital processing systems: memory
712 Electrical computers and digital processing systems: processing architectures and instruction processing (e.g., processors)
713 Electrical computers and digital processing systems: support
714 Error detection/correction and fault detection/recovery
715 Data processing: presentation processing of document, operator interface processing, and screen saver display processing
716 Data processing: design and analysis of circuit or semiconductor mask
717 Data processing: software development, installation, and management
718 Electrical computers and digital processing systems: virtual machine task or process management or task management/control
719 Electrical computers and digital processing systems: interprogram communication or interprocess communication (ipc)
720 Dynamic optical information storage or retrieval
725 Interactive video distribution systems
726 Information security
800 Multicellular living organisms and unmodified parts thereof and related processes
850 Scanning-probe techniques or apparatus; applications of scanning-probe techniques, e.g., scanning probe microscopy [spm]
901 Robots
902 Electronic funds transfer
903 Hybrid electric vehicles (hevs)
930 Peptide or protein sequence
968 Horology
976 Nuclear technology
Class Number and Title
977 Nanotechnology
984 Musical instruments
987 Organic compounds containing a bi, sb, as, or p atom or containing a metal atom of the 6th to 8th group of the periodic system
D01 Edible products
D02 Apparel and haberdashery
D03 Travel goods and personal belongings
D04 Brushware
D05 Textile or paper yard goods; sheet material
D06 Furnishings
D07 Equipment for preparing or serving food or drink not elsewhere specified
D08 Tools and hardware
D09 Packages and containers for goods
D10 Measuring, testing, or signalling instruments
D11 Jewelry, symbolic insignia, and ornaments
D12 Transportation
D13 Equipment for production, distribution, or transformation of energy
D14 Recording, communication, or information retrieval equipment
D15 Machines not elsewhere specified
D16 Photography and optical equipment
D17 Musical instruments
D18 Printing and office machinery
D19 Office supplies; artists’ and teachers’ materials
D20 Sales and advertising equipment
D21 Games, toys, and sports goods
D22 Arms, pyrotechnics, hunting and fishing equipment
D23 Environmental heating and cooling; fluid handling and sanitary equipment
D24 Medical and laboratory equipment
D25 Building units and construction elements
D26 Lighting

Class Number and Title
D27 Tobacco and smokers' supplies
D28 Cosmetic products and toilet articles
D29 Equipment for safety, protection, and rescue
D30 Animal husbandry
D32 Washing, cleaning, or drying machine
D34 Material or article handling equipment
D99 Miscellaneous
PLT Plants

KEY: online business system = fees = forms = help = laws/regulations = definition (glossary)

The Inventors Assistance Center is available to help you on patent matters. Send questions about USPTO programs and services to the USPTO Contact Center (UCC). You can suggest USPTO webpages or material you would like featured on this section by E-mail to the webmaster@uspto.gov. While we cannot promise to accommodate all requests, your suggestions will be considered and may lead to other improvements on the website.

HOME | SITE INDEX | SEARCH | eBUSINESS | HELP | PRIVACY POLICY

Last Modified: 04/03/2009 09:00:25

5/1/2009 1:20 AM
MEASUREMENT SYSTEM IN A SPECIFIC ENVIRONMENT

- **Earth science**
- **Weather**
  - **Lightning**
  - **Topography (e.g., land mapping)**
- **Well logging or borehole study**
- **By induction or resistivity logging tool**
- **By radiation (e.g., nuclear, gamma, X-ray)**
- **Drilling**
- **Dipmeter**
- **Formation characteristic**
- **Fluid flow investigation**
- **Hydrocarbon prospecting**
- **Seismology**
  - **Earthquake or volcanic activity**
  - **Specific display system (e.g., mapping, profiling)**
  - **Filtering or noise reduction/removal**
  - **Velocity of seismic wave**
  - **Biological or biochemical**
  - **Gene sequence determination**
  - **Cell count or shape or size analysis (e.g., blood cell)**
  - **Chemical analysis**
  - **Quantitative determination (e.g., mass, concentration, density)**
  - **Gaseous mixture (e.g., solid-gas, liquid-gas, gas-gas)**
  - **Liquid mixture (e.g., solid-liquid, liquid-liquid)**
  - **By particle count**
  - **Molecular structure or composition determination**
  - **Using radiant energy**
  - **Particle size determination**
  - **Chemical property analysis**
  - **Specific operation control system**
  - **Specific signal data processing**
  - **Mechanical measurement system**
  - **Wear or deterioration evaluation**
  - **Flaw or defect detection**
  - **Location**
  - **Electromagnetic (e.g., eddy current)**
Sound energy (e.g., ultrasonic)
Radiant energy (e.g., X-ray, infrared, laser)
Force or torque measurement
Stress or strain measurement
Torsional, shear, tensile, or compression
Mechanical work or power measurement
Flow metering
Count or pulse
Pressure, resistive, or capacitive sensor
Acoustic
Radiant energy
Fluid measurement (e.g., mass, pressure, viscosity)
Leak detecting
Capacitive sensor
Resistive sensor
Acoustic or vibration sensor
Liquid level or volume determination
Vibration detection
Electrical signal parameter measurement system
For electrical fault detection
Fault location
Power parameter
Power logging (e.g., metering)
Including communication means
Battery monitoring
Voltage or current
Including related electrical parameter
Waveform analysis
Display of waveform
Having specified user interface (e.g., marker, menu)
Signal quality (e.g., timing jitter, distortion, signal-to-noise ratio)
Waveform extraction
Waveform-to-waveform comparison
Phase comparison
Identification of waveform
Signal-in-signal determination
Frequency
Frequency spectrum
Using Fourier method
By count (e.g., pulse)
Time-related parameter (e.g., pulse-width, period, delay, etc.)
Specified memory location generation for storage
Quality evaluation
Having judging means (e.g., accept/reject)
Sampling Inspection Plan
Quality control
CALIBRATION OR CORRECTION SYSTEM
Linearization of measurement
Zeroing (e.g., null)
Zero-full scaling
- Timing (e.g., delay, synchronization)
- Error due to component compatibility
- Having interchangeable sensors or probes
- Direction (e.g., compass)
- By another sensor
- Position measurement
- Coordinate positioning
- Speed
- Length, distance, or thickness
- Pressure
- Temperature
- Fluid or fluid flow measurement
- Weight
- Tare weight adjusted
- Acoustic
- Sensor or transducer
- For mechanical system
- Signal frequency or phase correction
- Circuit tuning (e.g., potentiometer, amplifier)

TESTING SYSTEM
- For transfer function determination
- Binary signal stimulus (e.g., pulse)
- Noise signal stimulus (e.g., white noise)
- Sinusoidal signal stimulus
- Of mechanical system
- Pneumatic or hydraulic system
- Electromechanical or magnetic system
- Of sensing device
- Of circuit
- Testing multiple circuits
- Including program initialization (e.g., program loading) or code selection (e.g., program creation)
- Including input/output or test mode selection means
- Including multiple test instruments
- Including specific communication means
- Including program set up
- Signal generation or waveform shaping
- Timing signal
- Signal conversion

MEASUREMENT SYSTEM
- Article count or size distribution
- Quantitative determination by weight
- Temperature measuring system
- Body temperature
- Thermal protection
- By resistive means
- By radiant energy
- Infrared
- Thermal related property
- Density
- A P 138 - Pressure
  A P 139 - Exerted on or by a living body
  A P 140 - Within an enclosure
  A P 141 - Accelerometer
  A P 142 - Speed
  A P 143 - By radar or sonar
  A P 144 - Of aircraft
  A P 145 - Rotational speed
  A P 146 - Averaging performed
  A P 147 - Specific mathematical operation performed
  A P 148 - For wheel speed
  A P 149 - By distance and time measurement
  A P 150 - Orientation or position
  A P 151 - Angular position
  A P 152 - 3D position
  A P 153 - 3D orientation
  A P 154 - Inclinometer
  A P 155 - Dimensional determination
  A P 156 - Area or volume
  A P 157 - Radius or diameter
  A P 158 - Linear distance or length
  A P 159 - By reflected signal (e.g., ultrasonic, light, laser)
  A P 160 - Pedometer
  A P 161 - Electronic ruler
  A P 162 - Micrometer
  A P 163 - By rotary encoding means
  A P 164 - Electronic tape measure
  A P 165 - Odometer
  A P 166 - Height or depth
  A P 167 - Contouring
  A P 168 - By probe (e.g., contact)
  A P 169 - Center of gravity
  A P 170 - Thickness or width
  A P 171 - By ultrasonic
  A P 172 - By radiant energy (e.g., X-ray, light)
  A P 173 - Weight
  A P 174 - Payload
  A P 175 - Of moving article
  A P 176 - Time duration or rate
  A P 177 - Due time monitoring (e.g., medication clock, maintenance interval)
  A P 178 - Timekeeping (e.g., clock, calendar, stopwatch)
  A P 179 - Statistical measurement
  A P 180 - Histogram distribution
  A P 181 - Probability determination
  A P 182 - Performance or efficiency evaluation
  A P 183 - Diagnostic analysis
  A P 184 - Maintenance
  A P 185 - Cause or fault identification
  A P 186 - Computer and peripheral benchmarking
  A P 187 - History logging or time stamping
Remote supervisory monitoring

- Measured signal processing
- Signal extraction or separation (e.g., filtering)
- For noise removal or suppression
- By threshold comparison
- By mathematical attenuation (e.g., weighting, averaging)
- Subtracting noise component
- Using matrix operation
- Having multiple filtering stages
- Measurement conversion processing (e.g., true-to-RMS value)
- Averaging

FOREIGN ART COLLECTIONS

FOR000  CLASS-RELATED FOREIGN DOCUMENTS
Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

APPLICATIONS (364/400)

- FOR100  Earth sciences (e.g., weather) (364/420)
  FOR101  Seismology (364/421)
  FOR102  Well logging (364/422)
- FOR103  Electrical/electronic engineering (364/480)
  FOR104  Measuring or testing (364/481)
- FOR105  Impedance (364/482)
- FOR106  Voltage, current, or power (364/483)
  FOR107  Frequency (364/484)
- FOR108  Frequency spectrum (364/485)
- FOR109  Pulse (364/486)
- FOR110  Waveform (364/487)
- FOR111  Electrical/electronic engineering (364/480)
- FOR112  Power generation or distribution (364/492)
  FOR113  Economic dispatching (364/493)
- FOR114  Turbine or generator control (364/494)
  FOR115  Chemical and engineering sciences (364/496)
  FOR116  Chemical analysis (364/497)
  FOR117  Spectrum analysis (composition) (364/498)
  FOR118  Chemical property (364/499)
- FOR119  Chemical process control (364/500)
  FOR120  Distillation (364/501)
  FOR121  Physical mixing or separation (364/502)
  FOR122  Kilns (364/503)
  FOR123  Mechanical and civil engineering (364/505)
  FOR124  Measuring or testing (364/506)
- FOR125  Flaw or defect (364/507)
  FOR126  Stress, strain, or vibration (364/508)
  FOR127  Fluid (364/509)
  FOR128  Fluid flow (364/510)
  FOR129  Power (364/511)
FOR130  Physics (364/524)
FOR131  Optics or photography (364/525)
FOR132  Color analysis (364/526)
FOR133  Atomic or nuclear physics (364/527)
FOR134  MEASURING, TESTING, OR MONITORING (364/550)
FOR135  Measuring and evaluating (e.g., performance) (364/551.01)
FOR136  Of machine tool (364/551.02)
FOR137  Quality control determinations (364/552)
FOR138  Transfer function evaluation (364/553)
FOR139  Statistical data (e.g., stochastic variable) (364/554)
FOR140  Particle count, distribution, size (364/555)
FOR141  For basic measurements (364/556)
FOR142  Temperature (364/557)
FOR143  Pressure or density (364/558)
FOR144  Orientation (364/559)
FOR145  Dimension (364/560)
FOR146  Distance (364/561)
FOR147  Length or height (364/562)
FOR148  Width or thickness (364/563)
FOR149  Area or volume (364/564)
FOR150  Rate of change of dimension (e.g., speed) (364/565)
FOR151  Acceleration and further derivatives (364/566)
FOR152  Weight (364/567)
FOR153  Basis weight (364/568)
FOR154  Time or time intervals (364/569)
FOR155  Operations performed (364/570)
FOR156  Calibration or compensation
FOR157  Having mathematical operation on initial measurement data (364/571.02)
FOR158  Including environmental factors (e.g., temperature) (364/571.03)
FOR159  Including predetermined stored data (364/571.04)
FOR160  Using difference involving initial measurement data (364/571.05)
FOR161  Using analog calculating elements (364/571.06)
FOR162  By table look-up (364/571.07)
FOR163  Using operator provided data (364/571.08)
FOR164  Filtering (364/572)
FOR165  Linearization (364/573)
FOR166  Noise reduction (364/574)
FOR167  Averaging (364/575)
FOR168  Fourier analysis (364/576)
FOR169  Interpolation/extrapolation (364/577)
FOR170  With control of testing or measuring apparatus (364/579)
FOR171  Programmed testing conditions (364/580)
FOR172  Weighting (364/581)
FOR173  Normalization (364/582)
CLASS 702, DATA PROCESSING: MEASURING, CALIBRATING, OR TESTING

127          MEASUREMENT SYSTEM:
155          . Dimensional determination:
158          .. Linear distance or length:
160          ... Pedometer: