

IP Law

Prof. Roger Ford
Class 4 – February 18, 2019
Patent Law Introduction

(post-AIA) 35 U.S.C. § 101 — Inventions patentable

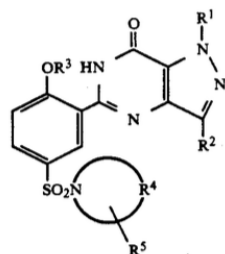
Whoever **invents or discovers** any **new and useful process, machine, manufacture, or composition of matter**, or any new and useful **improvement thereof**, may obtain a patent therefor, subject to the conditions and requirements of this title.

Sildenafil citrate

Claim 1 of
U.S. patent no.
5,250,534

We claim:

1. A compound of the formula:



(I)

wherein

R¹ is H, C₁-C₃ alkyl, C₃-C₅ cycloalkyl or C₁-C₃ perfluoroalkyl;

R² is H, C₁-C₆ alkyl optionally substituted by OH, C₁-C₃ alkoxy or C₃-C₆ cycloalkyl, or C₁-C₃ perfluoroalkyl;

R³ is C₁-C₆ alkyl, C₃-C₆ alkenyl, C₃-C₆ alkynyl, C₃-C₇ cycloalkyl, C₁-C₆ perfluoroalkyl or (C₃-C₆ cycloalkyl)C₁-C₆ alkyl;

R⁴ taken together with the nitrogen atom to which it is attached completes a 4-N-(R⁶)-piperazinyl group;

R⁵ is H, C₁-C₄ alkyl, C₁-C₃ alkoxy, NR⁷R⁸, or CONR⁷R⁸;

R⁶ is H, C₁-C₆ alkyl, (C₁-C₃ alkoxy) C₂-C₆ alkyl hydroxy C₂-C₆ alkyl, (R⁷R⁸N)C₂-C₆ alkyl, (R⁷R⁸NCO)C₁-C₆ alkyl, CONR⁷R⁸, CSNR⁷R⁸ or C(NH)NR⁷R⁸;

R⁷ and R⁸ are each independently H, C₁-C₄ alkyl, (C₁-C₃ alkoxy)C₂-C₄ alkyl or hydroxy C₂-C₄ alkyl; and

pharmaceutically acceptable salts thereof.

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

(10) Patent No.: **US 6,263,732 B1**
(45) Date of Patent: **Jul. 24, 2001**

(54) **MEASURING CUP**

(75) Inventors: **Michael G. Hoeting; Stephen C. Hoeting**, both of Cincinnati, OH (US)

(73) Assignee: **Bang Zoom Design**, Cincinnati, OH (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.: **09/313,686**
(22) Filed: **May 18, 1999**

(51) Int. Cl.⁷ **G01F 19/00**
(52) U.S. Cl. **73/427; 33/1 V; D10/46.2**

(58) Field of Search: **33/1 V; 1 F; 522; 33/679.1; 73/426, 427; 215/365, 366; D10/46.2; 222/23, 25, 26**

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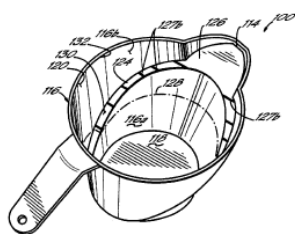
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Primary Examiner—Christopher W. Fulton
(74) Attorney, Agent, or Firm—Wood, Herron & Evans, L.L.P.

(57) **ABSTRACT**

A measuring cup has at least one ramp formed in relief radially inwardly on the inside surface of the measuring cup sidewall. At least one ramp rises from about the bottom edge of the sidewall to about the top edge of the sidewall. The indicia on an upwardly directed surface of the at least one ramp allows a user to look downwardly into the measuring cup to visually detect the volume level of the contents in the measuring cup, thereby eliminating the need to look horizontally at the cup at eye level. Preferably the cup has two ramps, with at least one of standard units, and another with metric units.

1 Claim, 2 Drawing Sheets



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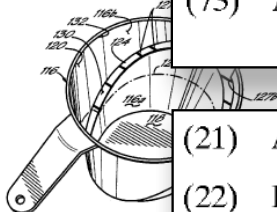
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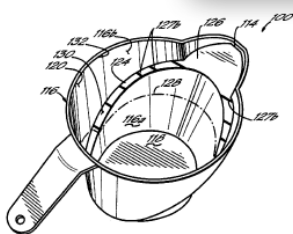
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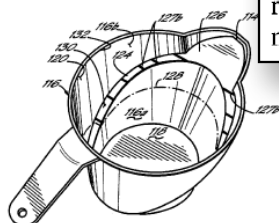
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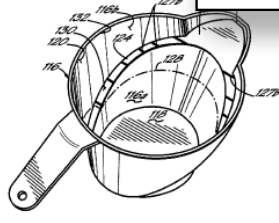
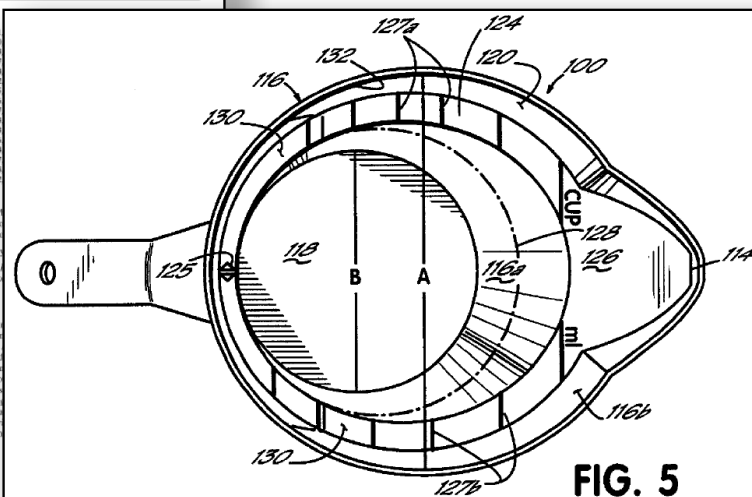
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(73) Assignee: Bang Zoom Design,
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(51) **Int. Cl.⁷**

(52) **U.S. Cl.**

73/42

(58) **Field of Search** SEARCHED INDEXED

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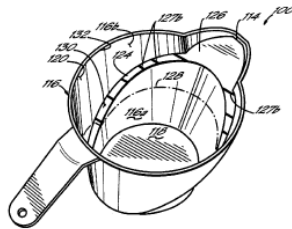
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1 Claim, 2 Drawing Sheets



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BACKGROUND OF THE INVENTION

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(S1) **Int. Cl.**² XXXXXXXXXXXX

(52) **U.S. Ct.**
(58) **Field of Search**

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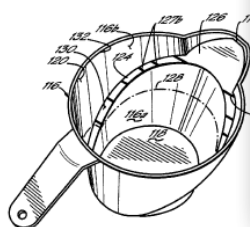
Measuring cups are known. Measuring cups can be made from a variety of materials, including plastic, metal and

glass. One of the market today is Pyrex® which is to which it is difficult for others. Users with bad knees, a bad back, or

The utility of the measuring cup may be limited in patients with arthritis, for example, who may not only have substantial difficulty in stooping over to accurately read the volume of contents in a measuring cup placed on a level surface, but may also have just as much difficulty in lifting a measuring cup to eye level and holding the cup steady to read the

While the above-described methods for determining the volume of contents in a measuring cup may seem simple enough for most users, these methods can prove to be difficult for others. Users with bad knees, a bad back, or arthritis, for example, may not only have substantial difficulty in stooping over to accurately read the volume of contents in a measuring cup placed on a level surface, but may also have just as much difficulty in lifting a measuring cup to eye level and holding the cup steady to read the volume of contents held therein. When precise measurement of the volume of contents within a measuring cup is critical to a task, the simple actions of bending over or lifting a measuring cup to eye level, which seem easy to some users, may become difficult and uncomfortable for others.

Measuring the volume of cooking ingredients using prior art measuring cups can also be frustrating. As mentioned above, it can be difficult for a user to stoop over to read the level of contents when placed on a level surface or when lifted to eye level. An unsteady hand not only makes the





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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

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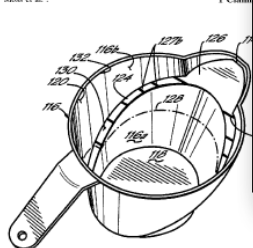
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Jigger Photographs: Healed relief on inside wall, information concerning original cited by examiner.

Primary Examiner—Ch
74) Attorney, Agent, o
L.P.

a measuring cup has a radial inwardly on the sidewall. At least one radial indicia of the sidewall to about the radial indicia on an upwardly ramp allows a user to locate the cup to visually detect the measuring cup, thereby orientally at the cup at eye level, with at least one metric units.



FIGS. 1–3 show a first preferred embodiment of the present inventive measuring cup 10. Generally, the measuring cup 10 is integrally formed out of a suitable material and has a handle 12 and a spout 14 integrally attached to a substantially vertical sidewall 16. The measuring cup 10 has a base or bottom wall 18 integrally attached around its perimeter to the bottom edge of the sidewall 16. The cup 10 has an open upper end.

The wall 16 has an inside surface 20 and an outside surface 22 from which ramps 24a, 24b are formed in relief. The measuring cup 10 is molded from any suitable food grade plastic known in the art, however, it will be understood that the measuring cup 10 may be manufactured by any suitable process. It will also be understood that the measuring cup 10 may be made of any other suitable material known in the art, e.g., Pyrex®, metal.

The ramps **24a**, **24b** are located on opposite sides of the cup **10** but are identical in construction. Therefore, only one such ramp is described. Each ramp has a ramp base, or



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

(1) Patent No.: US 6,263,732 B1

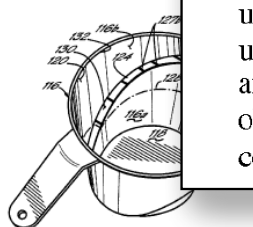
What is claimed is:

1. A measuring device, comprising:

a bottom wall and a generally vertical and encircling side wall having a lower edge and an upper edge, said sidewall defining an upwardly opening cup with an upper end;

a spout attached integrally to said sidewall; and

a pair of continuously sloping ramps formed integrally with and radially inward in relief from said sidewall, said ramps extending from about said bottom wall generally opposite said spout toward said open upper end generally adjacent said spout, wherein said ramp is coextensive with said spout, said ramp having an upwardly directed surface and indicia located on said upwardly directed surface being at least one of standard and metric units of measurement providing a readily observable indication of the volume of the contents contained within said cup.



a p

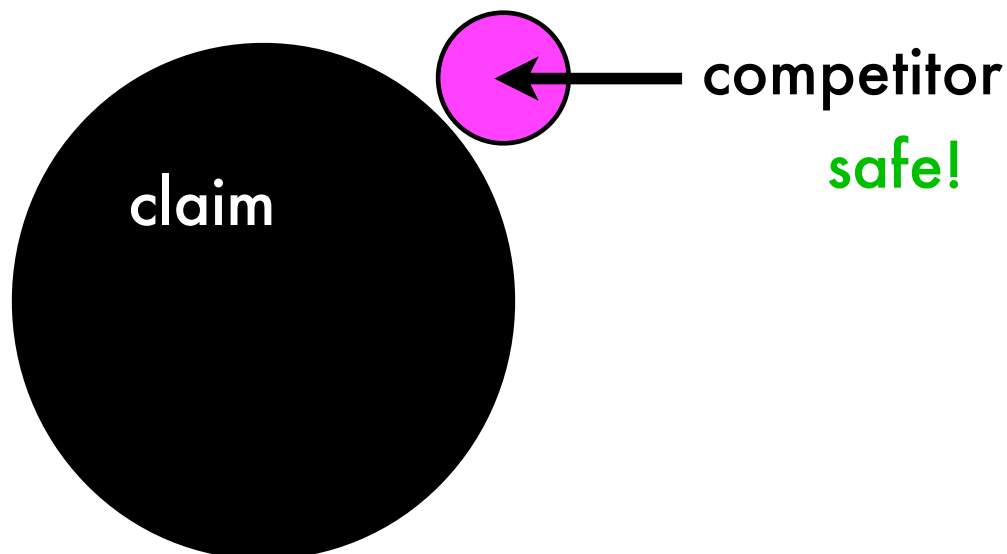
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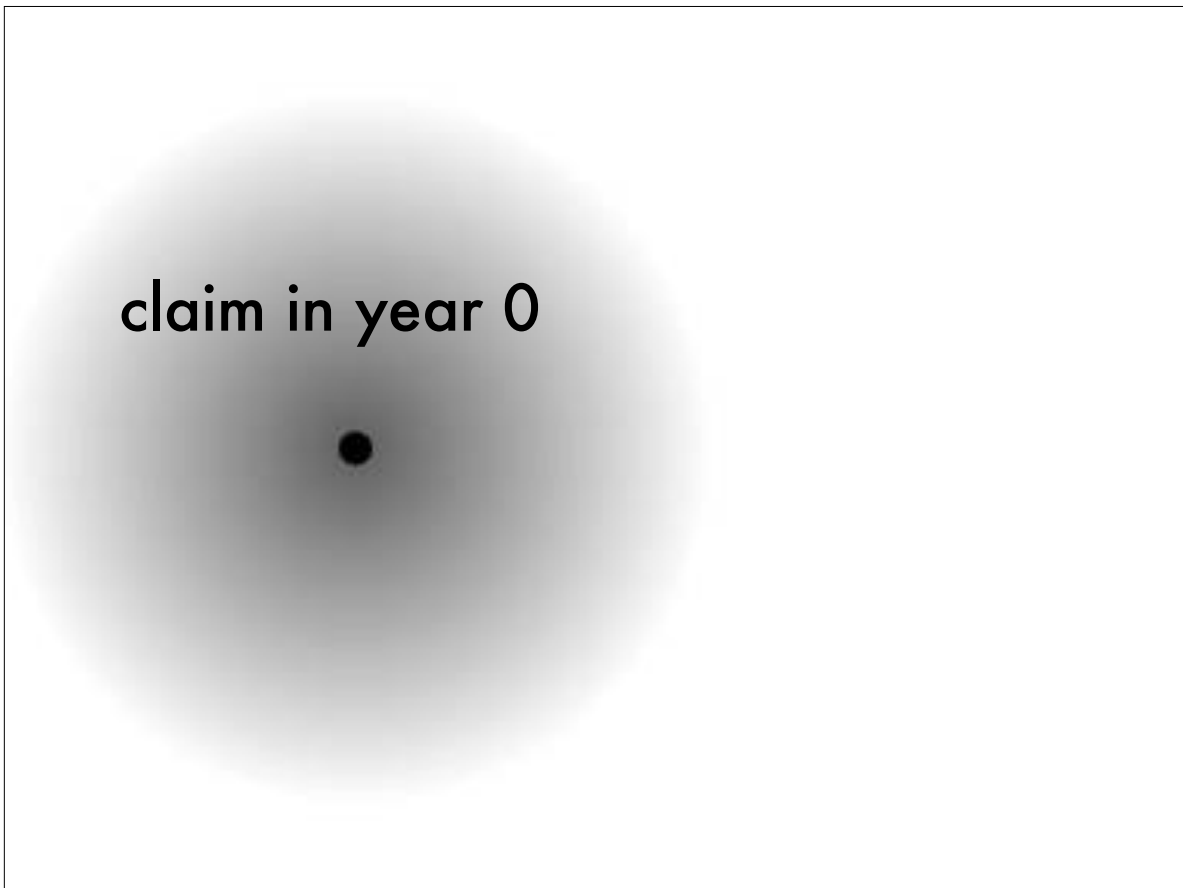
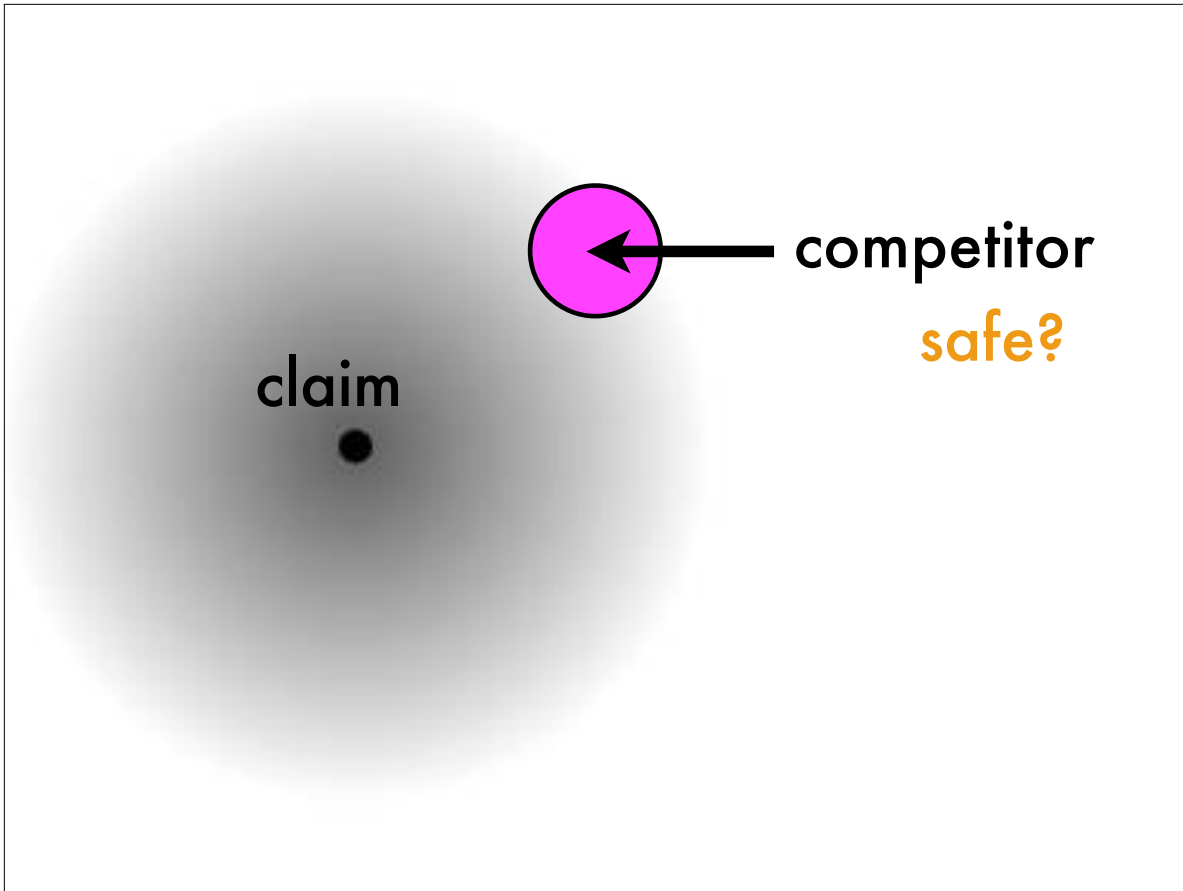
(post-AIA) 35 U.S.C. § 112 — Specification

(a) In General.— The specification shall contain a **written description of the invention**, and of the **manner and process of making and using it**, in such full, clear, concise, and exact terms as to **enable any person skilled in the art** to which it pertains, or with which it is most nearly connected, **to make and use the same**, and shall set forth the **best mode** contemplated by the inventor or joint inventor of carrying out the invention.

(b) Conclusion.— The specification shall conclude with **one or more claims particularly pointing out and distinctly claiming** the subject matter which the inventor or a joint inventor regards as the invention.

* * *





claim in year 0

industry
in year 3

claim in year 0

claim in
year 4



(10) Patent No.: US 6,185,590 B1
(45) Date of Patent: Feb. 6, 2001

- | | | | |
|-------------|---------|------------------------|---------|
| 5,586,240 | 12/1996 | Khan et al. . | |
| 5,613,090 * | 3/1997 | Willems | 709/302 |
| 5,615,401 | 3/1997 | Harscoet et al. . | |
| 5,680,618 * | 10/1997 | Freund | 707/7 |
| 5,774,720 * | 6/1998 | Borgendale et al. | 367/83 |
| 5,920,725 * | 7/1999 | Ma et al. | 395/12 |

OTHER PUBLICATIONS

Multiprotocol Management Agents: A Look At an Implementation and the Issues to Consider", Baktha Muralidhan, IEEE Journal on Selected Areas in Communications, vol. 11, No. 9, Dec. 1993.

The Definition of Interoperability Architectures for Intelligent Devices Using Abstract Models", Elin L. Klaseen, et al., IEEE, (1995), pp. 237-245.

cited by examiner

74) Attorney, Agent, or Firm—Irah H. Donner; Hale and Associates, LLP.

A. M. GARDNER, A. GORDON

- an image viewer process views at least one document image including an electronic document image, and performing viewing operations to the electronic document image. The process includes the step of selecting, by the user, one of a plurality of image viewing perspectives. Each of the plurality of image viewing perspectives provide the user the capability of viewing the document image in accordance with a different predefined user perspective. The process also includes the steps of selecting, by the user, using the image viewer process the document image to be viewed, and retrieving, by the image viewer process, the document image. The process also includes the step of displaying, by the image viewer process, the selected document image in accordance with an image viewing perspective selected by the user.

with a different predefined user perspective. The process

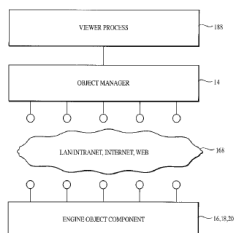
also includes the steps of selecting, by the user, using the image viewer process the document image to be viewed, and retrieving, by the image viewer process, the document

accordance with an image viewing perspective selected by the user.

22 Claims 23 Drawing Sheets

44 Claims 45 Drawing sheets

22 Claims, 23 Drawing Sheets



- **Filing date:
Oct. 15, 1997**
- **"Process and architecture for use on stand-alone machine and in distributed computer architecture for client server and/or intranet and/or internet operating environments"**

→ Filing date:
Oct 15 1997

Related U.S. Application Data

- (63) Continuation-in-part of application No. 08/911,083, filed on Aug. 14, 1997.
- (60) Provisional application No. 60/028,129, filed on Oct. 18, 1996, provisional application No. 60/028,522, filed on Oct. 18, 1996, provisional application No. 60/028,128, filed on Oct. 18, 1996, provisional application No. 60/028,697, filed on Oct. 18, 1996, provisional application No. 60/028,639, filed on Oct. 18, 1996, and provisional application No. 60/028,685, filed on Oct. 18, 1996.

architecture for
client server and/
or intranet and/or
internet operating
environments"



(10) Patent No.: US 6,185,590 B1
(45) Date of Patent: Feb. 6, 2001

- | | | | |
|-----------|-----------|-------------------|---------|
| 5,586,240 | 12/1996 | Khan et al. . | |
| 5,613,090 | * 3/1997 | Willems | 709/302 |
| 5,615,401 | 3/1997 | Hanscoet et al. . | |
| 5,680,618 | * 10/1997 | Freund | 707/7 |
| 5,774,720 | 6/1998 | Borgendale et al. | 367/83 |
| 5,920,725 | * 7/1999 | Ma et al. | 395/12 |

OTHER PUBLICATIONS

Multiprotocol Management Agents: A Look At an Implementation and the Issues to Consider", Baktha Muralidhan, IEEE Journal on Selected Areas in Communications, vol. 11, No. 9, Dec. 1993.

Related U.S.

1

continuation in part c

- Continuation-in-part of U.S. Pat. No. 5,441,000, filed Aug. 14, 1997.
Provisional application of U.S. Pat. No. 60/000,000, filed Aug. 14, 1996.
Provisional application of U.S. Pat. No. 60/000,001, filed Aug. 14, 1996.

3. 1006 provisional

5, 1996, provisional

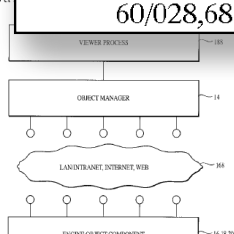
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On Oct. 18, 1996, pro-

1 Oct. 10, 1990, p. 10

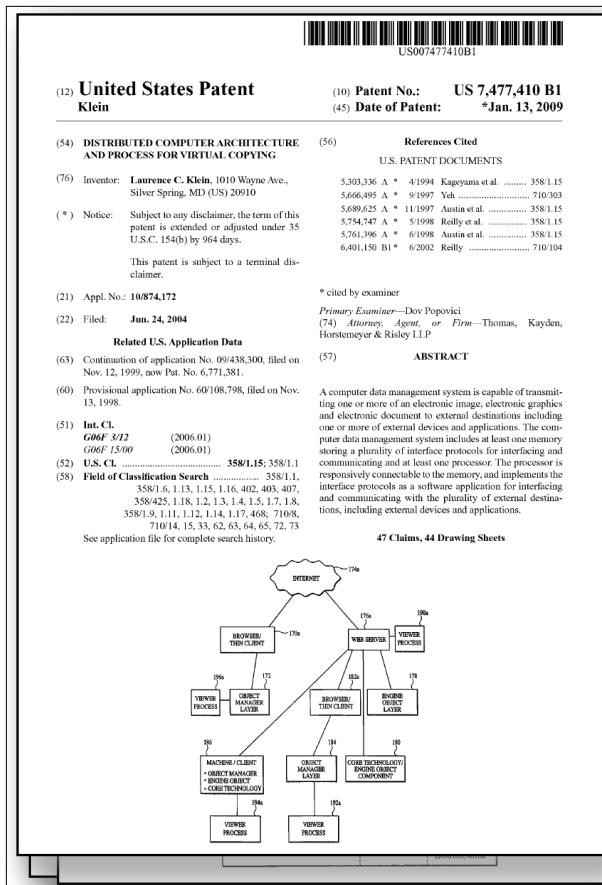
led on Oct. 18, 19

On Oct. 18



(c) providing, on a client configured to be connectable to the server and optionally configured to be connectable to the another server, an object manager layer communicable with and managing the at least one engine component or the another viewer process via the substantially consistent interface.

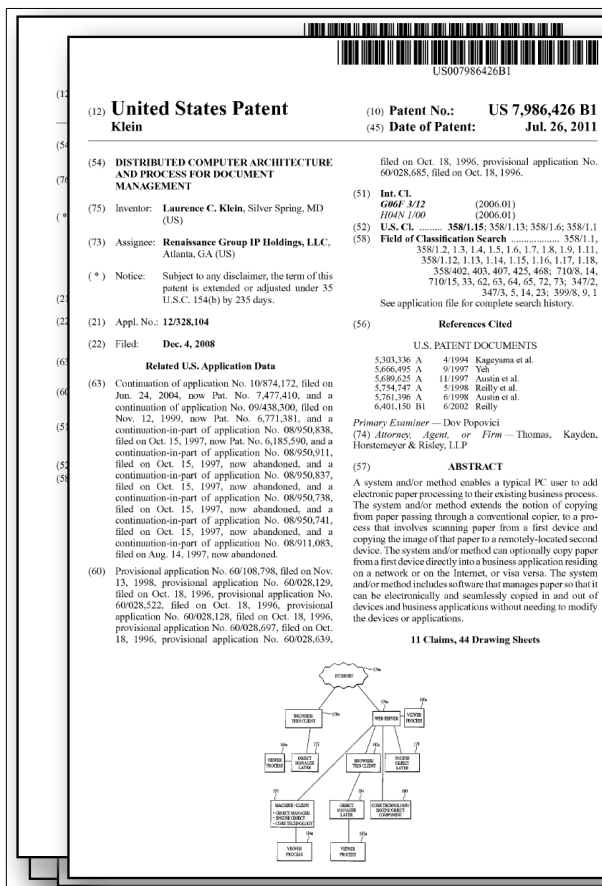
→ “Distributed
computer
architecture and
process for virtual
copying”



U.S. Patent No. 7,477,410

→ Filing date:
June 24, 2004

→ "Distributed
computer
architecture and
process for virtual
copying"



U.S. Patent No. 7,986,426

→ Filing date:
Dec. 4, 2008

→ "Distributed
computer
architecture and
process for
document
management"

(12) **United States Patent**
Klein

(54) **DISTRIBUTED COMPUTER ARCHITECTURE AND PROCESS FOR DOCUMENT MANAGEMENT**

(75) Inventor: **Laurence C. Klein, Silver Spring, MD (US)**

(73) Assignee: **Renaissance Group IP Holdings, Atlanta, GA (US)**

(*) Notice: Subject to any disclaimer, this patent is extended or adjusted pursuant to 35 U.S.C. 154(b) by 235 days.

(21) Appl. No.: **12/328,104**

(22) Filed: **Dec. 4, 2008**

Related U.S. Application Data

(63) Continuation of application No. 10/874,172, filed on Jun. 24, 2004, now Pat. No. 7,477,410, and a continuation of application No. 09/438,300, filed on Nov. 12, 1999, now Pat. No. 6,771,381, and a continuation-in-part of application No. 08/950,838, filed on Oct. 15, 1997, now Pat. No. 6,185,590, and a continuation-in-part of application No. 08/950,911, filed on Oct. 15, 1997, now abandoned, and a continuation-in-part of application No. 08/950,837, filed on Oct. 15, 1997, now abandoned, and a continuation-in-part of application No. 08/950,738, filed on Oct. 15, 1997, now abandoned, and a continuation-in-part of application No. 08/950,741, filed on Oct. 15, 1997, now abandoned, and a continuation-in-part of application No. 08/911,083, filed on Aug. 14, 1997, now abandoned.

(60) Provisional application No. 60/108,798, filed on Nov. 13, 1998, provisional application No. 60/028,129, filed on Oct. 18, 1996, provisional application No. 60/028,522, filed on Oct. 18, 1996, provisional application No. 60/028,128, filed on Oct. 18, 1996, provisional application No. 60/028,697, filed on Oct. 18, 1996, provisional application No. 60/028,639, filed on Oct. 18, 1996, provisional application No. 60/028,685, filed on Oct. 18, 1996.

U.S. Patent

986,426

Filing date:
Dec. 4, 2008

Distributed
Computer
Architecture and
Process for
Document
Management"

(12) **United States Patent**
Klein

(54) **DISTRIBUTED COMPUTER ARCHITECTURE AND PROCESS FOR DOCUMENT MANAGEMENT**

(75) Inventor: **Laurence C. Klein, Silver Spring, MD (US)**

(73) Assignee: **Renaissance Group IP Holdings, Atlanta, GA (US)**

(*) Notice: Subject to any disclaimer, this patent is extended or adjusted pursuant to 35 U.S.C. 154(b) by 235 days.

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(60) Provisional application No. 60/108,798, filed on Nov. 13, 1998, provisional application No. 60/028,129, filed on Oct. 18, 1996, provisional application No. 60/028,522, filed on Oct. 18, 1996, provisional application No. 60/028,128, filed on Oct. 18, 1996, provisional application No. 60/028,697, filed on Oct. 18, 1996, provisional application No. 60/028,639, filed on Oct. 18, 1996, provisional application No. 60/028,685, filed on Oct. 18, 1996.

What is claimed is:

1. A computer data management system including at least one of an electronic image, graphics and document management system capable of transmitting at least one of an electronic image, electronic graphics and electronic document to a plurality of external destinations including one or more of external devices and applications responsively connectable to at least one of locally and via Internet, comprising:
 - at least one scanner, digital copier or other multifunction peripheral capable of rendering at least one of said electronic image, electronic graphics and electronic document;
 - at least one memory storing a plurality of interface protocols for interfacing and communicating;
 - at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software application for interfacing and communicating with the plurality of external destinations including the one or more of the external devices and applications,

wherein the computer data management system includes integration of at least one of said electronic image, electronic graphics and electronic document using software so that said electronic image, electronic graphics and electronic document gets seamlessly replicated and transmitted to at least one of said plurality of external destinations.

To assist you in confirming that you need a license, we provide you an example of an infringing system (of at least certain claims of the patents) below in the form of a brief checklist that you can use to determine if your system is one for which you should contact us about a license. If you can answer "YES" to each question under the scenario below, then you should contact us.

<u>Yes</u>	<u>No</u>	Internetworking of Scanner/MFP and Email
<input type="checkbox"/>	<input type="checkbox"/>	1. Does your company use document scanning equipment that is network addressable (<i>i.e.</i> , it has an IP address and can communicate on your network);
<input type="checkbox"/>	<input type="checkbox"/>	2. Does your company use Microsoft Exchange/Outlook, Lotus Domino/Notes or a comparable system for company email;
<input type="checkbox"/>	<input type="checkbox"/>	3. Are at least some of your employees' email addresses loaded into the scanner, so that you can select to whom you wish to send a scanned document by email; or, alternatively, can you manually input an employee's email address into the scanner to whom you wish a scanned document to be sent; and
<input type="checkbox"/>	<input type="checkbox"/>	4. Can you cause your scanner to transform your paper document to a .pdf file, and have it automatically transmitted to one or more of your employees by email. By automatically, we mean that pressing a "Start" or "Go" button instigates both the copying of the document and the automatic transmission of the document to its intended destination (such as a Microsoft Outlook email inbox)

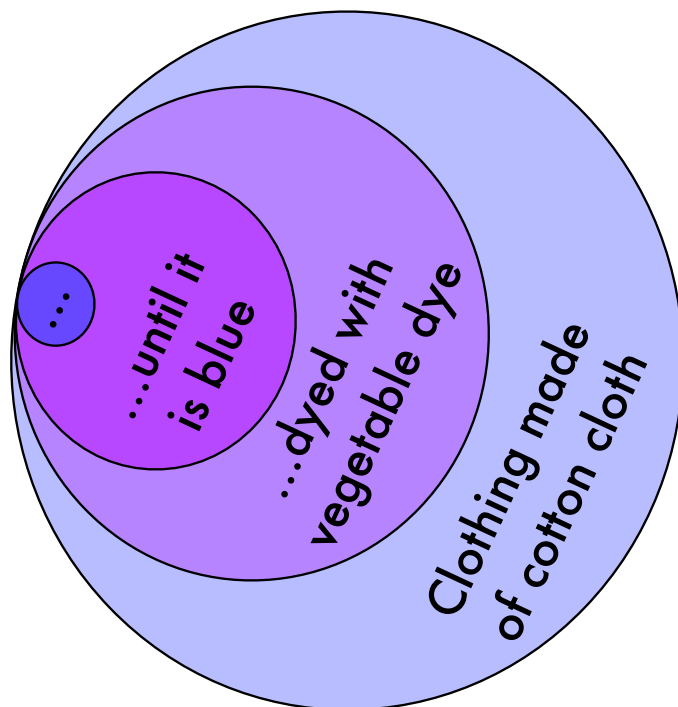
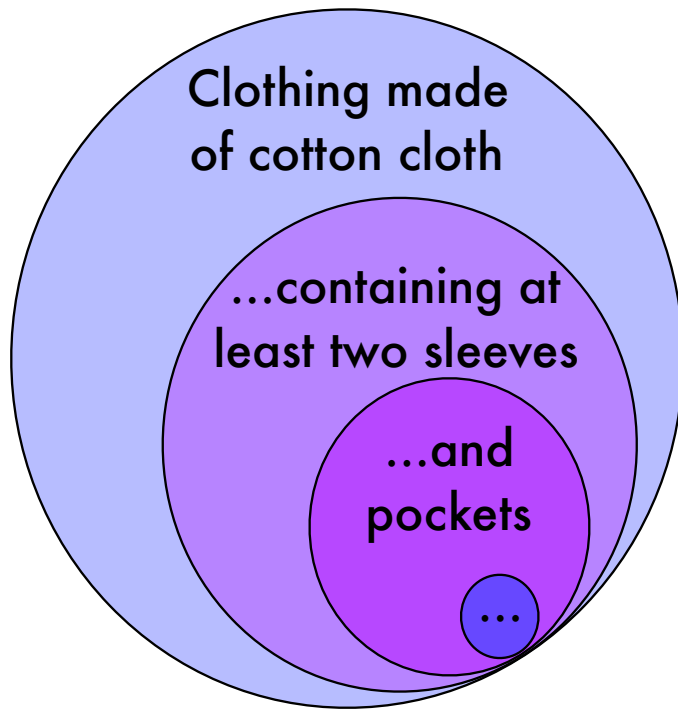
→ What are our goals in drafting claims?

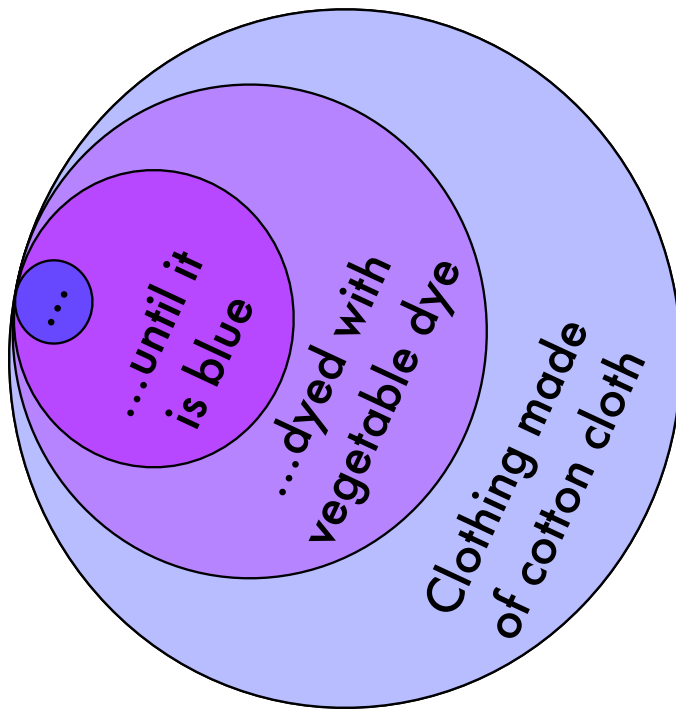
→ What are our goals in drafting claims?

- Broadest possible claims
- But also valid claims
- Claims covering a variety of configurations of the invention

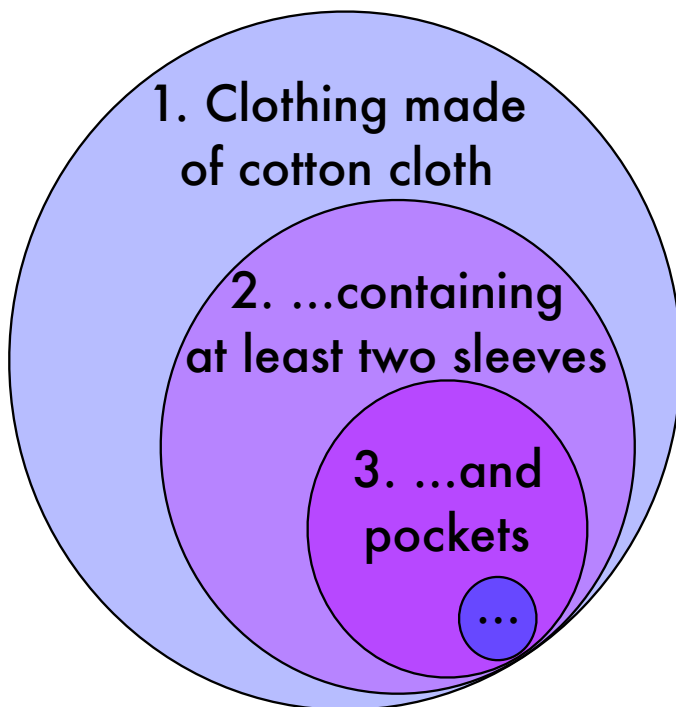
→ Your invention:
a blue cotton
shirt with
two pockets

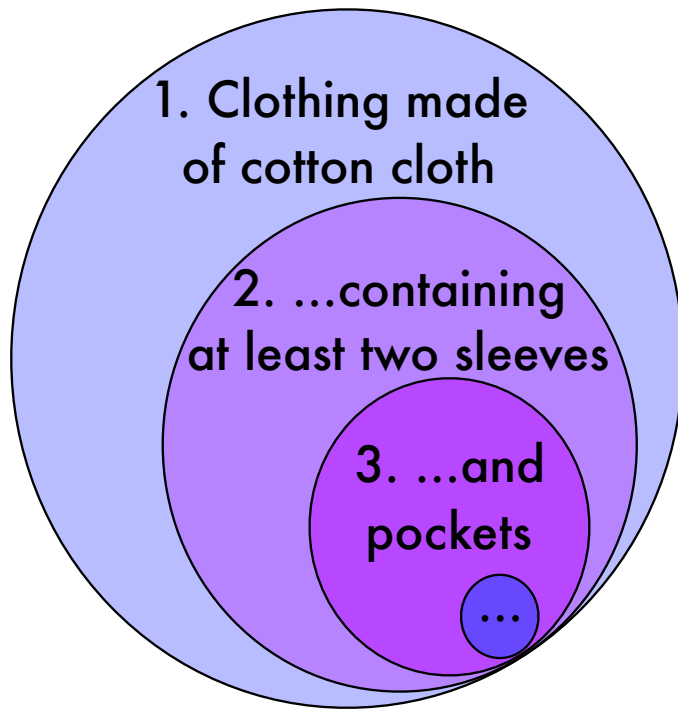




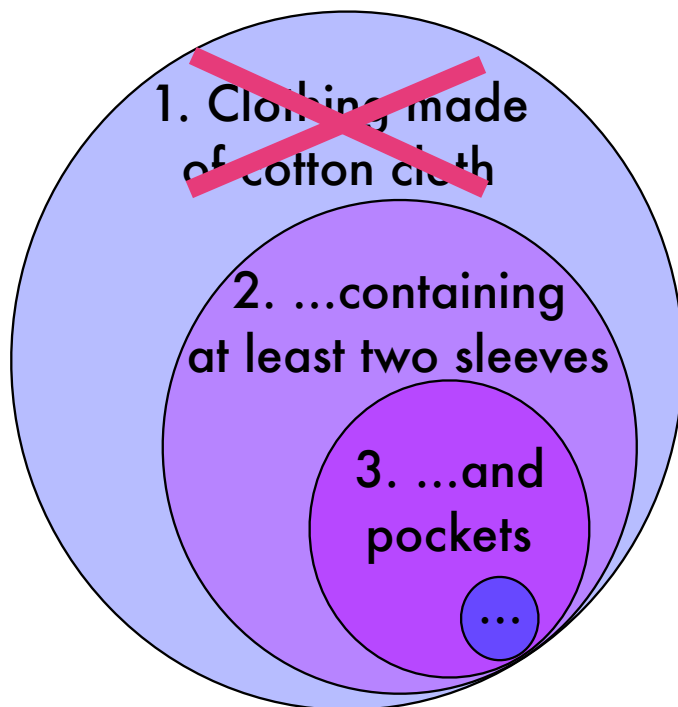


→ The point: You need to spend a lot of time brainstorming the different implications of your invention and the different ways to express it.

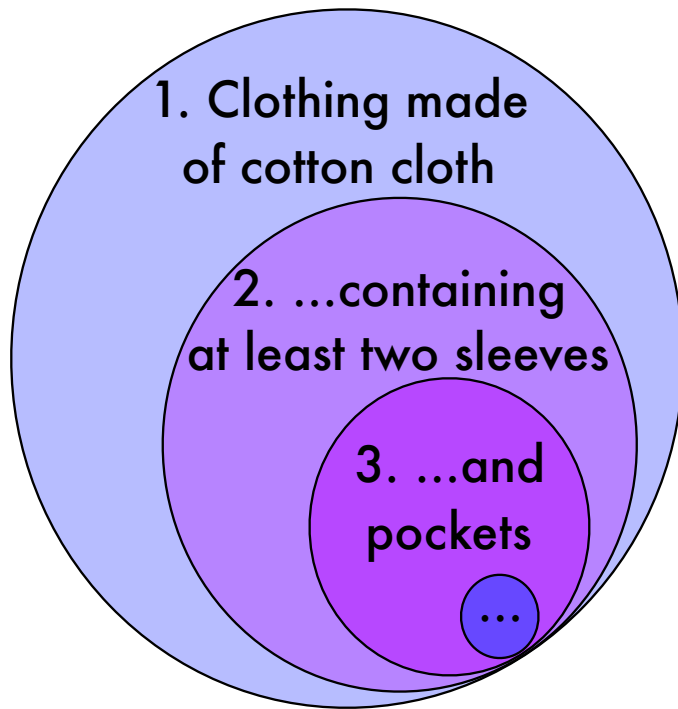




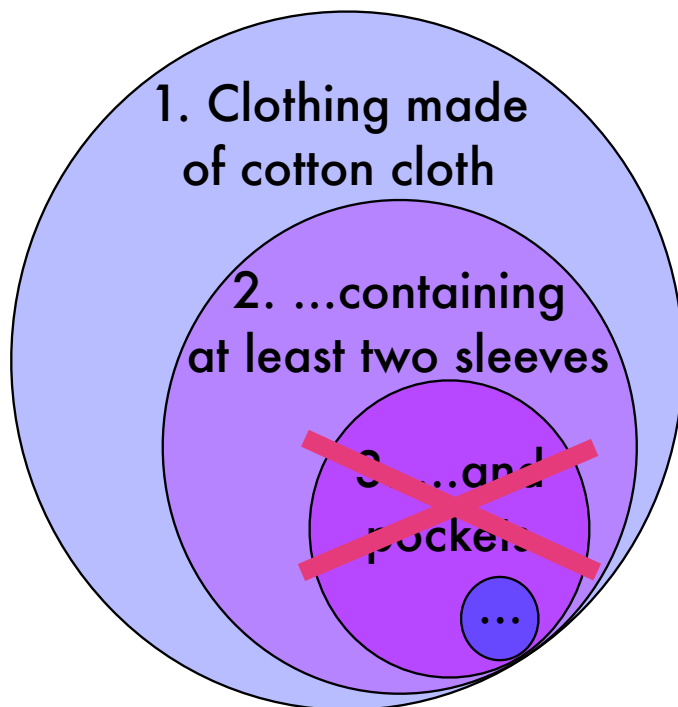
→ Prior art:
pants made of
cotton?



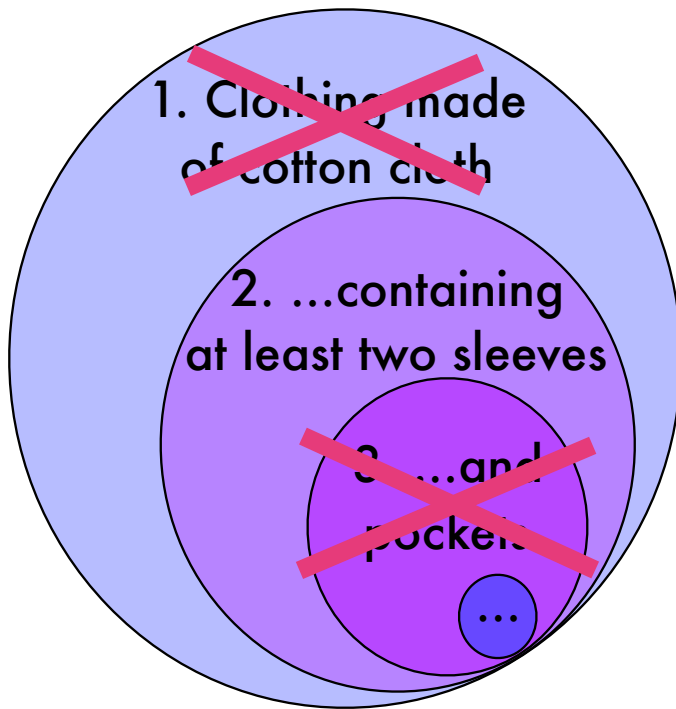
→ Prior art:
pants made of
cotton?



→ Accused product:
cotton shirt with sleeves but no pockets?



→ Accused product:
cotton shirt with sleeves but no pockets?



→ Prior art:
pants made of
cotton?

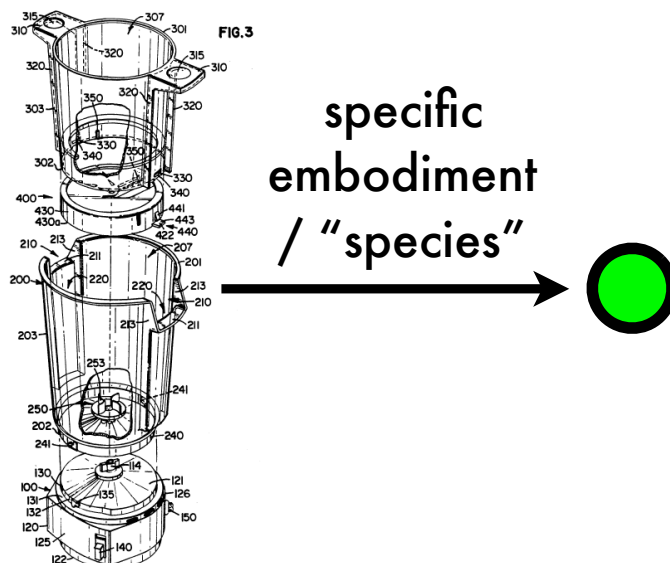
→ Accused
product:
cotton shirt with
sleeves but no
pockets?

→ How do you craft a set of claims?

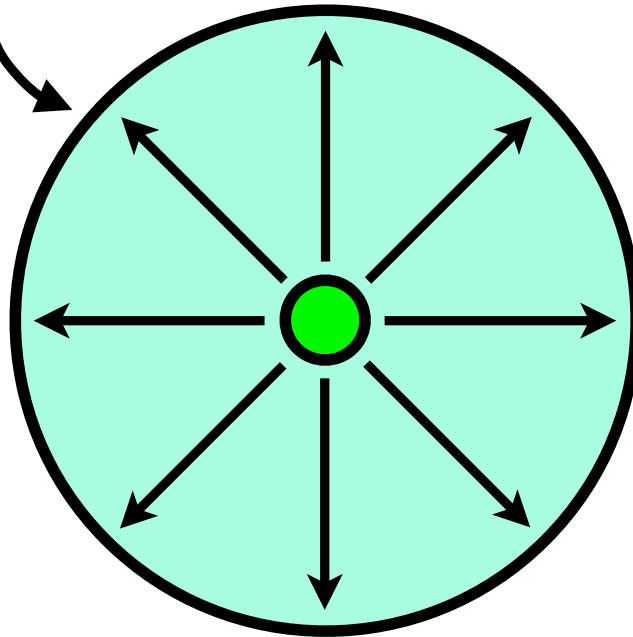
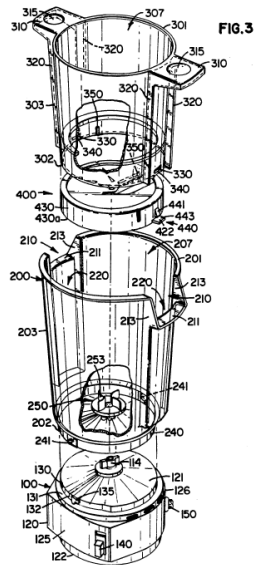
→ How do you craft a set of claims?

→ One way:

- Start with the specific embodiment of the invention
- Expand from there
- What are the general principles or critical features or elements?



conceptual invention / "genus"



→ Claim-drafting exercise!