

Patent Law

Prof. Roger Ford
September 6, 2017

Class 3

Introduction – claim drafting

Recap

Recap

- Patent mechanics and institutions
- Architecture of the patent document

Today's agenda

Today's agenda

- Mechanics and formalities of patent claims
- Claim strategy
- Claim-drafting exercise

Mechanics and formalities of claims

We claim:

1. A method of placing an order for an item comprising:
under control of a client system,
displaying information identifying the item; and
in response to only a single action being performed,
sending a request to order the item along with an
identifier of a purchaser of the item to a server
system;
under control of a single-action ordering component of
the server system,
receiving the request;
retrieving additional information previously stored for
the purchaser identified by the identifier in the
received request; and
generating an order to purchase the requested item for the
purchaser identified by the identifier in the received
request using the retrieved additional information; and
fulfilling the generated order to complete purchase of the
item
whereby the item is ordered without using a shopping cart
ordering model.

We claim:

1. A method of placing an order for an item comprising:
under control of a client system,
displaying information identifying the item; and
in response to only a single action being performed,
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identifier of a purchaser of the item to a server
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Preamble

We claim:

1. A method of placing an order for an item comprising:
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 - displaying information identifying the item; and
 - in response to only a single action being performed,
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 - under control of a single-action ordering component of the server system,
 - receiving the request;
 - retrieving additional information previously stored for the purchaser identified by the identifier in the received request; and
 - generating an order to purchase the requested item for the purchaser identified by the identifier in the received request using the retrieved additional information; and
 - fulfilling the generated order to complete purchase of the itemwhereby the item is ordered without using a shopping cart ordering model.

Preamble
Transition

We claim:

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 - displaying information identifying the item; and
 - in response to only a single action being performed,
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 - fulfilling the generated order to complete purchase of the itemwhereby the item is ordered without using a shopping cart ordering model.

Preamble
Transition
Body

We claim:

1. A method of placing an order for an item comprising:

under control of a client system,
displaying information identifying the item; and
in response to only a single action being performed,
sending a request to order the item along with an
identifier of a purchaser of the item to a server
system:

un 2. The method of claim 1 wherein the displaying of
information includes displaying information indicating the
single action.

3. The method of claim 1 wherein the single action is
clicking a button.

4. The method of claim 1 wherein the single action is
speaking of a sound.

ge 5. The method of claim 1 wherein a user of the client
system does not need to explicitly identify themselves when
placing an order.

fulfilling the generated order to complete purchase of the
item

whereby the item is ordered without using a shopping cart
ordering model.

Preamble

Transition

Body

Dependent
claims

Mechanics and formalities of claims

→ Discussion questions:

- Why have multiple claims?
- When are broad claims helpful?
- When are narrow claims helpful?

Mechanics and formalities of claims

→ Preamble

- Identifies kind of invention
- Usually not read to limit claim scope, but can be, so don't be too clever

Mechanics and formalities of claims

→ Transition

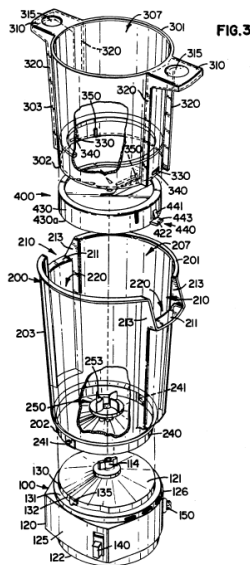
- **“Comprising”**: must include at least the listed elements
- **“Consisting of”**: must contain only the listed elements
- **“Consisting essentially of”**: must contain only the listed elements and others that do not substantially change the invention

Mechanics and formalities of claims

→ Body

- List of elements
- Explanation of how the elements relate
- Single sentence
- Clear and unambiguous internal references

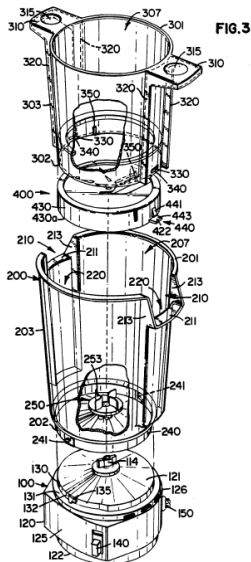
US patent 5,089,286



I claim:

1. A vegetable cutter, comprising:
 - a frame having an open end and defining a retention compartment,
 - a container defining a retention chamber which is configured for reception within the retention compartment,
 - a means for rotating a vegetable retained within the retention compartment,
 - a blade assembly operably coupled to the container for slicing a vegetable retained within the retention compartment as the vegetable is rotated by the rotating means,wherein the sliced vegetable passes into the retention chamber defined by the container.

US patent 5,089,286



I claim:

1. A vegetable cutter, comprising:

a frame having an open end and defining a retention compartment,

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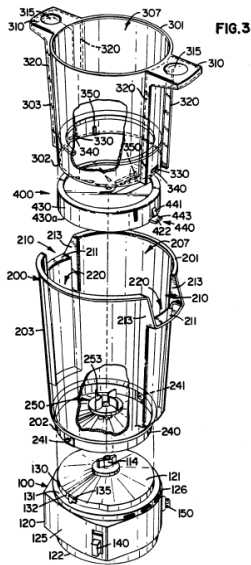
wherein the sliced vegetable passes into the retention chamber defined by the container.

Mechanics and formalities of claims

→ All-Elements Rule:

- To infringe, the defendant's product or process must include **every element of a single patent claim**, either literally or through the doctrine of equivalents

US patent 5,089,286



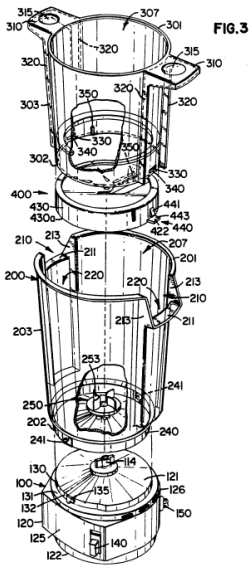
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Mechanics and formalities of claims

- Relationship of claim elements:
- Must be clear in the claim.

US patent 5,089,286



I claim:

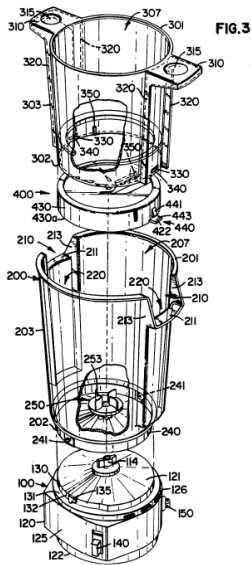
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Mechanics and formalities of claims

→ Means-plus-function claims —
35 U.S.C. § 112(f):

“An element in a claim for a combination may be expressed as a **means or step for performing a specified function without the recital of structure, material, or acts in support thereof**, and such claim shall be construed to cover the **corresponding structure, material, or acts described in the specification** and **equivalents** thereof.”

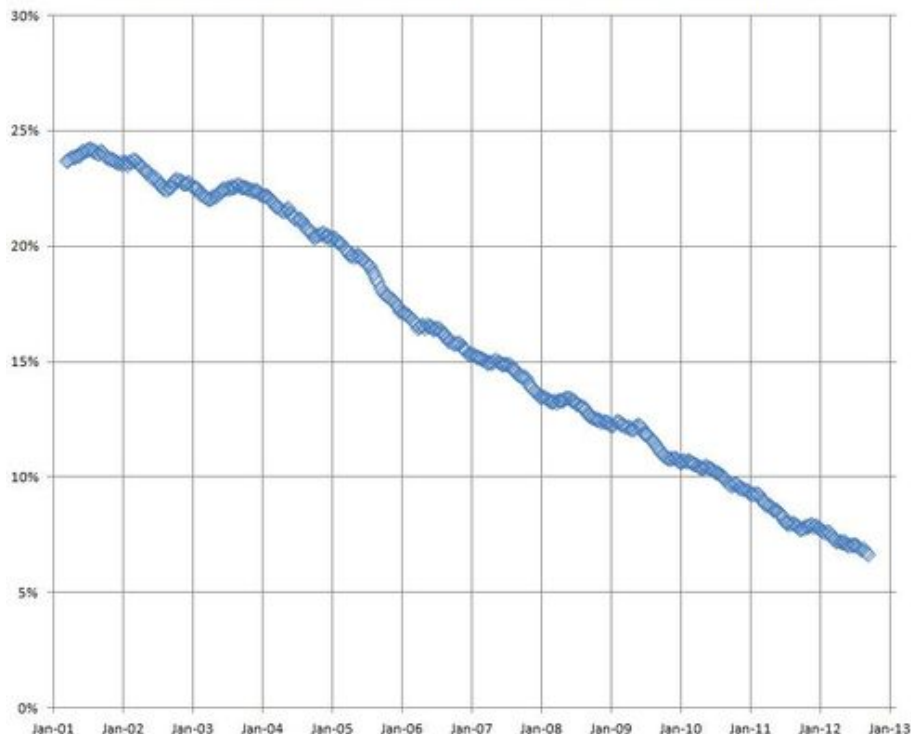
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Means Plus Function Claiming:
Percent of Patent Applications with "Means For" in Claimset



Mechanics and formalities of claims

→ *Jepson* claims – 35 C.F.R. § 1.75(e):

Where the nature of the case admits, as in the case of an **improvement**, any independent claim should contain in the following order:

- (1) A preamble comprising a **general description of all the elements or steps** of the claimed combination which are **conventional or known**,
- (2) A phrase such as “wherein the **improvement comprises**,” and
- (3) Those elements, steps, and/or relationships which constitute that portion of the claimed combination which the applicant considers as the **new or improved portion**.

US patent 4,892,244

6. In a staple cartridge insertable within a surgical stapler and containing staples and comprising an elongated body including one or more longitudinal slots for slidably receiving one or more longitudinal pusher bars comprising a firing mechanism of said surgical stapler, and a plurality of drivers engageable by said pusher bars for ejecting the staples from the cartridge, said staple cartridge releasably fastened to a said surgical stapler, **the improvement comprising** a lockout mechanism connected to said longitudinal slots for preventing said pusher bars from passing more than one time through said longitudinal slots.

“No patent attorney in their right mind would follow this suggestion. There is no absolute mandate that patent claims to an improvement describe what is known or convention in the preamble. Likewise, there is no absolute mandate that the transition phrase used mentions that the body of the claim relates to an improvement.”

–Gene Quinn

Mechanics and formalities of claims

→ Negative limitations

- “A windmill according to claim 1, wherein the wind-catching device is a set of blades made of any rigid material except wood.”

Claim strategy

Claim strategy

→ Discussion question:

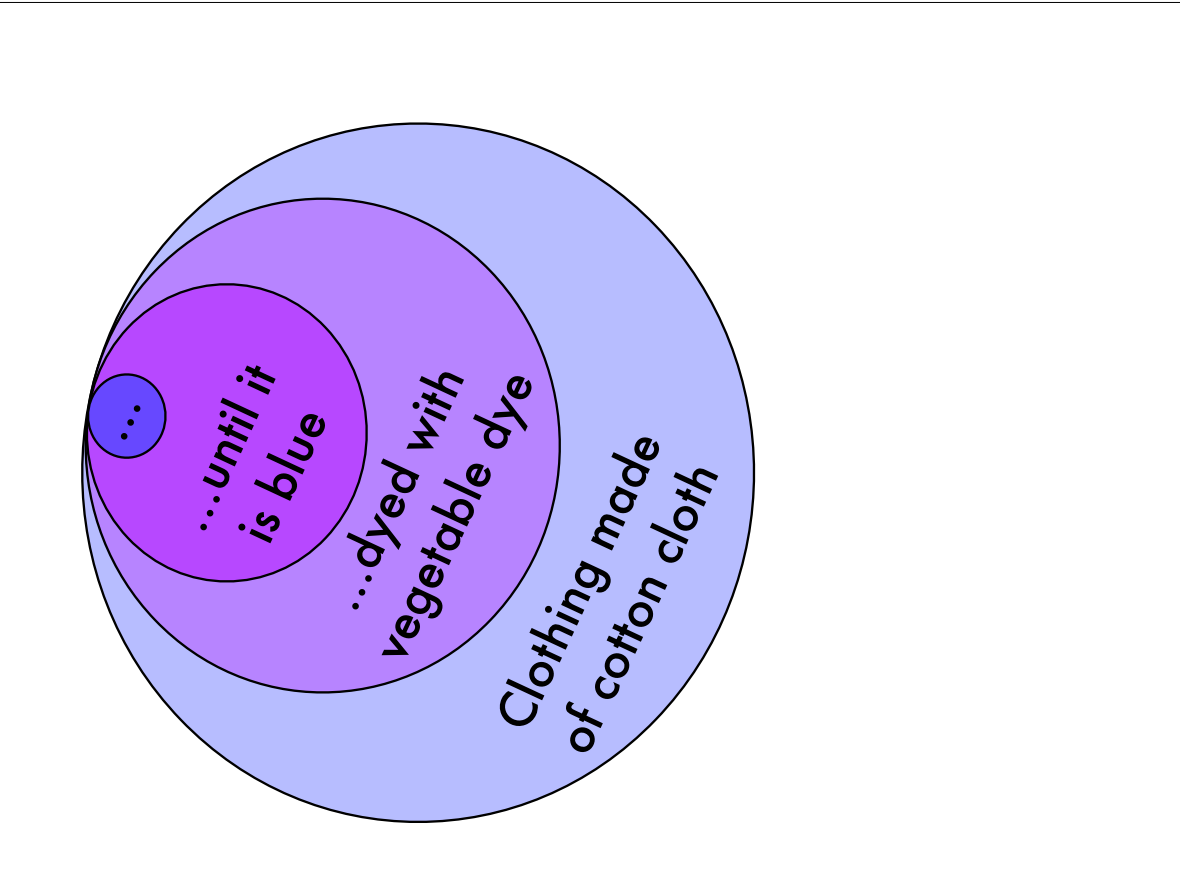
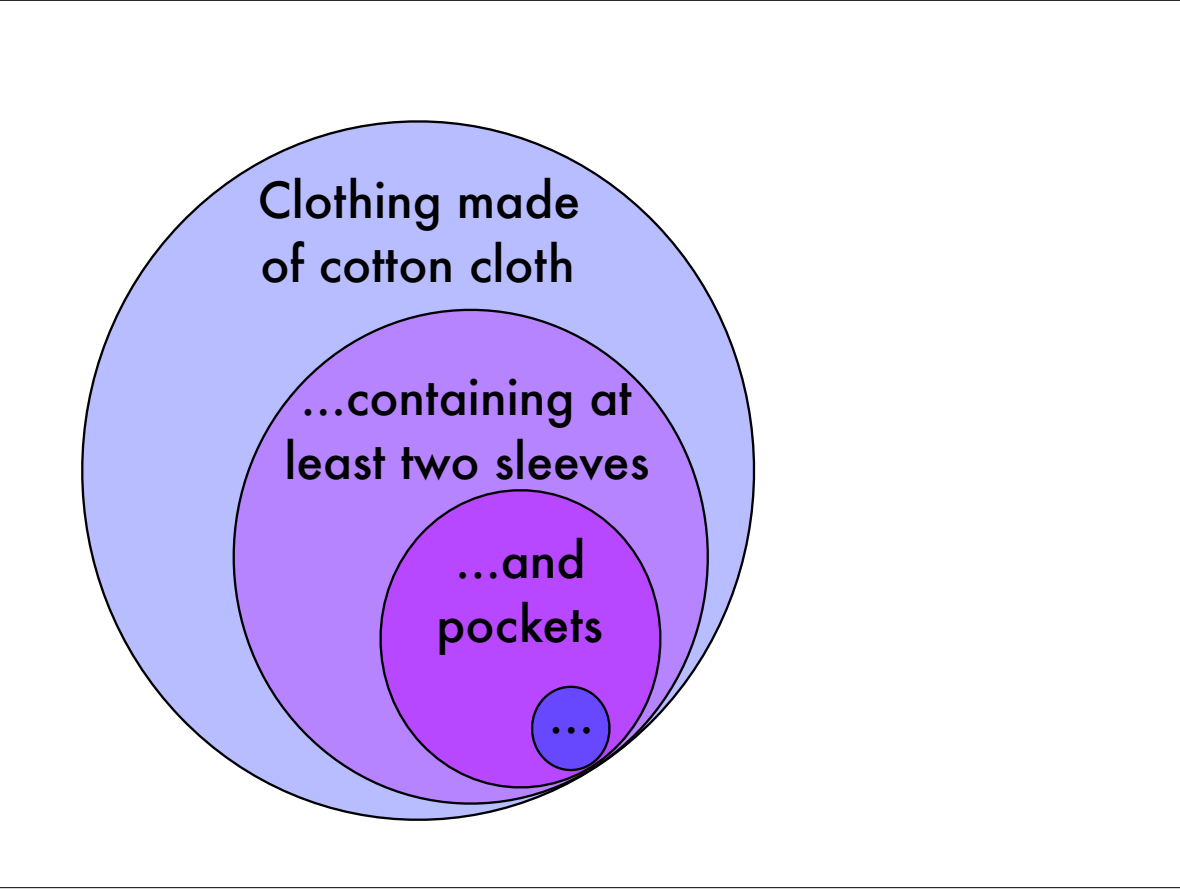
- What are your goals in drafting claims?

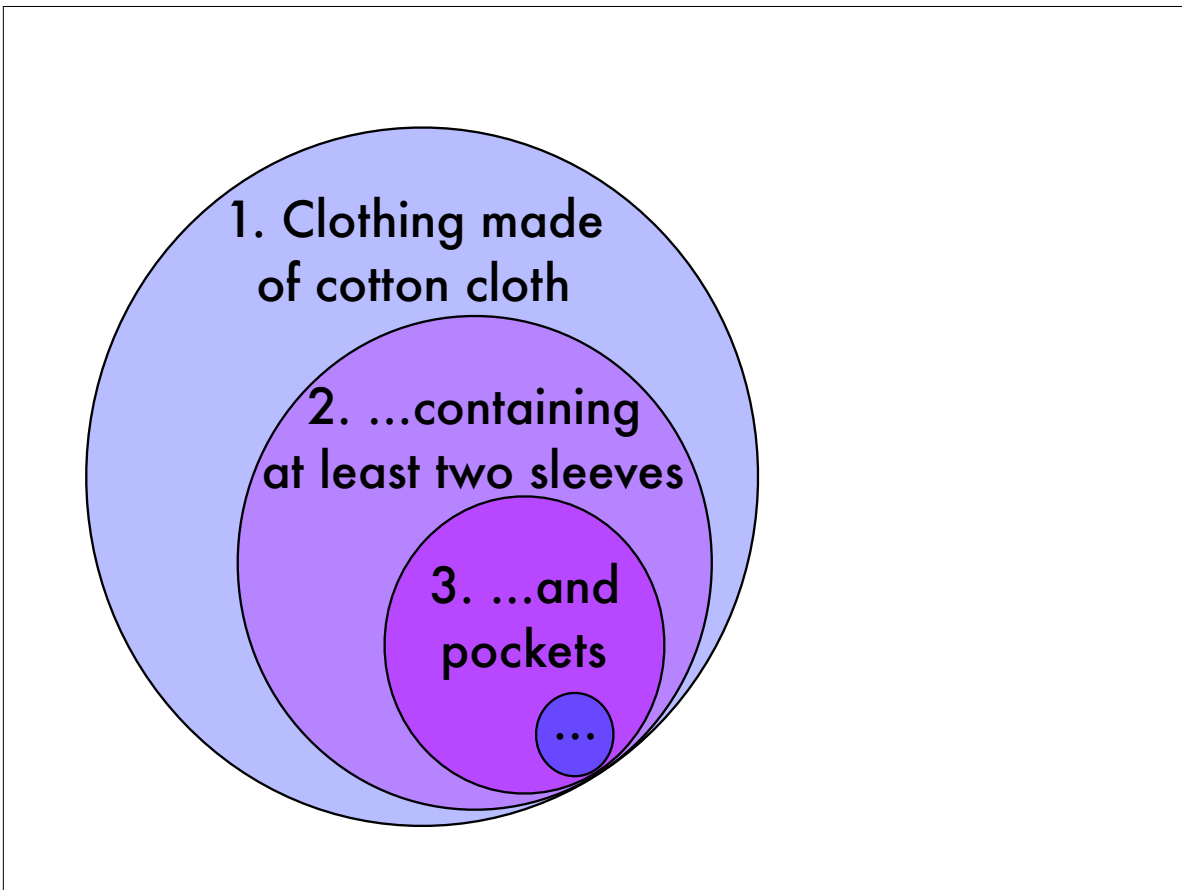
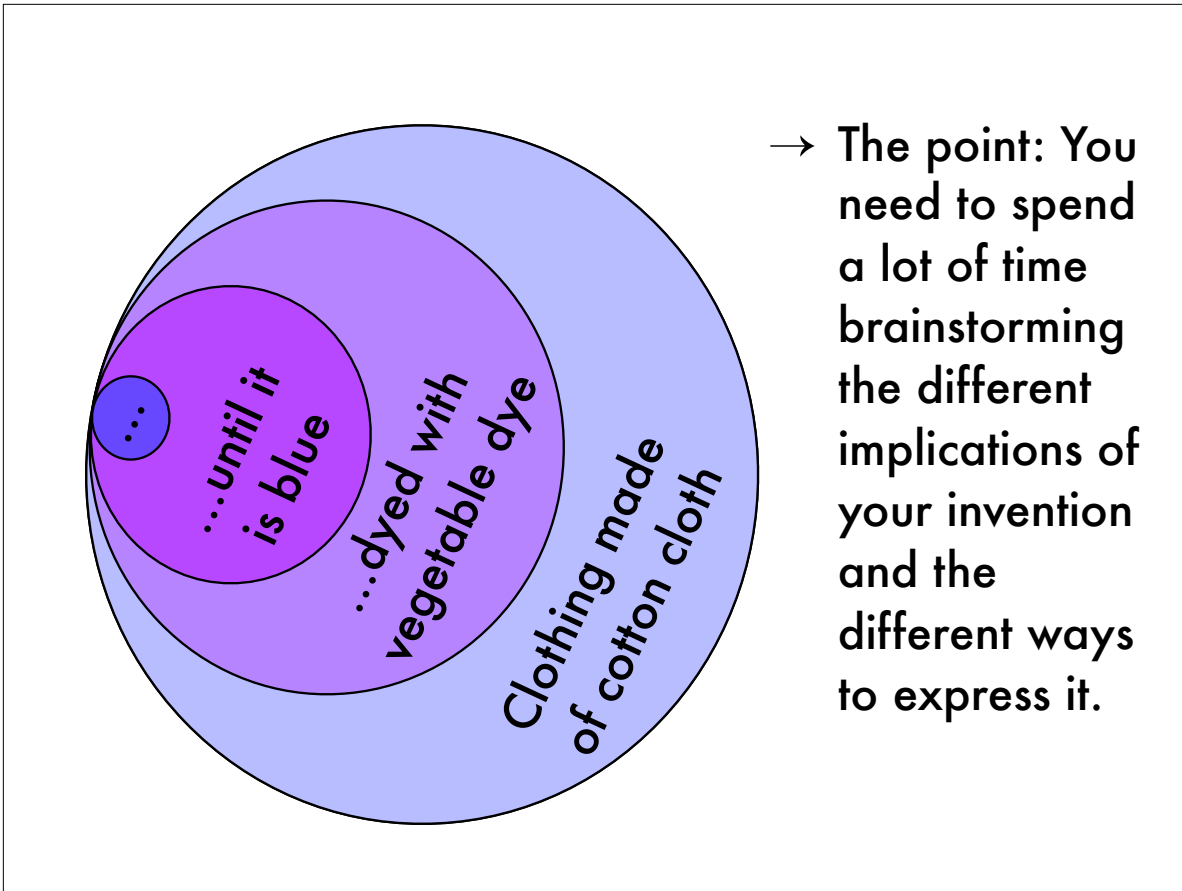
Claim strategy

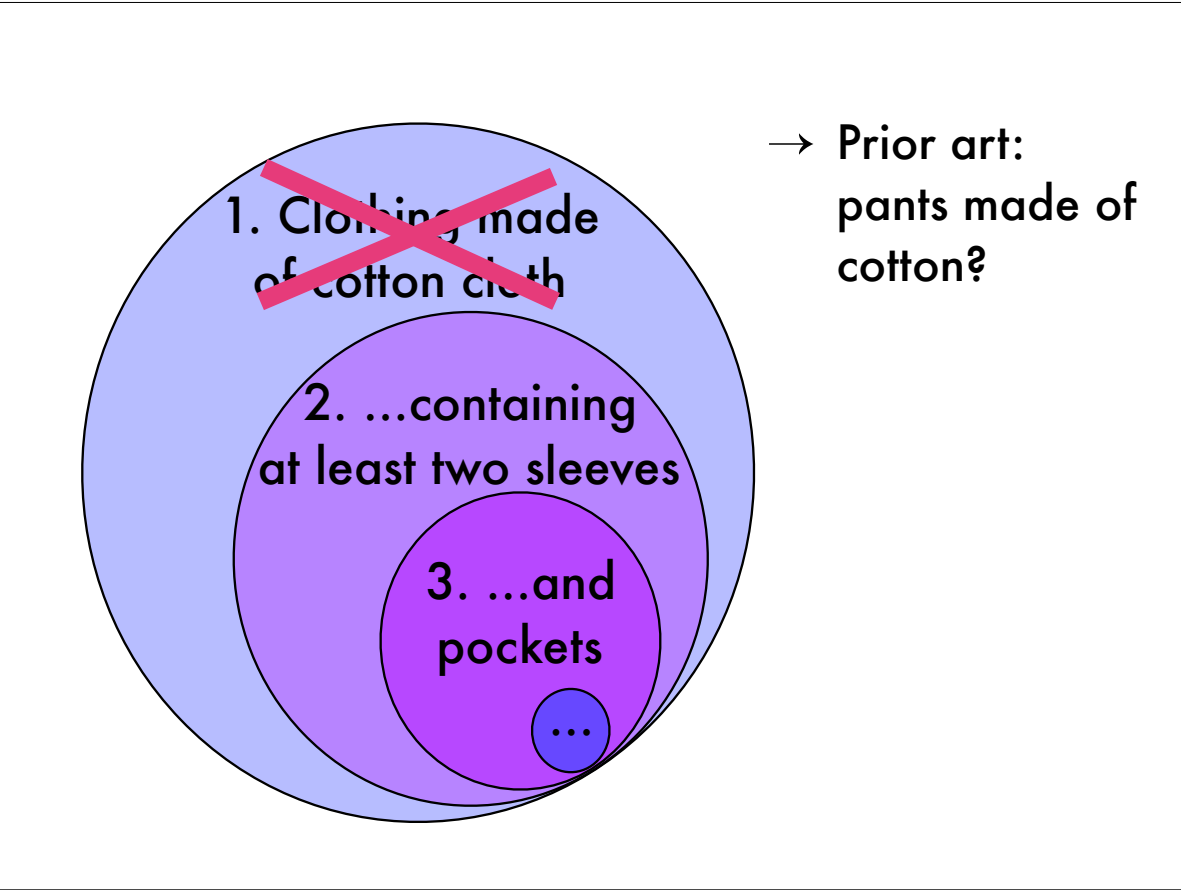
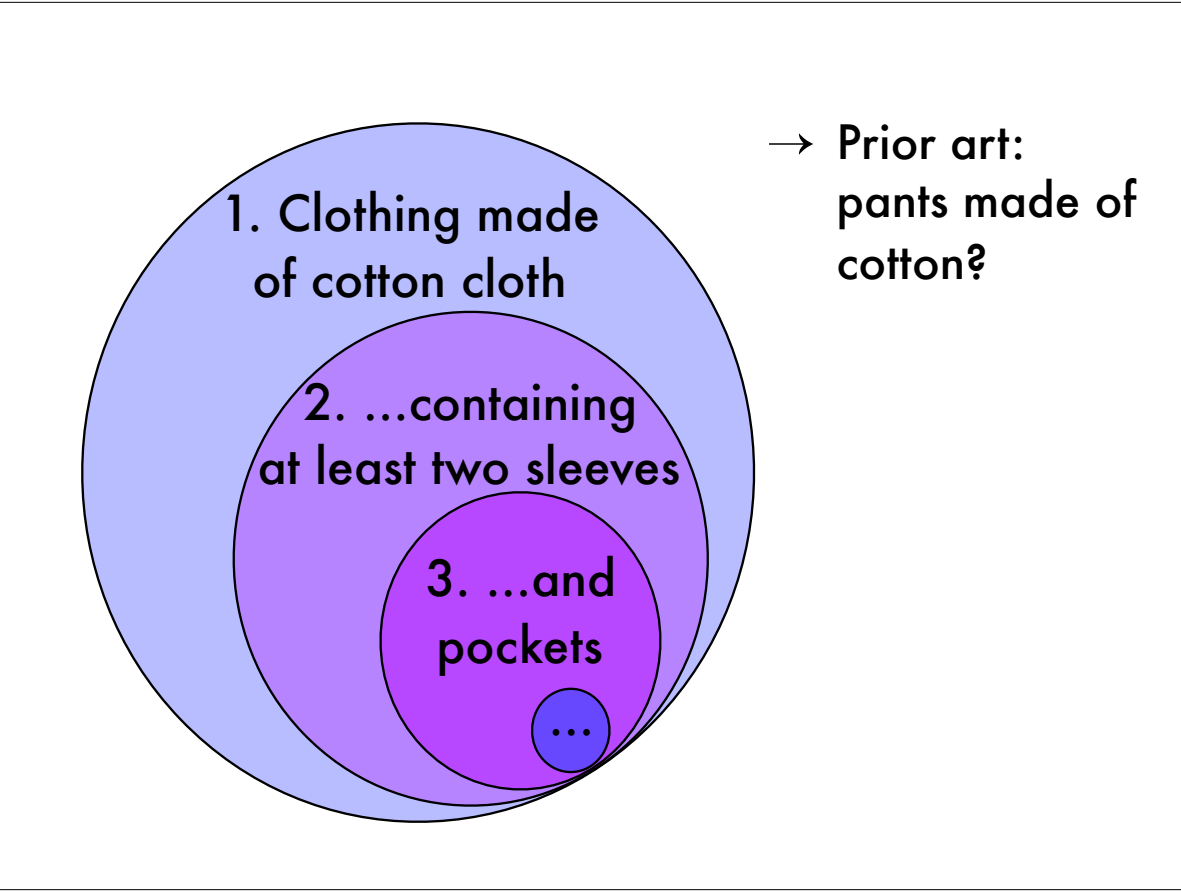
- Claim-drafting goals:
- Broadest possible claims
 - But also valid claims
 - Claims covering a variety of configurations of the invention

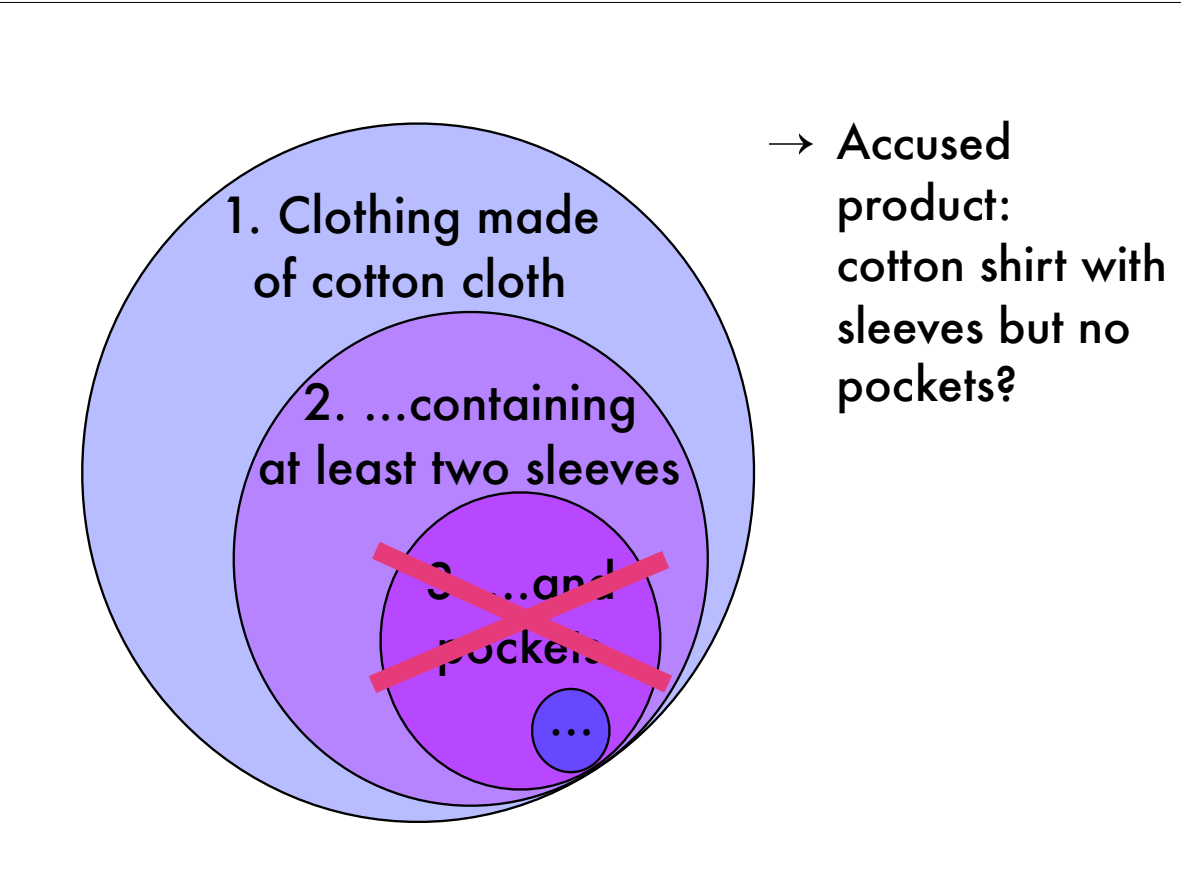
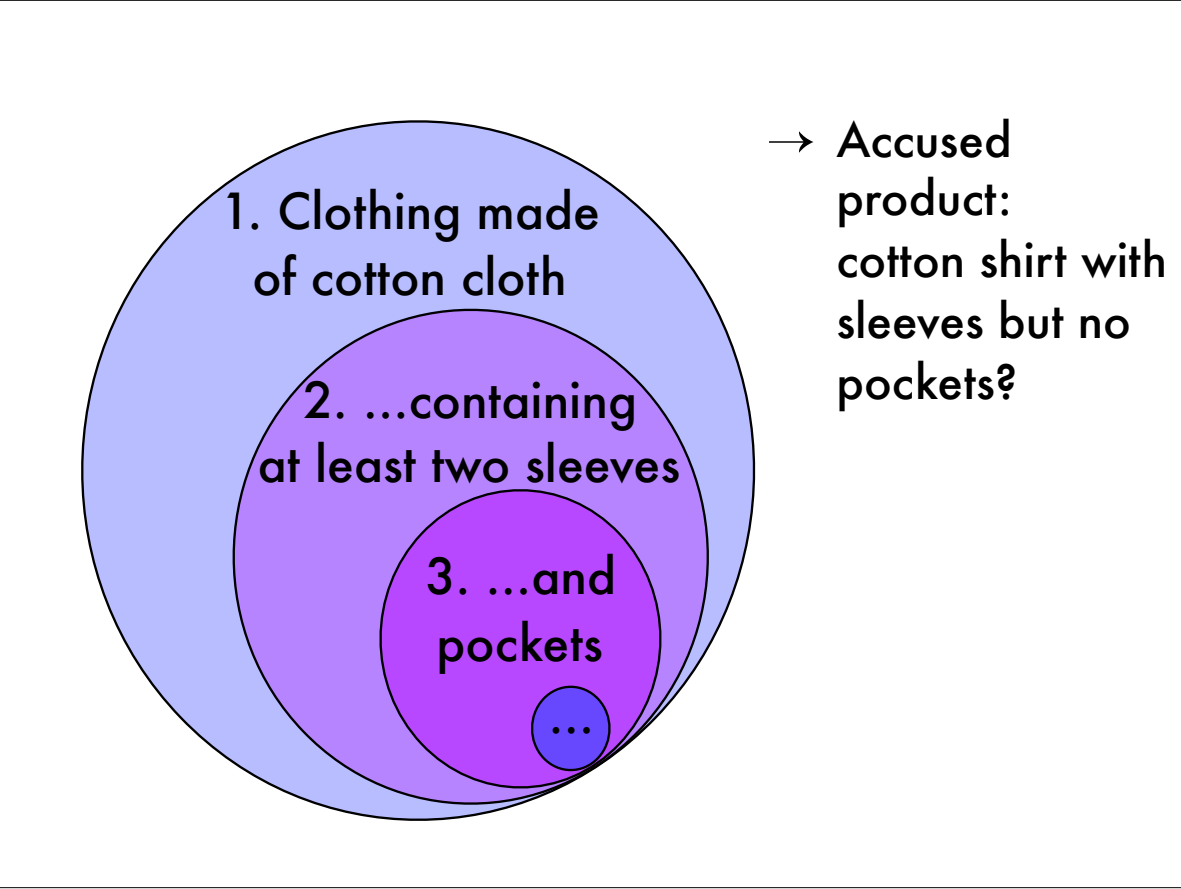
- Your client's invention:
a blue cotton shirt with two pockets

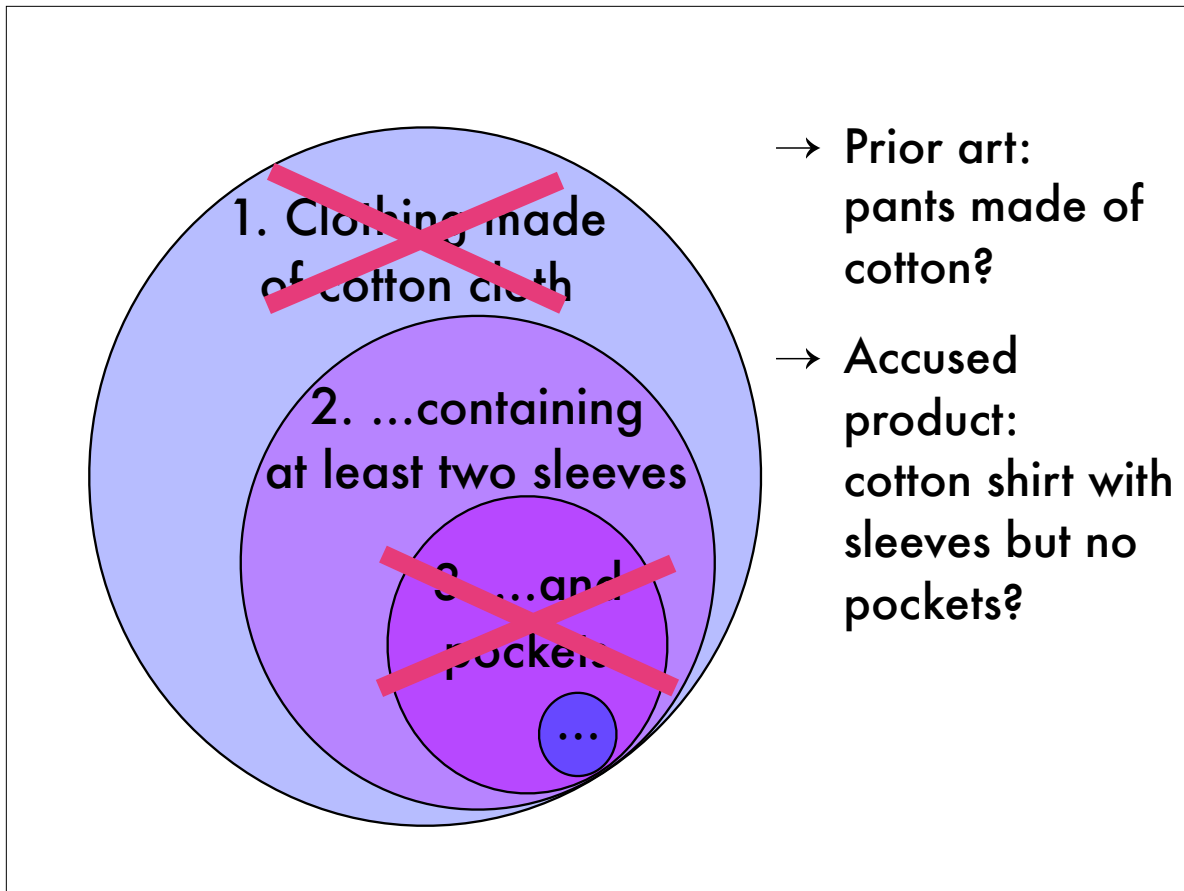






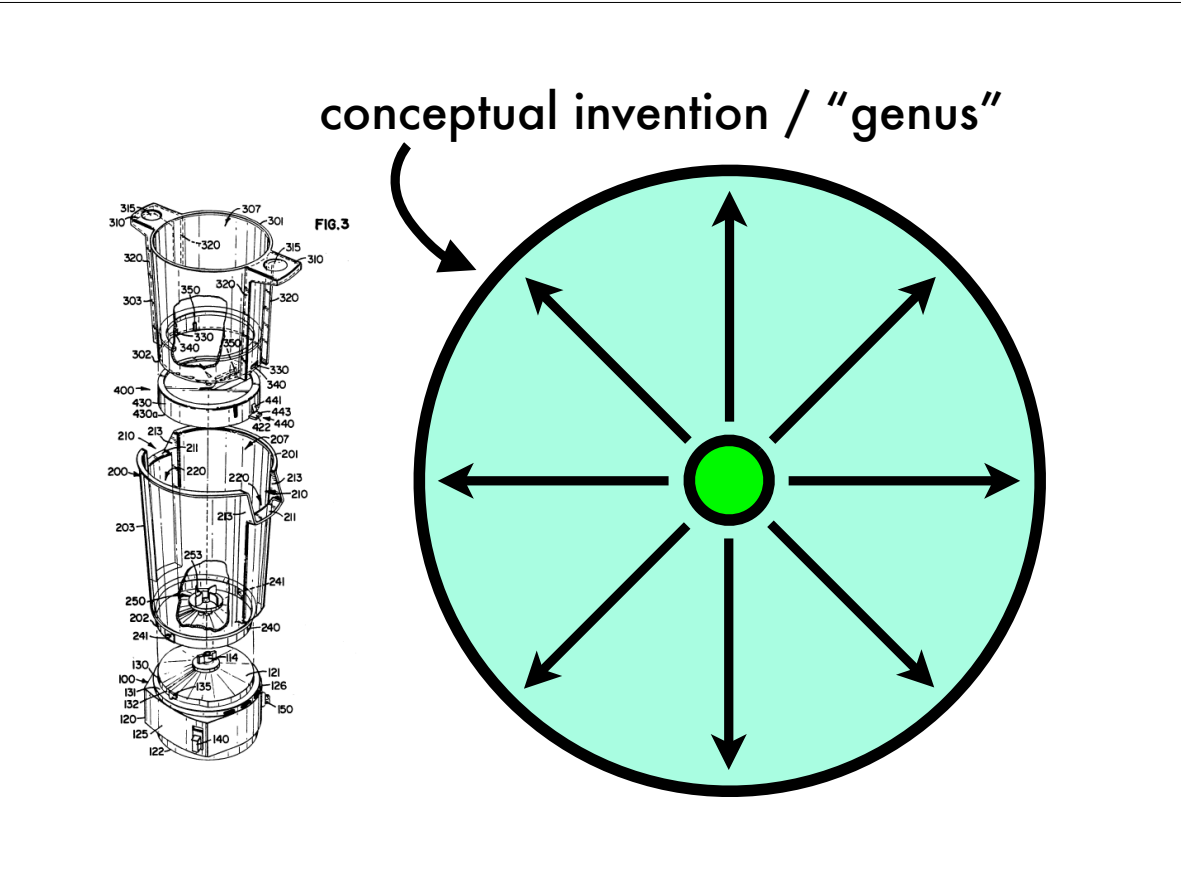
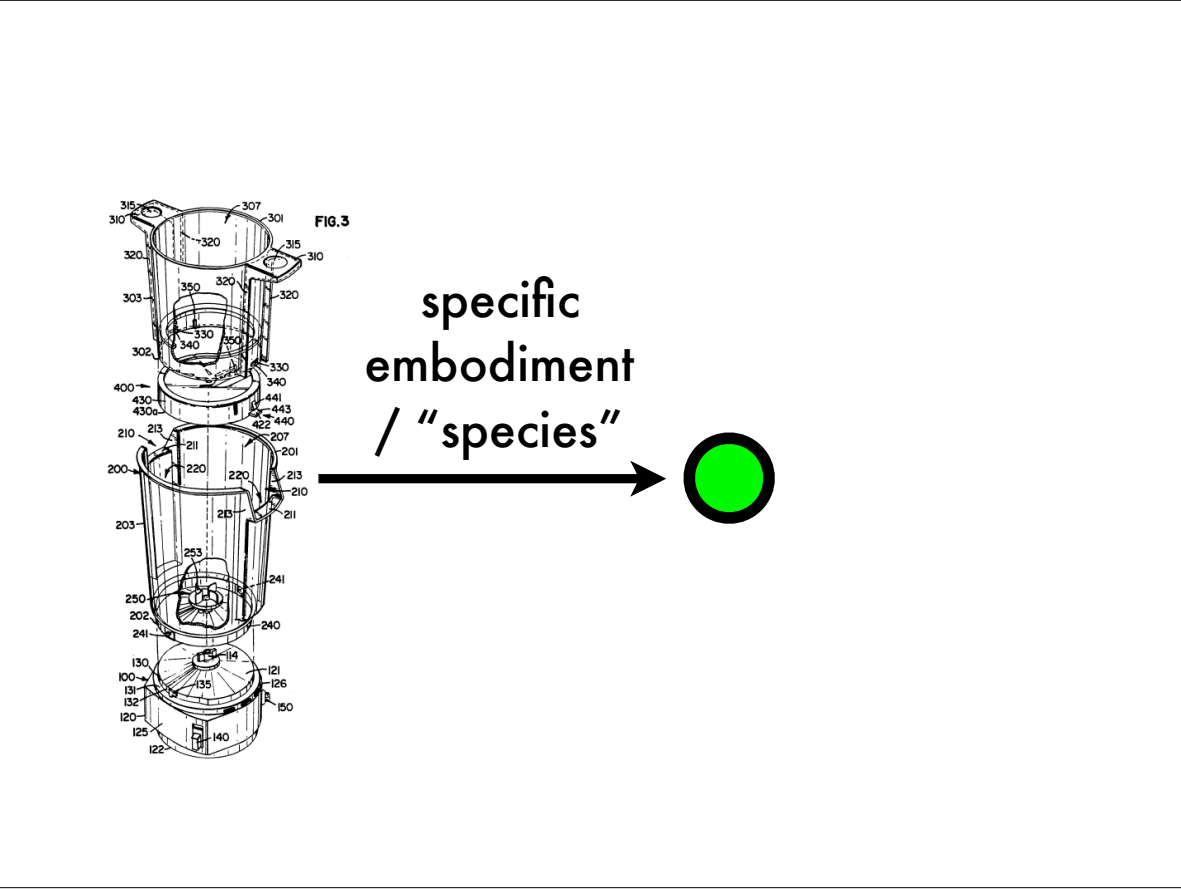






Claim strategy

- How do you craft a set of claims?
- One way:
 - Start with specific embodiment of the invention
 - Expand more broadly



Claim-drafting exercise

Claim-drafting exercise

- Please read the instructions
 - Claims in the body of the email
 - Subject line
 - Deadline
 - This stuff isn't hard

Claim-drafting exercise

→ Key features of the invention?

- Doesn't tear paper
- Produces dry mark
- Doesn't blot
- Can be erased
- Uses graphite/lead mixture as writing material and wood to hold writing material
- Softer woods hold better

Claim-drafting exercise

→ Key features of the invention?

- ~~Doesn't tear paper~~
- ~~Produces dry mark~~
- ~~Doesn't blot~~
- ~~Can be erased~~ (?)
- Uses graphite/lead mixture as writing material and wood to hold writing material
- Softer woods hold better (?)

1. A writing instrument comprising:
 - a thin top; and
 - a body,wherein said thin top is made of lead or graphite, preferably said thin top is made of graphite.
2. A writing instrument as recited in claim 1, wherein said graphite comes from Cumberland, England.
3. A writing instrument as recited in claim 2, wherein said graphite is soft.
4. A writing instrument as recited in claim 1, wherein said thin top is made of mixtures.
5. A writing instrument as recited in claim 1 to 4, wherein said body is made of wood, preferably said body is made of soft wood.

1. A stylus comprising:
 - a wooden outer core;
 - an inner core that can produce a mark; and
 - a means for rubbing the mark out.
2. The stylus of claim 1, wherein the inner core comprises:
 - a graphite mixture;
 - a lead mixture; or
 - a graphite and lead mixture.
3. The stylus of claim 1, wherein the inner core does not easily tear or blot paper.
4. The stylus of claim 1, wherein the inner core can produce a mark that can be rubbed out.

1. A pencil comprising:
 - a wooden body; and
 - marking material embedded in the wooden body for producing a dark mark.
2. The pencil of claim 1, wherein the marking material is graphite, lead or mixtures thereof.
3. The pencil of claim 2, wherein the graphite is soft.
4. The pencil of any of claims 1 to 3, wherein the wooden body is made of soft wood.

1. A hand-held writing instrument comprising:
 - an elongated cylindrical core-element which leaves a mark on paper; and
 - an elongated cylindrical wood casing to hold said core-element.
2. The core-element of claim 1, further comprising:
 - a lead or graphite mixture or compound,
 - whereby the mixture or compound produces a dark mark which does not blot or tear paper, and can be rubbed out.

Claim-drafting exercise

→ Things to think about:

- Are your claims narrow enough to exclude the prior art?
- Are your claims broad enough to cover different configurations of the invention?
- Are your claims flexible enough to cover future technological development?



Next time

Next time

→ **Disclosure: enablement**