

# Patent Law

Prof. Roger Ford

August 31, 2016

Class 2: A (Very Brief)

Introduction to Claim Drafting

## Schedule notes

# Schedule notes

- Monday, Sept. 5 — no class (holiday)
- Monday, Sept. 12 — no class (travel)
- Thursday, Sept. 15 — likely makeup class over lunch
- Wednesday, Sept. 21 — no class (travel)

A blue rectangular button with a white border and a subtle drop shadow, containing the word "Recap" in white text.

Recap

# Recap

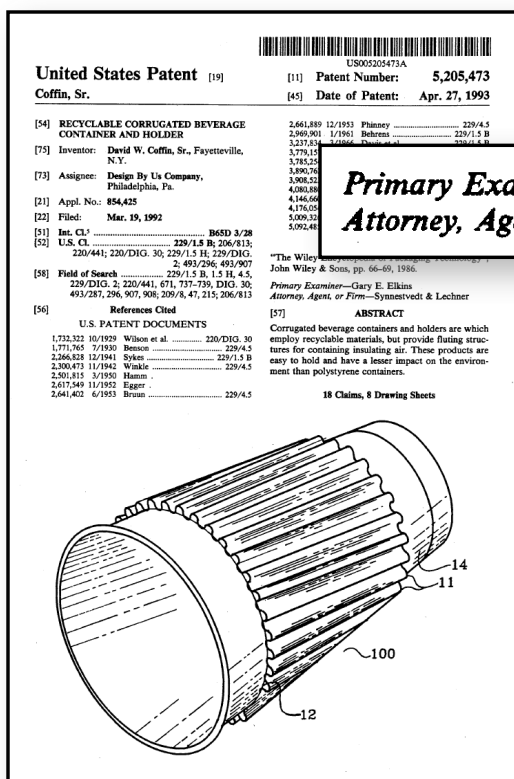
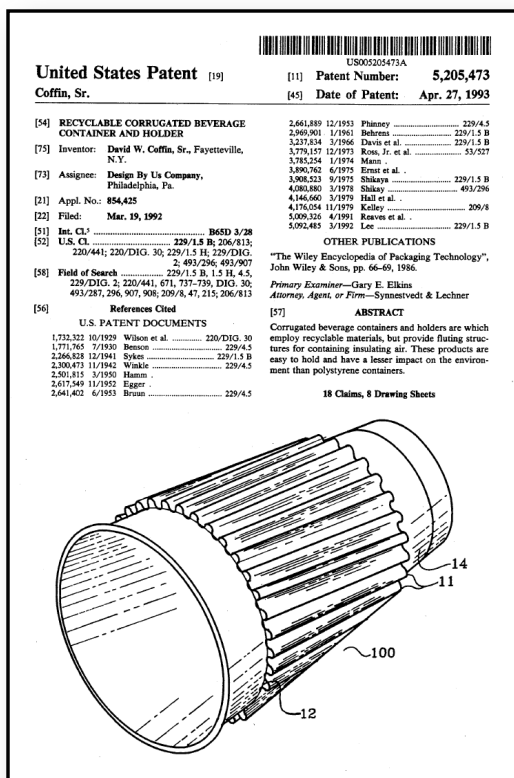
- What patents are, and the purpose of the patent system
- Mechanics and institutions of the patent system
- Architecture of the patent document

Today's agenda

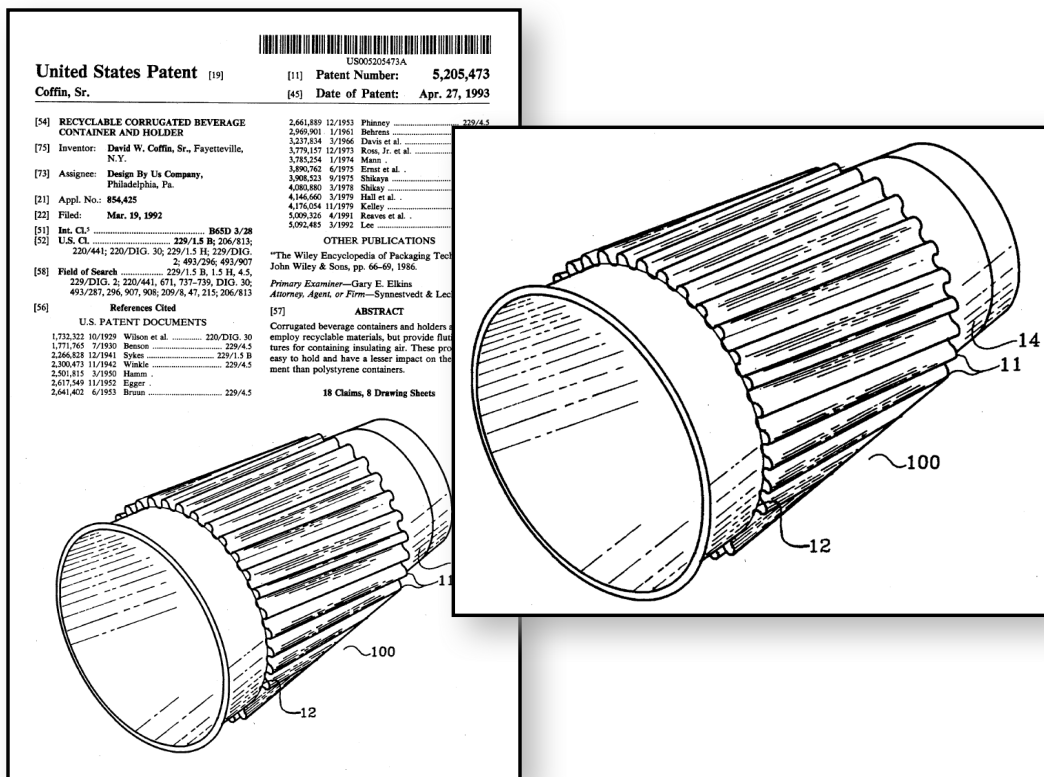
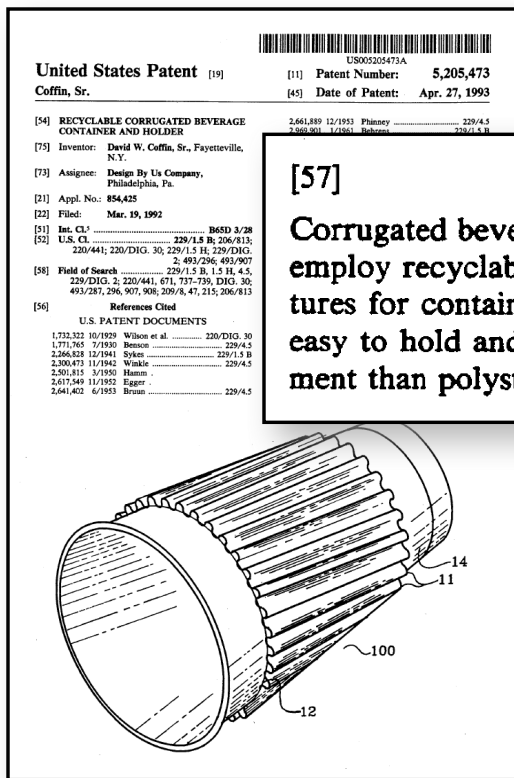
# Today's agenda

- Recap
- Architecture of the patent document (continued)
- Mechanics and formalities of patent claims
- Claim strategy
- Claim-drafting exercise

**Architecture of the  
patent document**



Primary Examiner—Gary E. Elkins  
Attorney, Agent, or Firm—Synnestvedt & Lechner



**United States Patent** [19]  
**Coffin, Sr.**

[54] **RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER**

[75] **Inventor:** David W. Coffin, Sr., Fayetteville, N.Y.

[73] **Assignee:** Design By Us Company, Philadelphia, Pa.

[21] **Appl. No.:** 854,425

[22] **Filed:** Mar. 19, 1992

[51] **Int. Cl.:** B65D 3/28

[52] **U.S. Cl.:** 229/1.5 B; 206/813; 220/441; 220/DIG. 30; 229/1.5 H; 229/DIG. 2; 493/296; 493/907

[58] **Field of Search:** 229/1.5 B, 1.5 H, 4.5, 229/DIG. 2; 220/441, 671, 737-739, DIG. 30; 493/287, 296, 907, 908; 209/8, 47, 215, 206/813

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

1,732,322	10/1929	Wilson et al.	220/DIG. 30
1,771,765	7/1930	Benson	229/4.5
2,366,528	12/1941	Sykes	229/1.5 B
2,300,473	11/1942	Winkle	229/4.5
2,501,815	3/1950	Hamm	229/4.5
2,617,549	11/1952	Egger	
2,641,402	6/1953	Bruun	229/4.5

US005205473A

[11] **Patent Number:** 5,205,473

[45] **Date of Patent:** Apr. 27, 1993

## 1

# RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER

## FIELD OF THE INVENTION

This invention relates to insulating containers, and especially those which are recyclable and made of cellulosic materials.

5,205,473

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**United States Patent** [19]  
**Coffin, Sr.**

[54] **RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER**

[75] **Inventor:** David W. Coffin, Sr., Fayetteville, N.Y.

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## 10

# BACKGROUND OF THE INVENTION

Hot beverage containers have traditionally been constructed of two materials: wax-coated paper and polystyrene. Although both products have received wide spread implementation by fast food restaurants and consumers, they each have their own specialized drawbacks which have yet to be overcome.

Polystyrene is an excellent insulator, and because of its unique moldability, can be formed into a myriad of different shapes and sizes. Unfortunately, however, polystyrene is neither easily recyclable nor biodegradable, and must be disposed in a sanitary landfill.

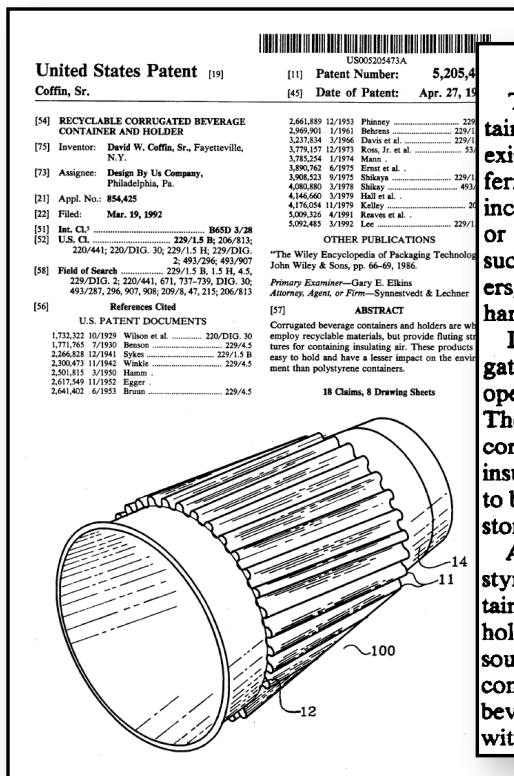
Accordingly, there is a need for a food and beverage container which provides adequate insulation for comfortable handling, but which is generally friendly to the environment. Such a container must be inexpensive, so as to be a cost effective substitute for either paper or polystyrene alternatives.

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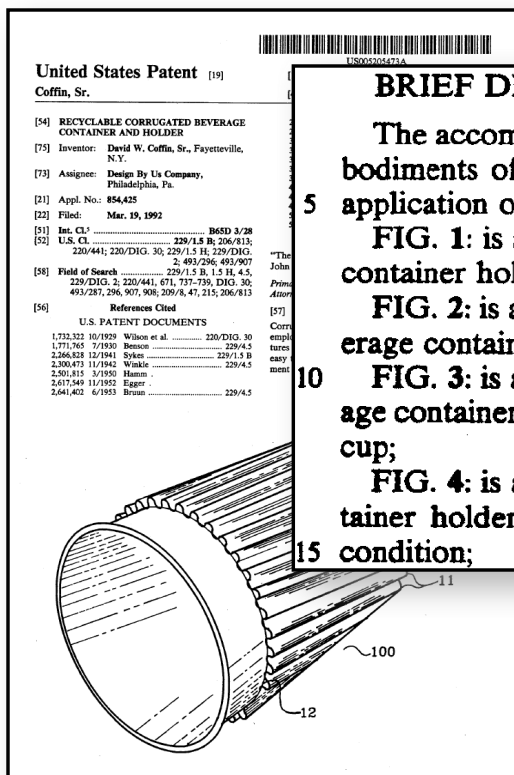


## SUMMARY OF THE INVENTION

This invention provides recyclable, corrugated containers and container holders which can be made from existing cellulosic materials, such as paper. The preferred recyclable, corrugated hot beverage container includes a lip and an internal cavity for containing a hot or cold medium. The container includes fluting means, such as fluting adhesively attached to one or more liners, for thermally spacing the hands of the user from the harsh temperatures of the contents of the container.

In the preferred holders of this invention, a corrugated tubular member is provided having at least a first opening for receiving and retaining a cup, or the like. The tubular member's corrugation, like that for the container above, includes fluting means for providing insulating air pockets. The holder can also be fashioned to be collapsible about two or more pivot points for flat storage.

Accordingly, the deficiencies of both paper and polystyrene are overcome at a minimum expense. The containers of this invention can be used for comfortably holding a variety of beverages, such as hot chocolate, soup, or coffee. The provided holders can be used in conjunction with paper cups, aluminum cans, or other beverage containers, without the discomfort associated with condensation and extreme temperatures.



## BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings illustrate preferred embodiments of the invention according to the practical application of the principles thereof, and in which:

FIG. 1: is a top planar view of a preferred beverage container holder of this invention;

FIG. 2: is a bottom planar view of the preferred beverage container holder of FIG. 1;

FIG. 3: is a perspective view of the preferred beverage container holder of FIG. 1 disposed around a paper cup;

FIG. 4: is a top view of the preferred beverage container holder of FIG. 1 in a collapsed and flattened condition;



United States Patent

[19]

Coffin, Sr.

[11] Patent N

[45] Date of

[54] RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER

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2,617,549 11/1952 Egger 229/4.5

2,641,402 6/1953 Bruun 229/4.5

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**United States Patent** [19]  
**Coffin, Sr.**

[54] **RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER**

[75] **Inventor:** David W. Coffin, Sr., Fayetteville, N.Y.

[73] **Assignee:** Design By Us Company, Philadelphia, Pa.

[21] **Appl. No.:** 854,425

[22] **Filed:** Mar. 19, 1992

[51] **Int. Cl.:** B65D 3/28

[52] **U.S. Cl.:** 229/1.5 B; 206/813; 220/441; 220/DIG. 30; 229/1.5 H; 229/DIG. 2; 493/296; 493/907

[58] **Field of Search:** 229/1.5 B, 1.5 H, 4.5, 229/DIG. 2; 220/441, 671, 737-739; DIG. 30; 493/287, 296, 907, 908; 209/8, 47, 215; 206/813

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[11] **Pat. No.** 5,092,485

[45] **Date of Patent** 12/1/92

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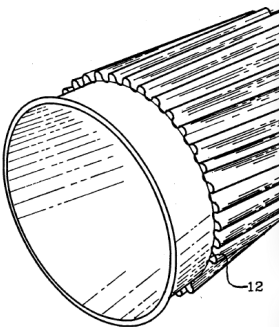
5,092,485 12/1/92

**The Wiley Engraving Co., Inc.**

**Primary Examiner:** Gary E. Elmer

**Attorney, Agent, or Firm:**

[57] **Corrugated beverage container holder comprising a corrugated tubular member comprising cellululosic material and at least a first opening therein for receiving and retaining a beverage container, said corrugated tubular member comprising fluting means for containing insulating air; said fluting means comprising fluting adhesively attached to a liner with a recyclable adhesive.**



**4. The holder of claim 1, wherein said tubular member comprises at least two pivot axes for permitting said tubular member to fold into a flattened condition.**

**5. The holder of claim 1, wherein a surface of said liner is coated with a water-resisting agent.**

**6. The holder of claim 1, wherein said fluting comprises sinuous fluting.**

**8. A recyclable collapsible beverage container holder comprising a corrugated tube**

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,  
        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.

Preamble

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.

Preamble

Transition

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.

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.

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

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

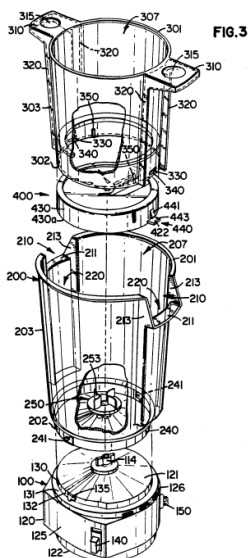
- “**Comprising**”: must include at least the listed elements
- “**Consisting of**”: must contain only the listed elements
- “**Consisting essentially of**”: must contain only the listed elements and others that do not substantially change the invention

# Mechanics and formalities of claims

## → Body

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

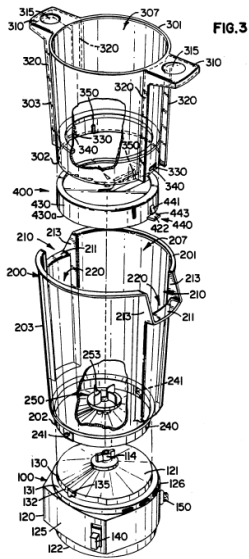
## US patent 5,089,286



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,

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.

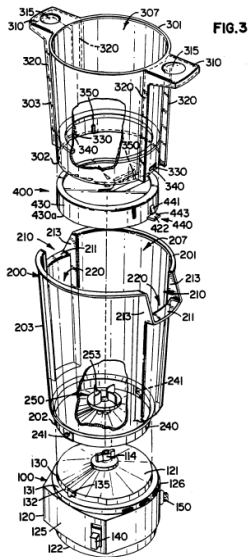
# Mechanics and formalities of claims

→ 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



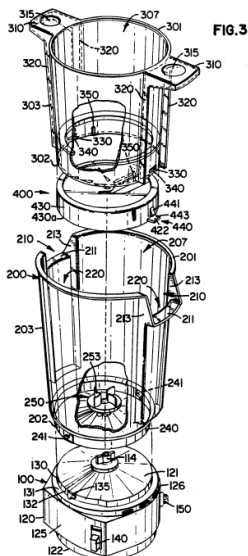
## US patent 5,089,286



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:

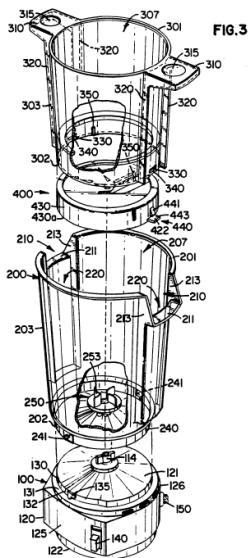
1. A vegetable cutter, comprising:  
a frame having an open end and defining a retention compartment,  
a container defining a retention chamber which is configured for reception within the retention compartment,  
a means for rotating a vegetable retained within the retention compartment,  
a blade 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.

# 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.”

## 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.

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:

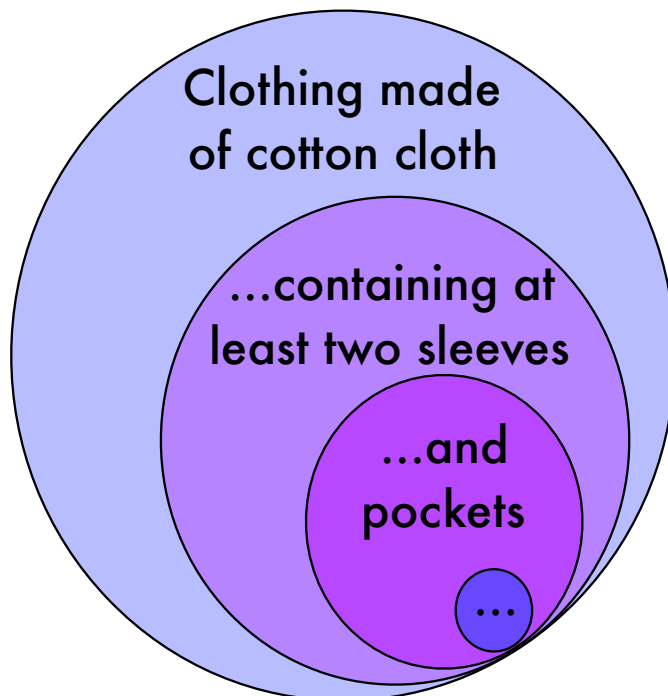
- What are your goals in drafting claims?

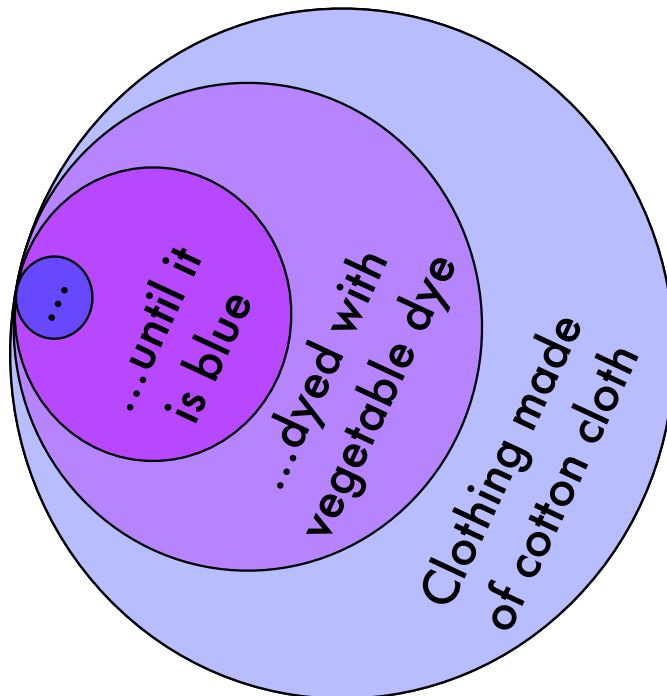
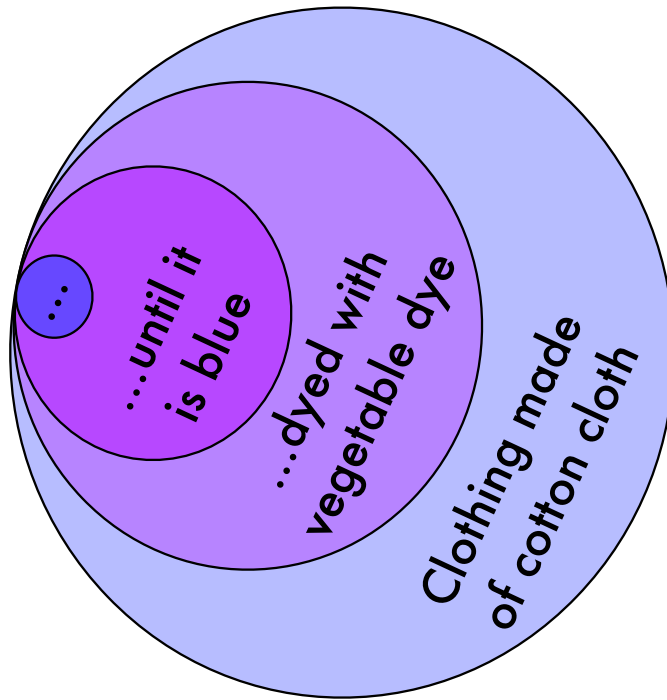
# Claim strategy

→ Claim-drafting goals:

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

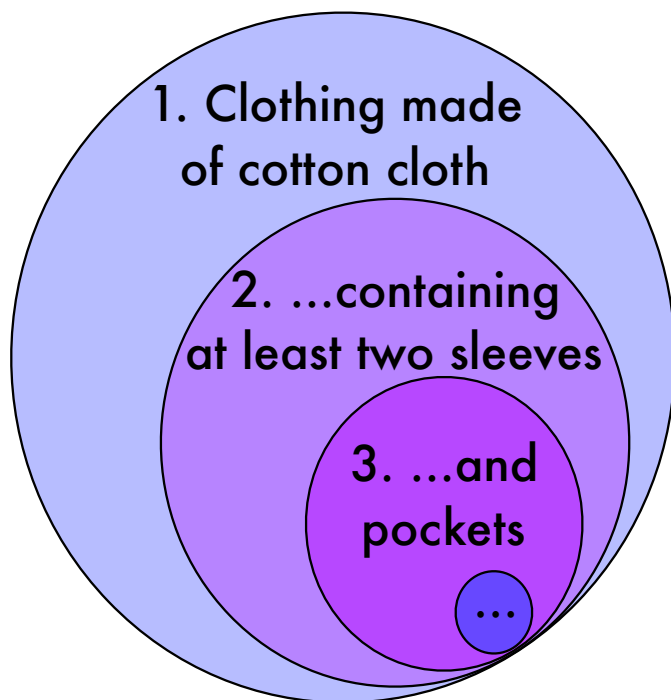
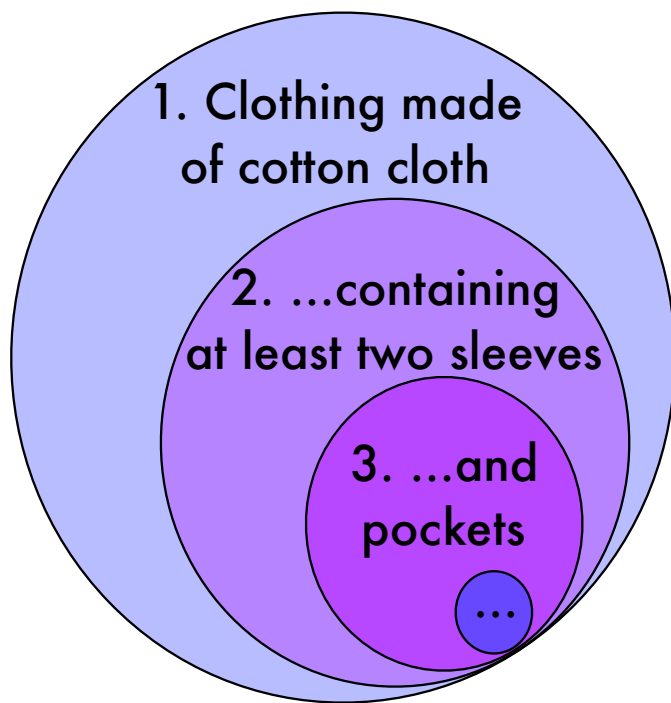
→ Your client's  
invention:  
a blue cotton  
shirt with  
two pockets



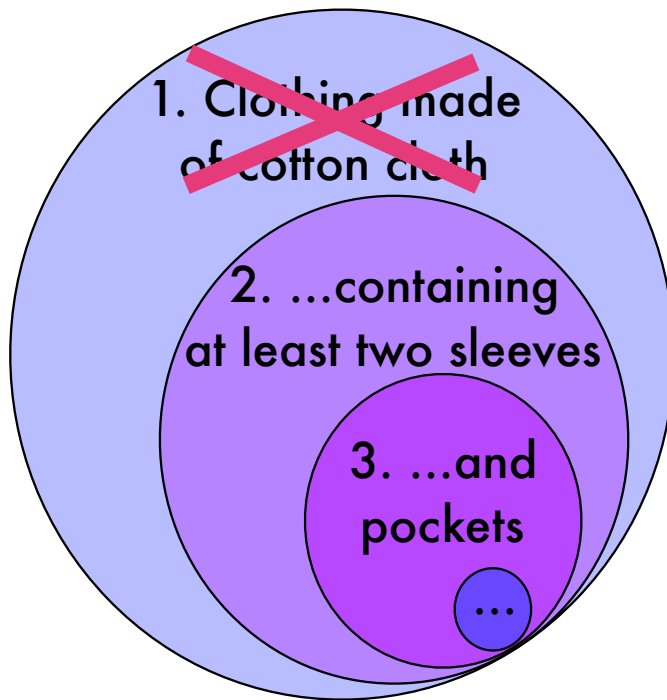


→ The point: You need to spend a lot of time brainstorming the different implications of your invention and the different ways to express it.

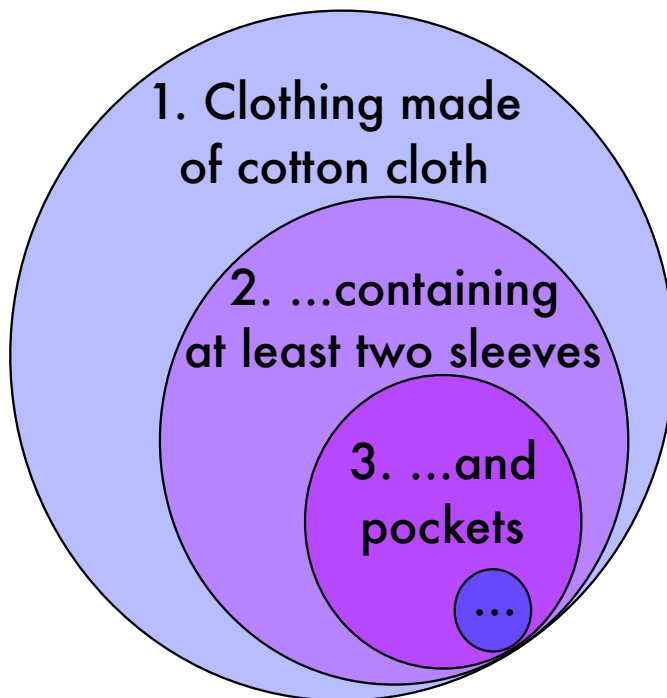




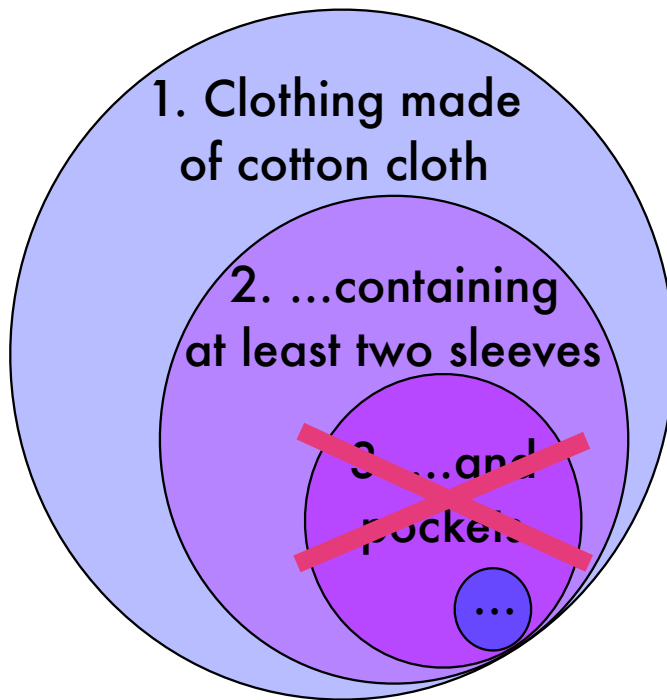
→ Prior art:  
pants made of  
cotton?



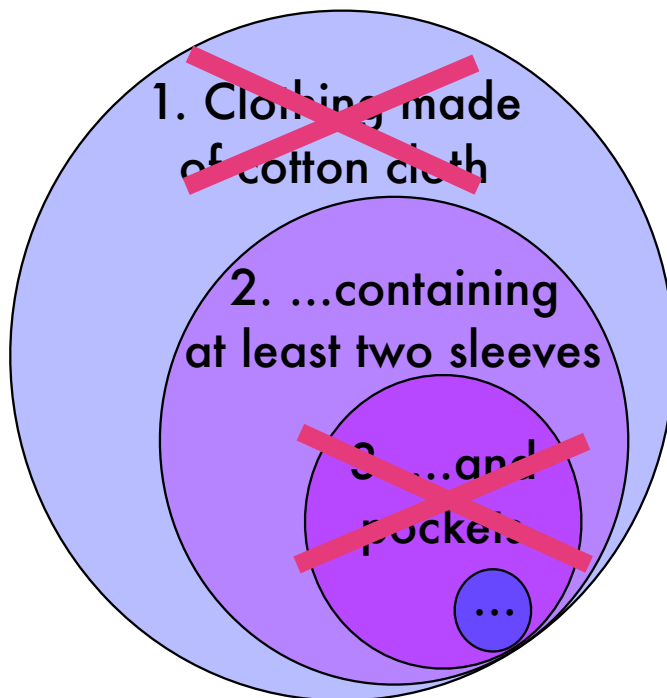
→ Prior art:  
pants made of  
cotton?



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



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



→ Prior art:  
pants made of cotton?

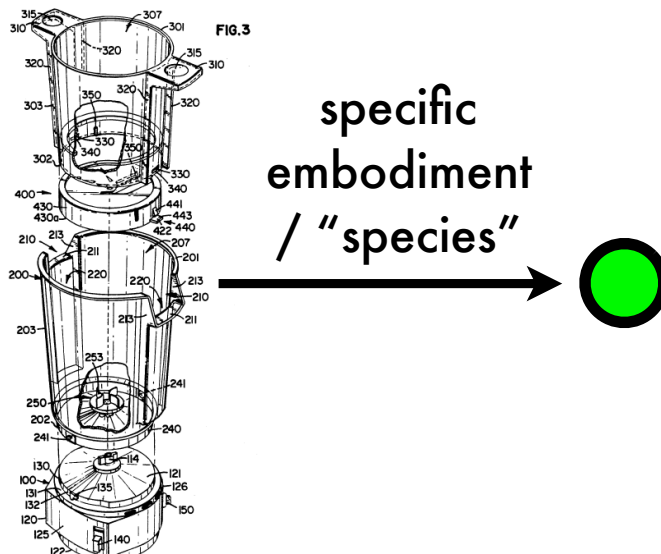
→ Accused product:  
cotton shirt with sleeves but no pockets?

# Claim strategy

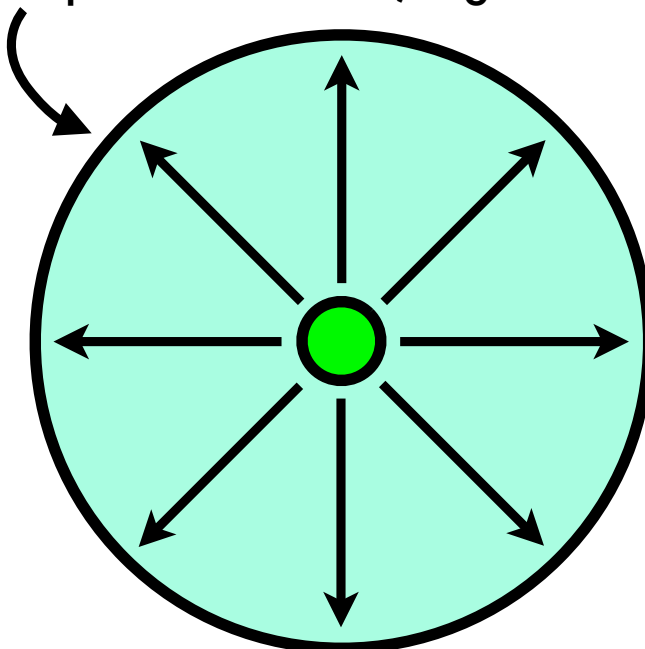
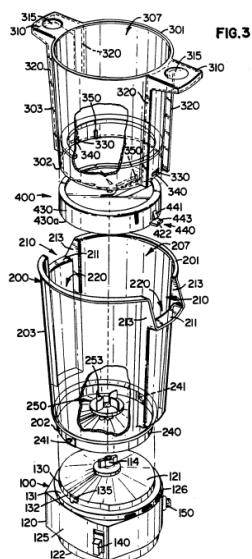
→ How do you craft a set of claims?

→ One way:

- Start with specific embodiment of the invention
- Expand more broadly



conceptual invention / "genus"



Claim-drafting  
exercise

# 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 writing instrument comprising:  
a casing, wherein disposed within the casing is a solid core;  
the solid core including  
a marking element comprising a mixture or a pure compound,  
wherein the marking element produces a mark on the surface that  
does not blot;  
a tip, wherein the tip of the solid core adheres to a surface and does  
not tear the surface when the marking element produces a mark on  
the surface; and  
an eraser, wherein the eraser rubs out the mark.
2. The writing instrument of claim 1, wherein the casing comprises a  
wooden material.
3. The writing instrument of claim 2, wherein the wooden material is soft.
4. The writing instrument of claim 1, wherein the tip is pointed.
5. The writing instrument of claim 1, wherein the marking element produces  
a dark mark.

1. A writing instrument comprising:
  - a cylindrical wooden base; and
  - a solid graphite or lead core; and
  - a rubber gob.
2. A means of writing on parchment using the writing instrument according to claim 1 comprising:
  - producing a dark mark when dragged across parchment; and
  - not tearing parchment when dragged across.
3. A means of writing on parchment using the writing instrument according to claim 1 wherein the improvement comprises;
  - not causing blotting by creating a dry mark; and
  - producing marks which may be rubbed out using the rubber gob.
4. The writing instrument according to claim 1, further comprising;
  - either lead or graphite core, with soft graphite producing the clearest mark; and
  - soft wood creating the more pleasing base.

# 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