

Patent Law

Prof. Roger Ford
January 20, 2016
Class 1: Introduction

Today's agenda

- Administrative notes
- Intro to the patent system
- Mechanics and institutions of the patent system
- Architecture of the patent document

Administrative notes

Administrative notes

- Class meetings
- Make-up classes
- Reading assignments
- Grading
- Patent cases and technology

Intro to the patent system

Intro to the patent system

→ 35 U.S.C. § 101:

- “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.”

Intro to the patent system

- Limited property rights
 - Negative rights: right to exclude
 - Positive rights: right to sell/license
 - No positive right to practice

Intro to the patent system

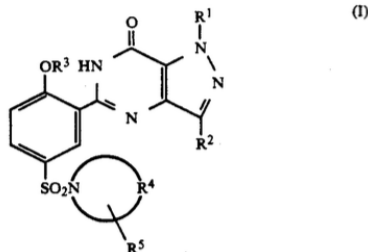
- **Group question:**
 - What are some reasons a patent holder would not have the right to practice her invention?

Sildenafil citrate

Claim 1 of U.S.
patent 5,250,534

We claim:

1. A compound of the formula:



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;

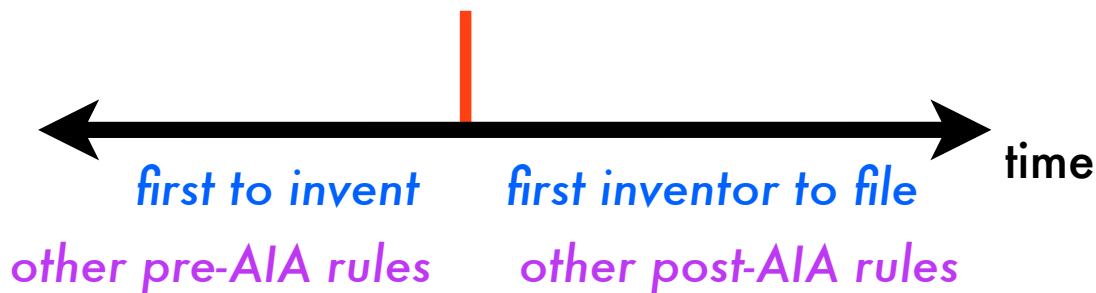
R⁶ is H, C₁-C₆ alkyl, (C₁-C₃ alkoxy) C₂-C₆ alkyl hydroxy C₂-C₆ alkyl, (R⁷R⁸N)C₂-C₆ alkyl, (R⁷R⁸NCO)C₁-C₆ alkyl, CONR⁷R⁸, CSNR⁷R⁸ or C(NH)NR⁷R⁸;

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.

Intro to the patent system

March 16, 2013



Intro to the patent system

→ Group questions:

- What are the advantages and disadvantages of a first-to-invent system?
- What are the advantages and disadvantages of a first-to-file system?
- Why do you think the US switched?

Intro to the patent system

→ U.S. Constitution:

- [Congress has the power] “To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive rights to their respective writings and inventions.”

Intro to the patent system

- Advantages of exclusivity
 - Monopoly profits → greater *ex ante* incentive to invent
 - Exclusivity → greater *ex post* incentive to develop new invention
- Advantages of the patent bargain
 - Public disclosure → knowledge can be used by others

Intro to the patent system

- Disadvantages of exclusivity
 - Monopoly pricing → goods become more expensive
 - Monopoly pricing → output falls
- Balancing the tradeoff
 - Limited patent term
 - Limited patent rights?

Patent mechanics and institutions

Patent mechanics and institutions

- Obtaining a patent
 - PTO
- Enforcing patent rights
 - Federal courts

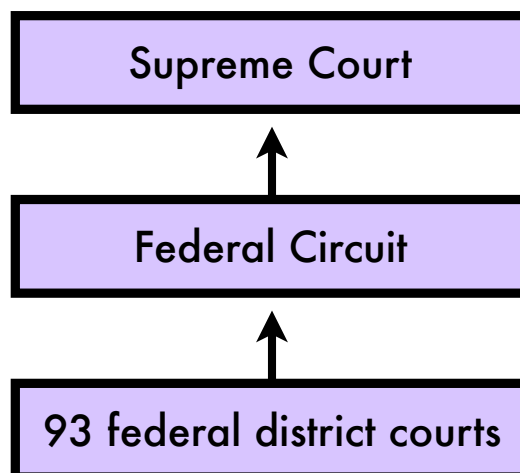
Patent mechanics and institutions

→ PTO

- Examination-based
- Negotiation creates [prosecution history](#)
- Appeals to PTAB and then Federal Circuit
- Or, you can bring a claim in federal district court

Patent mechanics and institutions

→ Courts



Patent mechanics and institutions

- International Trade Commission (ITC)
 - Very popular venue for electronics cases
 - Remedy: blocking imports of accused products
 - Cannot award money damages

**Architecture of the
patent document**

US005205473A

United States Patent [19] Patent Number: **5,205,473**
Coffin, Sr. [45] Date of Patent: **Apr. 27, 1993**

[54] **RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER** 2,661,889 12/1953 Phinney 229/4.5
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[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.³ **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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Primary Examiner—Gary E. Elkins
 Attorney, Agent, or Firm—Synnestvedt & Lechner

[57] **ABSTRACT**

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18 Claims, 8 Drawing Sheets

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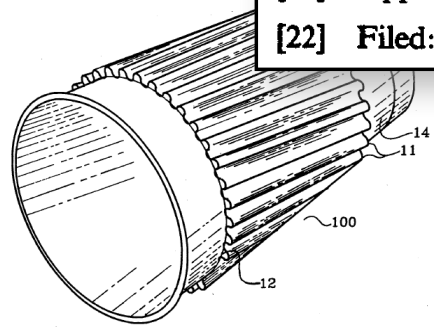
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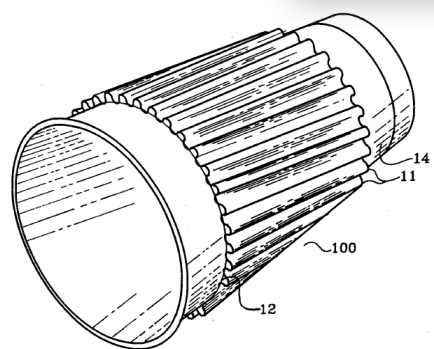
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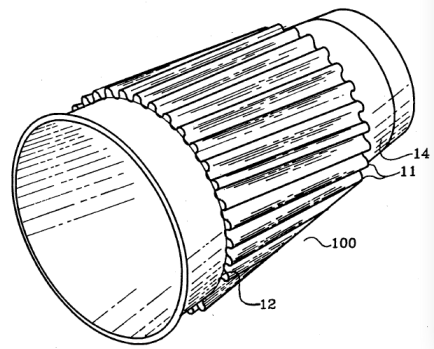
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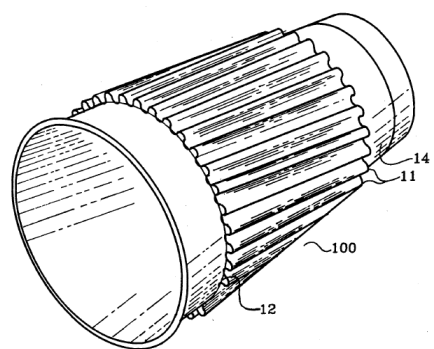
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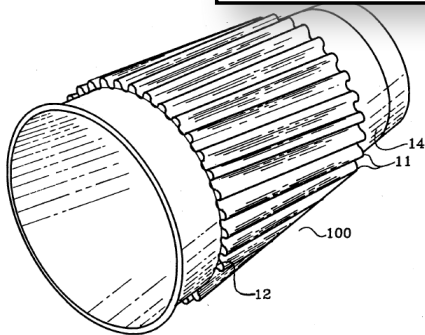
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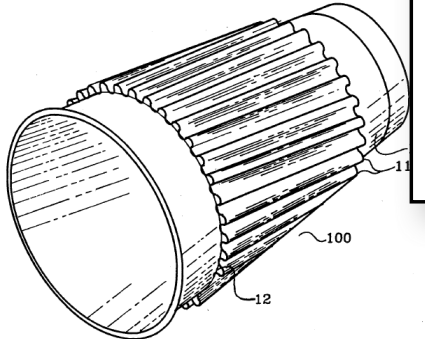
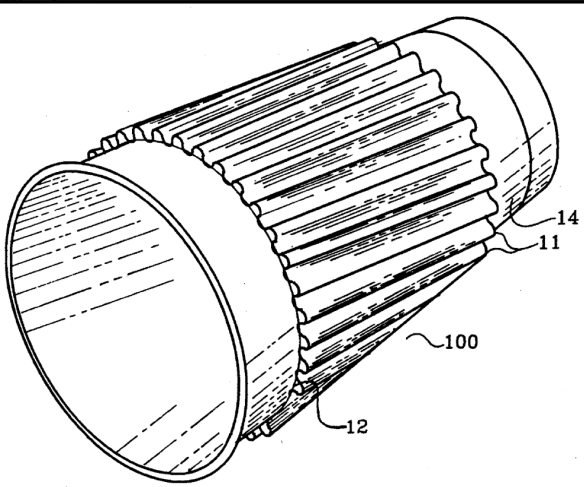


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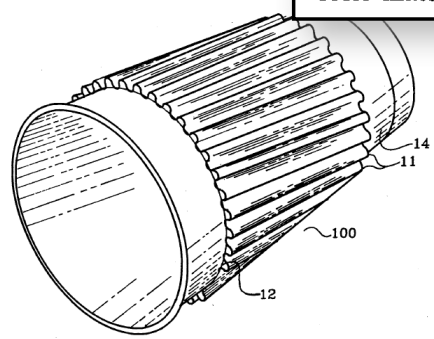
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RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER

FIELD OF THE INVENTION

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

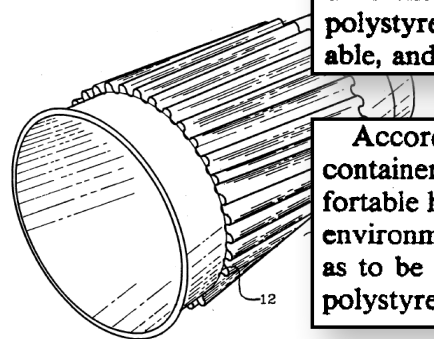
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BACKGROUND OF THE INVENTION

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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United States Patent [19]
Coffin, Sr.

[11] Patent Number: 5,205,445
[45] Date of Patent: Apr. 27, 1992

[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.³ 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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Primary Examiner—Gary E. Elkins
Attorney, Agent, or Firm—Synnestvedt & Lechner

[57] **ABSTRACT**
Corrugated beverage containers and holders are employed recyclable materials, but provide fluting structures for containing insulating air. These products easy to hold and have a lesser impact on the environment than polystyrene containers.

18 Claims, 8 Drawing Sheets

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.

US05052473A

United States Patent [19]
Coffin, Sr.

[54] **RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER**
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[73] Assignee: Design By Us Company, Philadelphia, Pa.
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[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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2,617,549 11/1952 Eager
2,641,402 6/1953 Bruun 229/4.5

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[57] **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 No.
[45] Date of

[54] RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER 2,661,889 12/1993
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[75] Inventor: David W. Coffin, Sr., Fayetteville, N.Y.

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Attorney, Agent, or Fir
[57] Corrugated beverage c
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18 Claims

DETAILED DESCRIPTION OF THE INVENTION

45 This invention provides corrugated beverage container holders and beverage containers which are environmentally friendly and which provide adequate insulation properties approaching those of polystyrene. The corrugated tubes of these products preferably contain

50 longitudinally extending flutes and include a generally tapered or conical structure, typical of beverage containers. The corrugation can be made of cellulosic materials, including craft paper, sulfite paper, or recycled paper. Ideally, the fluting and liners of this invention are

55 adhered to one another with a recyclable, and preferably, a biodegradable adhesive, for example, R130 adhesive by Fasson Inc., Grand Rapids, MI.

60 With reference to FIGS. 1-5, there is shown, in multiple views, a preferred beverage container holder 100 of this invention. The preferred holder 100 includes a tubular structure having an inner liner 12 and sinuous fluting 11 disposed around the periphery of the liner 12.

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[11] Patent No.
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[57] Corrugated beverage c
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ment than polystyrene

10 While this discussion has primarily focused upon the application of this invention to beverage container holders, a further preferred embodiment is described in

15 FIGS. 11-13, which illustrate a corrugated container or cup. The corrugated beverage container 300 contains a drinking lip 113, fluting 111, inner liner 122, and an optional exterior liner 124. Preferably, the inner liner

20 122 is coated with a water-resisting or water-proof agent at least on the surface that is to be exposed to a beverage, as disclosed earlier. The construction techniques known in the industry for making paper cups can be readily adapted to the preferred materials of this invention for manufacturing the preferred corrugated beverage container 300.

United States Patent [19] Coffin, Sr. [45] Pat. Date

[54] RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER 2,661,889 12

[75] Inventor: David W. Coffin, Sr., Fayetteville, N.Y. 2,969,801 10
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[73] Assignee: Design By Us Company, Philadelphia, Pa. 3,890,762 10
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[22] Filed: Mar. 19, 1992 4,170,054 11
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[51] Int. Cl.³ 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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2,501,815	3/1950	Hamm	
2,617,549	11/1952	Sager	
2,641,402	6/1953	Braun	229/4.5

Corrugated beverage containers employ recyclable flutes for containing liquid and are easy to hold and crush more than polystyrene containers.

Primary Examiner: Gary P. Elkins
Attorney Agent: [57]

18 Claims, 8 Drawing Sheets

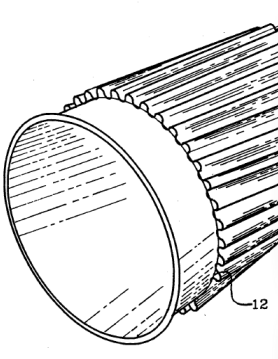
1. A recyclable, insulating beverage container holder, comprising a corrugated tubular member comprising cellulosic material and at least a first opening therein for receiving and retaining a beverage container, said corrugated tubular member comprising fluting means for containing insulating air; said 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



Next time

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→ Claim drafting