



Theme 6: Competitive Edge and Technological Advances as a Tool for Enhancing the Competitiveness of SMEs in the Textile and Clothing Sectors

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Technological Advances as a Tool for Enhancing the Competitiveness

- The first known textile was made from flax, and, since flax was introduced, textiles, and the apparel made from textiles and other products, have continued to be modified and improved for a variety of purposes.



Keeping us Dry

Man has always strived to keep out the elements....



The Original Trench Coat

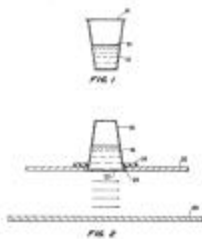
- Originally designed in the 1890s by Thomas Burberry for field sports, the trench coat was used by officers in the trenches during WWI – hence, its name. From detectives and spies to its important role in business “dress for success,” the trench coat has outlasted fashion trends for generations.

Phoenix Art Museum
Fashion Design Gallery
February 19, 2005 – June 19, 2005



US 4194041 A

TITLE: *Waterproof Laminate*

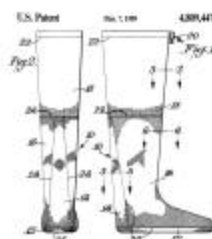


•A waterproof article for use in, for example, protective clothing.

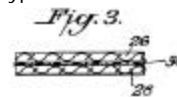
•The article prevents liquid water from penetrating through to undergarments while at the same time permitting moisture vapor such as perspiration to pass out through the article. The article is thus both breathable and waterproof.



Waterproof Breathable Sock



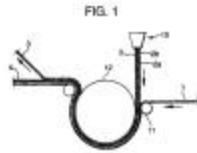
- **US Pat. No. 4,809,447**
- A multi-component, waterproof, sock-type article





Extrusion Coating Process

- A process for preparation of a waterproof vapor permeable laminate



US Pat. No. 6,645,336



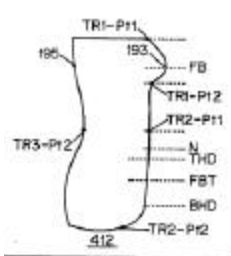
Making Clothing That Fits

The use of imaging to make clothing to fit a customer...

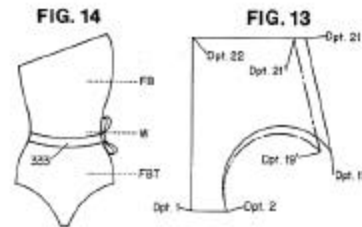


Custom Fit US Pat. No. 5,163,006

- System for designing custom-made, form fitted clothing, such as bathing suits



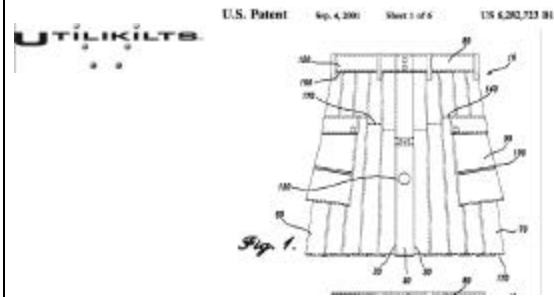
Custom Fit US Pat. No. 5,163,006



Making Clothing For Specific Purposes



Symmetrical pleated skirt





Making Higher Quality Textiles



Using specialized cameras to detect color variation in fabric



Examples of Technology in Textiles: Nanotechnology

- **Molecular Nanotechnology** – through three dimensional structure control of materials and devices at the molecular level, the products and processes of molecular manufacturing



Applications of Nanotechnology

- **nanotechnology** can be used to create better:
 - radiation detectable and protective articles
 - water-repellent articles
 - antibacterial textile fabrics
 - wrinkle-resistant textiles
 - color in textile coatings
 - thermal enhancing textiles



Intellectual Property Protection for Technological Advances

- Design Patents
- Utility Patents
- Trademarks
- Copyrights
- Unfair trade Protection; Trade Secrets



Intellectual Property Protection for Technological Advances

- In the U.S., innovative textiles and clothing can be protected with:
 - A design patent, if:
 - "new, original and ornamental design for an article of manufacture..."
 - If technology does not change the appearance, design patent protection would not be appropriate



DEFINITION OF A DESIGN

A design consists of the visual, ornamental characteristics applied to or embodied in an article of manufacture. The subject matter of a design patent application may relate to:

- 1) Surface ornamentation applied to an article
- 2) The shape or configuration embodied in an article
- 3) A combination of surface ornamentation and shape or configuration of an article



US-PAT-NO: D459057



US-PAT-NO: D435223



Gucci
Wristwatch



Hague Registration DM/065706

2



Hat with DHL Logo



Hague Registration DM/062882

1.2



Parachuting Suit



Intellectual Property Protection for Technological Advances

- In the U.S., innovative textiles and clothing can also be protected with:
 - A utility patent, if:
 - Novel and unobvious, and if an adequate written description and best mode of making or using the product are disclosed
 - The USPTO has a number of issued patents and pending utility patent applications involving nanotechnology and textiles



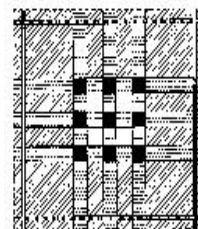
Intellectual Property Protection for Technological Advances

- In the U.S., innovative textiles and clothing can also be protected with:
 - A trademark, if
 - they are nonfunctional and distinctive ("product-design trade dress")
 - Distinctiveness requires a showing that the design has acquired a "secondary meaning"

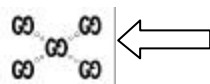


Burberry™ Signature Plaid

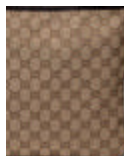
- The specific weave of the Burberry plaid is trademarked.



Gucci Signature Fabric

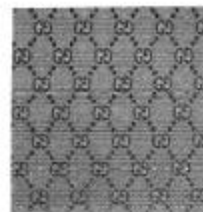


Trademarked Element in the fabric

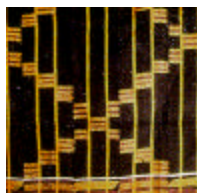


Gucci Signature Fabric

U.S. Patent No. 4,188 Des. 400,560



Kente Cloth- AKYEMPEM



<http://www.ghana.com/republic/kente/kente.html>



Headscarf UK Design #3003516





Intellectual Property Protection for Technological Advances

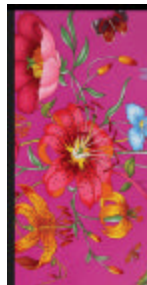
In the U.S., innovative textiles and clothing can *also* be protected with:

- A copyright, if
 - the design aspects can be physically or conceptually "separated" from the functional aspects of the useful article



GUCCI PRINT

Textiles such as this one can be copyrighted.



Copyright for the three plumes?



Intellectual Property Protection for Technological Advances

- In the U.S., innovative textiles and clothing can *also* be protected under various federal and state unfair competition laws
 - Prohibit the use of another's design if such use is fraudulent or misleading and is likely to cause confusion, mistake, or deceit as to the source of the article



Intellectual Property Protection for Technological Advances

- For example, if a dye was a company trade secret, the company could prevent others from using the dye if:
 - A trade secret existed
 - The trade secret was communicated to the other person
 - The person used the communicated information, knowing that it was a trade secret
 - Injury resulted to the company that had the trade secret



USPTO CONTACTS

Office of International Relations:

☎ 571-272-9300

Website:

☐ www.uspto.gov