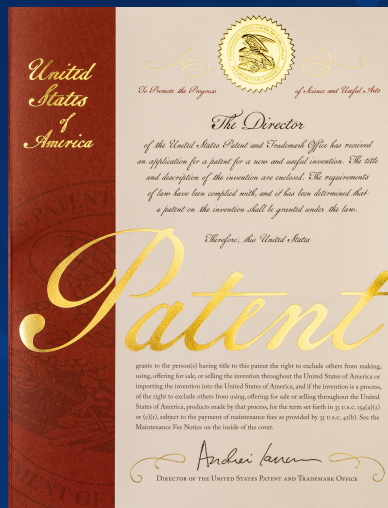


Patent Law

An Introduction for Graduate Students and Post-docs



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Roadmap

- 1) Overview of Intellectual Property
- 2) Focus on Patent Law
- 3) Why you need to know about Intellectual Property
- 4) Case study: *chew on this!*



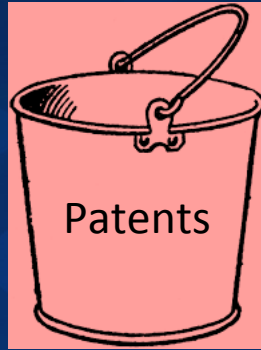
Overview of Intellectual Property

United States Constitution Art. 1 § 8: Patent and Copyright Clause

[The Congress shall have power] “To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”



Overview of Intellectual Property



Overview of Intellectual Property

Patents: gives owner right to exclude others from making, using, selling, offering to sell, or importing invention

Trademarks: word, name, symbol, design, slogan, sound, color, product shape, scent, etc. which identifies and distinguishes goods and services of one seller/manufacturer from those of another

Copyrights: original work of authorship that has been fixed in any tangible medium of expression (ex. article, lab notebook, thesis, photograph)

Trade Secrets: proprietary information used in business which gives owner competitive advantage (ex. manufacturing processes and formulas, like Coca Cola recipe)

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Patent Rights

- A patent provides **a right to exclude** others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States for 20 years from the date an application for a patent was filed in the United States. 35 USC 154.
- A patent does NOT give owner right to make, use, or sell invention
- U.S. patents can cover compositions of matter, formulations, devices, methods of manufacturing, and designs

Patent Rights

- Most countries require “absolute novelty,” where patent application is on file before any public disclosure
- One year grace period for filing U.S. patent application after sale, public use, or publication of product by inventor
- Safest Option – do not show invention before filing a U.S. provisional patent application
 - This establishes the U.S. filing date – but is not substantively reviewed

Why you need to know about Intellectual Property

Intellectual Property is the cornerstone of every business. It provides the hook, the distinguishing feature, which sets it apart from competitors.

- 1) Intellectual Property attorney/agent/liaison
- 2) Scientist



BREAK FOR CASE STUDY

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Case study:

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Declarations under Rule 4.17:

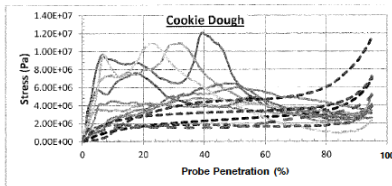
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.1 7(H))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.1 7(in))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: CHEWING GUM SNACKS; AND METHODS OF MAKING THEREOF

FIG. 1.



(57) Abstract: Disclosed herein are chewing gum snack products having multi-sensory attributes of flavor, texture, and visual appeal which provides a snack-like quality at the initial stage of chewing that then transitions to chewing gum-like qualities at later stages of chewing.

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Case study: initial claim

WO 2014/152952

PCT/US2014/028376

CLAIMS:

1. A multi-textured chewing gum product, comprising:

a.) a chewing gum composition portion and a confectionery composition portion

where a region of the chewing gum composition portion is exposed; or

b.) a first chewing gum composition portion and a second chewing gum composition portion, the first chewing gum composition portion having a different composition and different texture than the second chewing gum composition portion, and where a region of the first or second chewing gum composition portion is exposed;

the multi-textured chewing gum product has an initial crunch characteristic determined by a Texture Analyzer Test where there are at least three changes in slope direction in a stress versus probe penetration (%) curve and at least one negative slope that covers a stress range of at least 1, at least 1.5, at least 2, or at least 2.5 million pascals;

wherein the Texture Analyzer Test provides results as stress versus probe penetration (%).

Case study: EP claim (intended to grant)

CLAIMS (December 2018)

1. A multi-textured chewing gum product, comprising:
 - a chewing gum composition portion and a confectionery composition portion where a region of the chewing gum composition portion is exposed;
 - the multi-textured chewing gum product has an initial crunch characteristic determined by a Texture Analyzer Test where there are at least three changes in slope direction in a stress versus probe penetration (%) curve and at least one negative slope that covers a stress range of at least 1, at least 1.5, at least 2, or at least 2.5 million pascals;
 - wherein the Texture Analyzer Test provides results as stress versus probe penetration (%); and wherein:
 - the chewing gum composition comprises 10.0 to 55.0 wt% gum base, 35.0 to 75.0 wt% sugar polyol bulk sweetener, and 2.0 to 15.0 wt% softener based on the total weight of the chewing gum composition, and
 - the confectionery composition portion comprises 70.0 to 95.0 wt% bulk sweetener, 3.0 to 14.0 wt% fat, and 2.0 to 14.0 wt% dairy ingredient based on the total weight of the confectionery composition.

Case study: US claim (abandoned)

Docket No. CDS0527US2

IN THE CLAIMS

1. (Previously Presented) A multi-textured chewing gum snack product, comprising:

a.) a chewing gum composition portion and a confectionery composition portion, the chewing gum composition portion having a different texture than the confectionery composition portion, wherein

the total amount of gum base is about 10 to about 40;

the total amount of bulk sweetener is about 25 to about 80,

the total amount of fat is about 1 to about 20 wt%; and

the total amount of salt is 0 to 0.75 wt%,

all weights based on the total weight of the chewing gum snack product; or

b.) a first chewing gum composition portion and a second chewing gum composition portion, the first chewing gum composition portion having a different composition and different texture than the second chewing gum composition portion,

wherein

the total amount of gum base is about 35 to about 55 wt%,

the total amount of bulk sweetener is about 25 to about 60 wt%, and

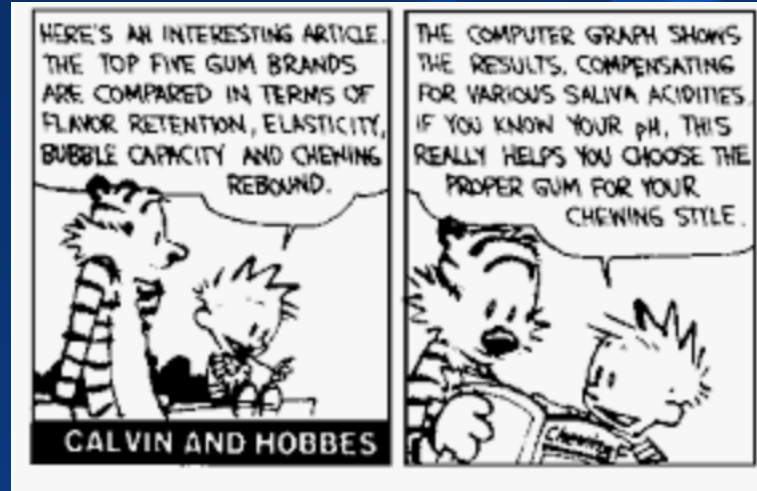
the total amount of fat is about 5 to about 20 wt%,

all weights based on the total weight of the chewing gum snack product; and

the multi-textured chewing gum snack product has a multiple bite format such that the product is to be broken by hand into smaller pieces to provide a hand-to-mouth interaction when consumed, and the multi-textured chewing gum snack product has a candy-like impression rating upon initial chewing that is at least 20 points greater than a candy-like impression rating of a chewing gum slab based on a scale of 0 to 100 as measured by descriptive analysis using the Quantitative Descriptive Analysis method.

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Thank you for your attention!



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