NATIVE AMERICAN HERBAL MEDICINES

A Brief History;
With Current USPTO Practices For Their Examination

Examiner Patty Leith
Technology Center - 1600 Biotechnology
Art Unit - 1655 Body Treating Plant, Microbial and Animal Extracts

Everything on the Earth has a purpose,
every disease an herb to cure it,
and every person a mission.
This is the Indian theory of existence.

~ Mourning Dove, Christine Quintasket (1888-1936) Salish
Coming To America

• 13,000 - 18,000 Years Ago

• Bering Strait

Geographical Location

• Resulted in different ways of living

• Costal – Stationary

• Plains- Nomadic
Nomadic Tribes

Stationary Tribes
Native American Natural Resources

Medicinal History

• Verbally passed down through generations

• Few, if any written records
Native American Petroglyphs

History of Native American Medicine

Perhaps 40,000 Years

Perhaps 24,945 Plants
Medicine Men and Women - Shamans

Medicine Bag

- Used by Native American laymen to hold spiritual items
- Used by Shamans to hold spiritual items and medicinal herbs
Native American Herbal Knowledge

- Observing behaviors of sick animals
- Trial and error
Native American Medicine and European Settlers

- Reliance on Native's medicine
- Life was arduous
- Gangrene
- English Physicians Intrigued

Nature Is Their Great Apothecary

~ John Martyn 18th Century
Historical Documentation

John Martyn et al. “The Philosophical Transactions” – 1722

John Brickell “The Natural History of North Carolina” – 1731

Jacques Cartier – St. Lawrence Expedition – 1534

Herbal Medicine Used Today

• Many have roots in Native American Herbal Medicine

• 7 of the 10 most top-selling herbals are Native American-derived
Types of Herbal Preparations

- Water Extracts - teas, infusions, decoctions
- Tinctures
- Poultices

Witch Hazel

- Distillate used to treat wounds, inflammation
- Distillate contains many phytochemicals such as catechins, quercetin and proanthocyanins
- Quercetin and proanthocyanins are anti-inflammatory
Echinacea

- *E. angustifolia, E. pallida* and *E. purpurea*
- Used primarily for cold symptoms
- Contains polysaccharides which have been shown to invoke immune response

Sage

- Spiritual Herb
- Used as an anti-convulsive
- Sores and ulcers
Dogwood

- Used for treating cold symptoms
- Contains tannic acids and lignans

Valerian

- Decoction used for epileptic seizures
- Contains hesperidin – anti-inflammatory
- Contains valtrate and isovaltrate – decrease motor locomotion
Bloodroot ~ *Sanguinaria canadensis*

Modern Pharmaceutical Herbal Industries

- Pharmaceuticals
- Nutraceuticals
- Cosmeceuticals
- Functional Foods
- Pesticides
Examiner Native American Herbals

35 USC § 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.

Claim 1. A composition comprising Valeriana officinalis.

Is unpatentable – broad enough to read on a natural product

Examiner Native American Herbals

• Claim 1. A composition comprising hesperidin.

• Still broad enough to read on a product of nature

• Unpatentable under 35 USC § 101
Examining Native American Herbals

• Claim 1. A composition consisting of hesperidin.

• Would overcome the 35 USC § 101 rejection

Examining Native American Herbals

• 35 USC § 102(b)

• Valerian is not patentable because it was known more than one year previous to Applicant's earliest US effective filing date
Examining Native American Herbals

35 USC §103(a)

It is obvious to combine ingredients (such as herbals) known for the same purpose:

In re Sussman, 136 F.2d 715, 718, 58 USPQ 262, 264 (CCPA 1943)

In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)

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Examining Native American Herbals

• Claim 1. A composition for treating brittle nails comprising a water extract of Cornus florida and a water extract of Echinacea angustifolia.

• Obvious because both herbal extracts were known for treating colds
Searching Resources

Scientific and Technical Information Center (STIC)
Scientific and Technical Network (STN)
Examiner Automated Search Tool (EAST)
Web Examiner Search Tool (WEST)
ProQuest (NPL Internet Database)
Library of Congress (LOC)
Internet (Google/Google books)

References Cited

8. Hazelhoff et al. SEPARATION OF VALTRATE AND ISOVALTRATE BY MEANS OF PREPARATIVE LIQUID CHROMATOGRAPHY; Pharmacy World and Science; Vol. 4, Number 1, 21-24 (1982)
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Questions?

Thank you!