“There’s Nothing so Bad for a Cough as Coughing!”: An Insight into the World of Quackery, Nostrum, and Patent Medicine.

by Dane Olson

Abstract
In this article, I evaluate late 19th century patent medicine on a local and global level. I attempt to explain the social, cultural, and economic mechanisms in place that would allow a heroin filled medicine bottle to go from its production factory in Lowell, Massachusetts to a little cabin 6000 ft. on the side of Hawaii’s tallest Mountain.

Introduction
Over the summer of 2005, students from University of Hawaii at Hilo conducted a field excavation of a stone cabin associated with a Stone Corral Complex at Keanakolu. Among the artifacts found, there where the fragments of a late 19th-early 20th century bottle. The embossing on the bottle identifies it as an “Ayer’s Cherry Pectoral, Lowell Mass”. After reconstructing the bottle, I began to investigate the cultural mechanisms and global economic factors that brought a late 19th century medicine bottle from Lowell, Massachusetts up to a ranching complex 6000 ft. on the side of Hawaii’s tallest Mountain.

Keanakolu’s Bottle of Ayer’s Cherry Pectoral
The area of Keanakolu was a large ranching industry center in the later half of the 19th century. The Stone Corral Complex is a series of stone walled corrals, with two (known) small outbuildings with stone foundation. These outbuildings, most likely had stone walls built half way up, with a wooden or thatched roof. During the summer of 2005, archaeological teams from the University of Hawaii at Hilo excavated five (5) 1x1 meter pits (Fig. 1) in one stone cabin with a single-room floor plan and stone fireplace. Many artifacts were found during the excavation. Included in the find were fragments of an “Ayers Cherry Pectoral” bottle. About 85% of the bottle fragments were found and reconstructed (Fig. 2-1, 2-2). The bottle does not have a pontil mark and does not have “Lowell/ Mass. USA” on the back panel, which in later bottles was changed to “Lowell/ Mass” (Hoyt 2005). Also, the bottle style, height, and embossments limit it to the early 20th century bottles or earlier (Hoyt 2005). Based on that information, the best initial estimate for date of production of the Ayer’s Pectoral bottle is 1865-1910. From the way the fragments were dispersed throughout the site and on the disbursement of other fragments from other bottles found at the site, I theorize that the bottle was placed on a mantle above the fireplace. Fragments of the base were found closest to the hearth, and the top parts of the bottle were found scattered away from the heath. From the fragmentation, I believe that the bottle fell from the mantle, striking the ground on the bottom end on the side of the bottle where “Pectoral” was embossed (Fig. 2-1, 2-2).

Ayer’s Company
After J.C. Ayer’s death in 1878, the company continued under the guidance Mr. A. G. Cook and J.C.’s brother, Frederick Ayer until his eventual retirement in 1893. The company continued in Lowell under the management of family members until it finally left Lowell around 1939. The Ayer’s drug company was founded by J. C. Ayers (Fig 3) in 1841 when he bought an apothecary shop from Mr. Jacob Robbins (whom J.C. Ayers apprenticed under) in April of that same year for $2,486.61. The money for the purchase was loaned to J.C. Ayer by

More importantly, I will be discussing their legacy on today’s medical culture, and perhaps, some vital lessons we can learn from this broken medicine bottle.
his uncle and to be paid back in 5 years. However, Ayer was so successful that he paid his uncle back in 3 years. Ayer produced a series of medicines, first starting with Cherry Pectoral in 1843. It was not until 1847 that it was bottled (Lowell Courier 1878). Cherry Pectoral was advertised to cure “Coughs, Colds, Influenza, Hoarseness, Croup, Bronchitis, Incipient Consumption, and for the Relief of Consumptive Patients, in the advanced stages of the Disease...” (Prince Edward Island The Examiner 1861)(Fig 4).

Additionally, Ayer came out with Cathartic Pills in 1854, which were advertised to treat: “Stomach, Liver and Bowels, whose derangements they prevent and cure. They are a sure remedy for Costiveness, Jaundice, Indigestion, Headache, Dizziness; transient attacks of Numbness, Biliousness, and all other diseases resulting from a disordered state of the Digestive Apparatus.” (Ayer’s Trading Card.)(Fig 5)

Agye Cure in 1857. “Ayer’s Ague Cure: Warranted a speedy and certain cure for Fever and Ague, Intermittent, Remittent, and Bilious Fevers, and for all disorders peculiar to malarious, marshy and miasmatic districts” (Ayer’s Trading Card)(Fig 6)

Ayer’s Sarsaparilla in 1859 “Ayer’s Sarsaparilla produces rapid and complete cures of Scrofula, Erysipelas, Salt Rheum, Tetter, Scald Head, Ring Worm, Sores, Boils, Humors, Pimples, Ulcers, Tumors, Eruptions, and all scrofulous diseases and conditions.” (Ayer’s Trading Card.)(Fig 7)

And finally Ayer’s Hair Vigor in 1864 “Ayer’s Hair Vigor: Restores gray hair to its original color, prevents baldness, preserves the hair and promotes its growth, cures dandruff and all diseases of the hair and scalp, and which forms, at the same time, a very superior and desirable dressing.” (Ayer’s Trading Card.) (Fig 8)

**Distribution in Hawaii**

When I first started this project, I really wondered how readily available this medicine was in Hawaii. Ayer’s Co. was a massive medicine empire of the time, so the question of distribution was an interesting one. The rate at which products are released on the mainland and to when they start appearing in Hawaii seems to be around 3+ years from initial release to actually available in Hawaii, this can be seen in the gap of dates in newspaper advertisements and actual store ledger listing the products sold in the store. This is not exclusive to medicines, but can be seen in many products; for example, introduction of gun cartridges into the Hawaiian Islands was relatively later then seen on west coast of the mainland. However, this changed dramatically in the early 20th century due to a more robust west coast shipping network and the introduction of aircraft.

It is difficult to actually place a date for the arrival of Cherry Pectoral to the Hilo area, but on of the earliest newspaper known to contain an ad from the Pacific Commercial Advertiser in 1866 (Fig 9). The most exciting part of this advertisement is that it actually lists “Ayer’s Cherry Pectoral”. Honolulu was the major port and city for the Kingdom during the later half the 19th century, as a result, many of the major druggists and apothecaries were located in Honolulu. Upon reviewing advertisements for druggist and apothecaries in that area, I found a few companies listing Ayer’s products (Fig 10). The majority of the advertisements where located in Thrum’s Hawaiian Annual, a yearly publication. The advertisements in Hawaii were mostly from general stores, druggist, or apothecaries.

**History of Patent Medicines**

Patent medicines are as old as patents themselves. Alternatives have always existed in traditional western medicine. The rise in popularity of patent medicines coincides, in some extent, with journalism. The vast majority of patent medicines, were not, in fact, patented. The term “patent” comes from marketing these medicines, the medicines that won favor with the royalty of Europe would be issued Letters of Patent, which would allow for the royal endorsement to be displayed on printed advertisements. After the American Revolution, the name stuck. The first really known patent medicine surfaced around the 1630s, “Anderson Pills” were first made in England, but allegedly a Scotsman leaned the formula in Venice while posing to be a physician of King Charles I of England (Wikipedia 2005). The second royal English patent (The first is unknown) was issued to Richard Stoughton’s Elixir in 1712 and by the mid-18th century, an incomplete list was made of all the “proprietary” medicines, those protected by patent or registration (Nickell 1998).

**The American Revolution**

Up until the Revolution, the British Empire dominated the patent industry. The British where able to produce, market, and sell their products more efficiently due to their existing colonial infrastructure; the colonists were essentially captive consumers. The ability to produce, ship, and have an exclusive market for medicines was part of the British’s recipe for success. During the Revolution, the import of most British goods was banned. As a result, this created a niche for the development of American patent medicines. After the Revolution, American
medicines where cheaper due to lower shipping costs, and American patriotism played a part in choosing products “Made in America”. (Munsey 1970).

American Patent Medicine’s Golden Age

Due to several factors, the Golden Age for patent medicines was the years after the Civil War (Young 1961). One factor was the Civil War itself; many wounded and injured veterans came home, and this created a market for pain killers and other drugs. Also, newspapers became widely distributed at this time, and it was the patent medicines’ advertisements that fueled the fire. The patent medicine industry also would be saved by its “deep pockets” in the newspapers. By the 1890s, the patent medicine industry used so-called “red clauses” in their advertising contracts with newspapers. These clauses voided the contract if a state law regulating patent medicines was passed. This effectively shut down any editorials on the issue (Center for Drug Evaluation and Research 2005). This provided a buffer for the patent medicine industry, if the issue was ever brought up, it was in the newspapers best interest to advocate against it.

Substance

The actual contents of these medicines can be shocking by 21st century pharmacological standards. The majority of these patent medicines contained morphine, heroin, cocaine, and other opium based drugs, as well as a hefty dose of grain alcohol. So much alcohol was used that some patent medicines were closer to liqueur with herbs for flavoring. The contents of Ayer’s Cherry Pectoral are known from two sources; Pacific Medical and Surgeons Journal, 1899 & Ayer’s American Almanac, 1906. The original formula was published in the Pacific Medical and Surgeons Journal in 1899:

- Acetate of morphia 3 Grains
- Tincture of bloodroot 2 drops
- Wine antimony 3 drops
- Wine ipecac 3 drops
- Syrup wild cherry 3 oz.
- Mix

And a “revised” formula was published by Ayer’s himself in his almanac in 1906:

- Wild Cherry 6 Grains
- Grindelia Robusta 4 Grains
- White Pine 4
- Grains Senega 4 Grains
- Terpin Hydrate 4
- Grains Blood Root 2 Grains
- Rio Ipecac 2 Grains

Citric Acid 2 Grains
Heroin 1-6 Grain
Solvent: Alcohol, 10 minutes to each fluid drachm; glycerine; syrup; water.

One of the more well known patent medicines was Lydia E. Pinkham’s Vegetable Compound (which was also found on the H-3 project) and depending on the formula, 15 to 20 percent alcohol (Wood 2005). Dr. Hostetter’s Stomach Bitters were another popular remedy; it contained 44.3 percent alcohol, more potent than 80 proof whiskey (Wood 2005). During the Prohibition era, patent medicines contained a large amount of grain alcohol, and people would often buy them for their alcohol content. One patent medicine, “Jamaica ginger,” was ordered by prohibition officials to change its formula because it contained too much alcohol. In order to pass a chemical test that the prohibition officials ordered to ensure compliance, some sellers added a toxic chemical called cresyl phosphate, an organophosphate compound that had effects similar to a nerve agent. Some drinkers often suffered from a form of paralysis that came to be known as “jake-leg” (Wikipedia 2005).

Towards the end of the 19th century, there were a number of radioactive medicines, among the most popular were water irradiators that would fill water with radon, which at the time was thought to be healthy. A number of these radioactive medicines contained uranium or radium (Wikipedia 2005). One of the more notable deaths due to radon poisoning was Eben McBurney Byers, a steel heir, who died a horrible death after drinking more than a thousand bottles of “radium water” (Wikipedia 2005). The effects of the medicines could, at very best, “cure” the consumer, and at very worst, kill them.

The question then becomes why did people take them at all? In the case of patent medicines that contained morphine, heroin, cocaine, and opium, it became a matter of addiction. There was no better way to secure a market than to get them addicted to a drug. There was a large market for teething aids and drugs advertised to help “sooth” children. A few of these drugs were: Dr. Moffett’s Teethina, Dr. Fahrney’s Teething Syrup, Mrs. Winslow’s Soothing Syrup, and Dr. James Soothing Syrup, which all contained opiates. These drugs were rubbed on the gums of infants or given to small children. Often, when these children were taken off these drugs, they would exhibit withdrawal symptoms, and as a result would become sick again, forcing the parent to give the child more or face him being sick. One can see how this vicious cycle would be a business dream.
Economics

The patent medicine industry was extremely profitable in its golden age. In 1859, the yearly sales of patent medicines were estimated at $3.5 million and by 1904 it had grown to $74.5 million. This rate of growth can be attributed to many things; the advances in newspapers allowing for more advertisements and almanacs which were another favorite medium of advertisement for the patent medicine industry (this was a favorite of the Ayers Co.). The Ayer’s Cherry Pectoral bottle was sold in three sizes: small for 25c, medium for 50c, and large for $1.00 (Fig. 11). Compared with the modern dollar, these prices would range from $3.83 to $15.20. So, today’s over-the-counter medicine prices are comparable to those of the later 19th century. The low price and the ability to easily administer these drugs made them popular among those of the lower classes. Also, it is important to look at the medical industry at the time. Around this era, traditional physicians had negative reputations because of the Civil War, since the surgery they performed was sometimes more fatal than the wound. At this time, to be a professional doctor with medical school training was expensive and excluded all but the upper class. Lower class people distrusted professional doctors because they came from a much higher class, often the doctor’s fees and medicines were too costly for them to afford. Not knowing what the disease was or how to treat it could lead people to search out any “cure all”.

Patent medicines have always benefited from the placebo effect. Patent companies also exploited the desperation of the terminally ill. This is still a major issue within today’s medical culture, in fact, physicians are now advising patients with terminal illnesses to seek out non-conventional medicines. Medical economics is a slippery slope, on one hand, a company is producing a life-saving medicine (in most cases), and on the other, it wants to make a profit. Companies produced drugs that were known to be harmful for the sake of profit, and this was a major issue in the age of quackery (Collier’s 1906).

The Great American Fraud

The end to the patent medicine golden age came around turn of century. In October 7, 1905 Samuel Hopkins Adams printed a series in the Collier’s entitled “The Great American Fraud” (Fig 12). Adams published ten articles in the series, which concluded in February 1906 (Center for Drug for Evaluation and Research 2005). Adam’s work was one of the most influential exposés of the time. The collective efforts of mudraker journalists and organizations like the General Federation of Women’s Clubs, state food and drug officials, the American Medical Association, and the American Pharmaceutical Association helped to expose faults in the food and drug systems in America (Center for Drug for Evaluation and Research 2005). The result from all this was the Food and Drug Act in 1906, which some consider the pinnacle of progressive legislation.

Conclusion

The passage of the Pure Food and Drug Act in 1906 was one of the first regulatory statutes on the federal level. This heralded in a new era of government oversight in many areas. However, the legacy of the patent medicine golden age is still with us today. In recent years, major drug companies have started a trend of advertising medication directly to the public, informing them of a new medication and advising them to ask their doctors if it is right for them. This is a harkening back to the golden age of patent medicines in terms of advertisement styles. Hopefully, this time around, we are more aware

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Figure 1: Map of Stone Corral Complex
Figure 2-1: Reconstructed Ayer’s Cheery Pectoral Bottle. (Back Side.)

Figure 2-2: Reconstructed Ayer’s Cheery Pectoral Bottle. (Front side.)
Figure 3: J.C. Ayer (Hoyt & Hoyt 2005)
Figure 4: Ayers Cherry Pectoral

Figure 5: Ayer’s Cathartic Pills

Figure 6: Ayer’s Ague Cure
Figure 7: Ayer’s Sarsaparilla

Figure 8: Ayer’s Hair Vigor
R. H. MCDONALD & Co.,
Importers of all Wholesale Dealers in
Drugs and Medicines!
Pure Chemicals and Extracts,
ALCOHOL.
TINCTURES,
ESSENTIAL OILS,
PATENT MEDICINES.
The following list comprises a part only of our
LARGE AND WELL SELECTED STOCK!

Which we receive direct from the manufacturers, and can
offer them on quite as good, if not better terms than any house
on the Pacific Coast:

Tarrant's Apricot.
Tarrant's Extracts Copahua and Cerveas,

Cachous (for the breath),
Diamond Cepent,
Mrs. Edith's Cordial

Bane's Liniment,

Bragg's Mustard Liniment,

Nerve and Bone Liniment,

Condition Powders for Horse,

Kedra's Ready Relief,

Dactinocarpus, Thorn's Extract,

Daltby's Pain Killer,

Indolene Ink,

Lyon's Katharon,

Ointments, a great variety;

Ayer's Cherry Pectoral,

Pills, 100 kinds: Darm's Tonic,

Liberator's Balsam of Wild Cherry,

Hungarian Balsam,

Rommel's Balsam,

Ayer's Ague Cure, Rhode's Fever and Ague Remedy,

Bachelors' Hair Dye, Hair Dye, different kinds;

Liverwort and Tar, Hosack's Panacea,

Swain's Panacea,

Houghton's,

Sarasaparilla, Townsend's,

Sarasaparilla, Sands,

Brown's Sarsaparilla.

Figure 9: Pacific Commercial Advertiser, 1866

A. McWAYNE,
HONOLULU DRUG STORE,
CORNER OF FORT AND MERCHANT STREETS,
HONOLULU.
IMPORTER AND DEALER IN
Drugs, Chemicals & Toilet Articles

Lamb's Extracts, Godsell's Extrait, Lamb's Extrait, Wide's Extracts, Godsell's Colognes, Godsell's German Cologne, Lamb's Rouge, Challe's Rouge, Challe's Rouge, Touch Powder, Hair Brushes, Hair Stix, etc. Gentile's Cherry Tooth Paste, Farrow & Brown's Colonial Tooth Paste, Lynn's Toiletries, Housfield's White Tooth Powder, etc., etc. Benin's Toothpastes, Benin's Toothpaste, Lamb's Poms, Challe's Lime Juice and Dyevatce, Combe's All Kinds, Bath Soap, Full Shave, Puff Shave, Toilet Powders, etc., etc. Benin's Attire, Benin's Attire, David's Syrups, Macsway's Vaginal Inunction and Sanctum Syrups, Burnt Pumps, Nursing Bottles, etc., etc. Extra Finishes for Nursing Bottles, Barrow Bottle Stoppers, Challe's Shave, Art In, Toilet Syrups, Carriage Syrups, Sutures of Swabs, etc., etc.

A Complete Line of Patent Medicines,

AGENT FOR HOLTERTMANN'S LIFE DROPS.
Epsom Salts, Alum, Sulphar, Brinehazer, Gymn Compounds, &c., &c.

PURE FRESH MADE SEIDLITZ POWDERS!
Sulpharic, Muriatic and Nitric Acids.

Figure 10: Thrums Hawaiian Annual, 1877
Coughing

"I was given up to die with quick consumption. I then began to use Ayer's Cherry Pectoral. I improved at once, and am now in perfect health."—Chas. E. Hartman, Gibbstown, N. Y.

It's too risky, playing with your cough. The first thing you know it will be down deep in your lungs and the play will be over. Begin early with Ayer's Cherry Pectoral and stop the cough.

Three sizes: 2¢, enough for an ordinary cold; 50¢, just right for bronchitis, hoarseness, hard colds, etc.; $1, most economical for chronic cases and to keep on hand.


Figure 11: The Sun Newspaper of Fort Covington, N.Y. January 8th 1903
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