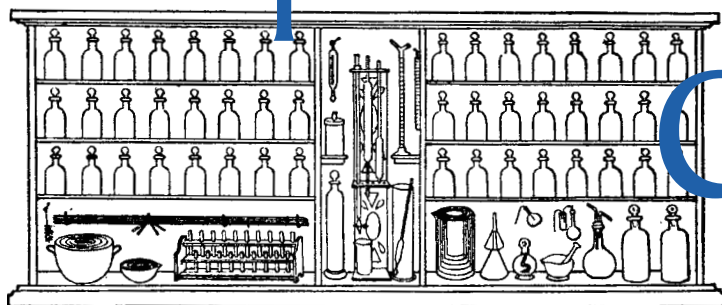


Apothecary's Cabinet



No.5, Fall 2002

News and Notes from the American Institute of the History of Pharmacy

A Pioneer Herbal Drug: The Early History of American Ginseng

by Greg Higby

IN 1972, Richard Nixon surprised a nation—and shocked his old conservative allies—by announcing his trip to the People's Republic of China. After a generation, the United States again turned its attention to that vast and ancient land. The new open door policy brought many aspects of Chinese culture back into the American consciousness, including the lore connected with that most revered drug: Ginseng.

Before 1970, ginseng was an inconsequential rarity on the American pharmaceutical scene. Only one company manufactured ginseng products for the national market, Herb Products Company of North Hollywood, California. Described only as "Asiatic Ginseng," these products included 50 #1 capsules of powdered drug for \$7.95 and 4-ounce packages of

loose powder for \$17.00, and were probably marketed primarily to Asians living on the West Coast.

Today there are at least 75 different ginseng products marketed nationally from 30 different manufacturers. Of these, about half of the products are explicitly from Asian sources; only a few products are explicitly from American ginseng. But I am getting ahead of the story.

In the early to mid-1970s, long before ginkgo, echinacea,

St. John's wort, or all the other herbal products flooded pharmacy shelves, the American public heard about ginseng. Based on the centuries-old reputation of ginseng in East Asia, Americans began turning to the drug as an alternative to conventional medicine. In this sense, ginseng was the "pioneer" herbal.

The lore of ginseng, however, is often much more interesting than its true history. Still, the tale of ginseng from its dis-

The American Institute of the History of Pharmacy is a unique organization dedicated to the preservation of pharmacy's heritage. The *Apothecary's Cabinet* is a publication from AIHP that takes a popular look at the history of pharmacy in its many facets. We welcome your comments and submissions.

covery by Westerners in the New World to its subsequent place in American drug trade up to 1900 parallels other historical trends in the history of pharmacy during this period. The early history is especially interesting because that is where so many myths need dispelling. There is also the interesting fact that American ginseng, valued as a substitute for Asian ginseng in China, was almost totally ignored as a remedy in American medicine.

Classic Chinese Use

Legend says that ginseng has been used medicinally in China, Tibet, and Korea for thousands of years. One ancient text describes ginseng as “a tonic to the five viscera, quieting the spirits, establishing the soul, allaying fear, expelling evil effluvia, brightening the eye, opening up the heart, benefiting the understanding, and if taken for some time it will invigorate the body and prolong life.” Because of its reputation to restore balance to the Yin and Yang of the body, ginseng was often included in recipes with other drugs. Attempts to cultivate the plant failed to produce the highest quality root, which was controlled by the office of the Emperor.

Early Knowledge by Europeans

European explorers to the East, starting with Marco Polo in the 13th century, brought back tales of this wondrous drug. Skeptics doubted its efficacy. The actual limited samples later carried back to Europe with traders created

little excitement, mainly among scholarly physicians.

Europeans had learned first about the details of the ginseng plant from the general writings of Jesuit missionaries of the 1660s. These depictions of the wonders of the East—often confirming rejected tales of Marco Polo—were widely translated and published. In 1708, Pierre Jartoux, a French Jesuit missionary in China, was ordered with some of his colleagues by the Emperor to compile a modern atlas of China. During his survey of the Chinese border with Korea, Jartoux was given four ginseng plants by a local dignitary. Exhausted from the rigors of survey work in this rugged region, he tried the root as a tonic, finding its restorative powers to be surprising. In a letter back to France, Jartoux provided for the first time a complete botanical description of the entire mature ginseng plant. Moreover, and more significantly for our story here, “he described the plant’s habitat and geographical location, suggesting that it might well be found growing in a parallel environment in Canada.”

Ginseng in the New World

Jartoux’s letter soon appeared in a publication of the French Jesuits and was translated into English and published in the *Philosophical Transactions of the Royal Society of London* in 1713. A missionary in Quebec, Joseph François Lafitau, happened to hear about the letter in

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THE AMERICAN INSTITUTE OF THE HISTORY OF PHARMACY is incorporated under Wisconsin statute 180 as a non-profit organization devoted to advancing knowledge and understanding of the place of pharmacy in history. It publishes *Pharmacy in History*, *Apothecary’s Cabinet*, occasional monographs, and pamphlets; it fosters humanistic teaching in pharmaceutical education; confers awards for outstanding achievement in its field; sponsors historical meetings and exhibits; collects and preserves source materials; and serves as a center for research and information.

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1715 and rushed from his mission to nearby Montreal to read a copy. He hoped that if Jartoux's hypothesis was correct it would prove his own theory—that the continents of Asia and America were once connected and that the native Americans had come from Asia.

Apparently, Lafitau did not copy Jartoux's letter. He asked his Native American housekeeper about the plant, describing it from his memory of Jartoux's letter. She said she never saw such a plant. Discouraged, he asked several other Iroquois in the area to search, with no luck.

Eventually, after looking for three months, Lafitau stumbled across the plant in fruit near a house he was having built near the mission. The bright red of the berries caught his eye. Showing it to his housekeeper, she immediately recognized it and said that it grew all over in the deep woods nearby. Ginseng *was* in the New World! Jartoux had been right!

Lafitau had a hard time at first getting help from the Iroquois because he did not have a drawing of ginseng and he only had the description he could recall from the Jesuit publication. Moreover, the plant was nothing special to the local indigenous population. According to later authorities, the Iroquois used ginseng to allay fever, improve breathing during asthma, and to treat stomach upset, but that it was not especially prized. Soon after Lafitau's discovery, however,

the natives were enlisted to gather the plant for export, and they quickly started using it themselves as a cure-all. According to Daniel Moerman, an authority on the medicinal plants of Native America, this pattern repeated itself across the northern forest. And no matter what uses they ascribed to the plant, the native populations always traded whatever ginseng they gathered and did not appear to hoard any for their own future use.

After enlisting a nearby botanist to verify his identification, Lafitau prepared an elaborate memoir on his discovery. Ambitious, Lafitau addressed it to the Regent of France, rather than to the head of his order. (Writing 200 years later, Edward Kremers christened Lafitau's memoir on ginseng the first printed contribution to American materia medica.)

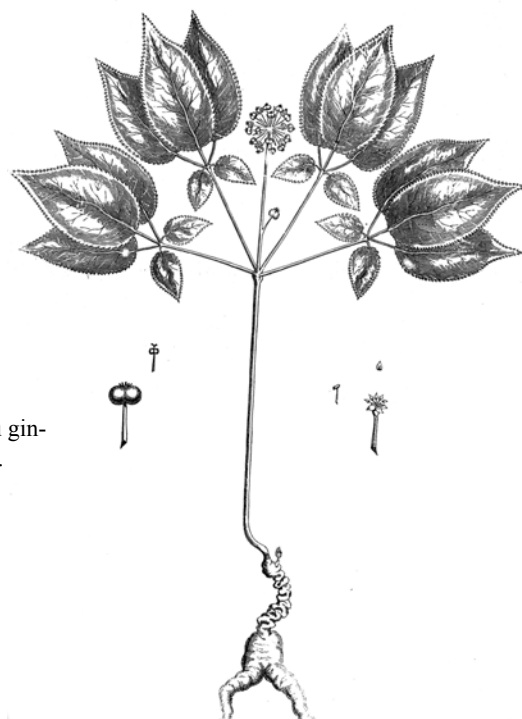
Lafitau, who possessed a strong ethnological interest in the Native Americans, was much more concerned with how ginseng demonstrated the previous existence of a land connection with Asia than with its possible trade. Not only was the plant the same as in China but the Iroquois name for the plant—gar-ent-oguen—sounded like ginseng and had a similar meaning, “man-like.”

For Lafitau, this further proved his contention that the American continent was once joined to Asia. (Father Lafitau went on to compose one of the great early ethnological studies, *Customs of the American Indians* of 1724.)

Academic discussion

Upon the publication of Lafitau's memoir, a great debate within European scholarly

Drawing of ginseng from Joseph François Lafitau, *Mémoire . . . concernant la precieuse plante du ginseng de tartarie* (Montreal, 1858).



circles erupted about the identification. Eventually, the depictions of Jartoux and Lafitau were accepted and both plants were given the genus name, *Panax*, from panacea.

“Pioneer” Drug

The news of Lafitau’s discovery went out far and wide. The Indians near Montreal began collecting it in large quantities, selling it to the French Company of the Indies, who then exported it to China via France. By the 1720s, ginseng was Canada’s second item of trade behind furs.

Peter Kalm, a Swede travelling in the New World around 1750, described the resulting trade: “The Indians especially traveled about the country in order to collect as much [ginseng] as they could and to sell it to the merchants at Montreal. The Indians in the neighborhood of this town were likewise so much taken up with this business that the French farmers were not able during that time to hire a single Indian, as they commonly do to help them in the harvest. Many people feared by continuing for several successive years to collect these plants without leaving one or two in each place to propagate their species, there would soon be very few of them left, which I think is very likely to happen, for by all accounts they formerly grew in abundance round Montreal, but at present there is not a single plant to be found, so effectually have they been rooted out. This obliged the In-

dians this summer to go far within the English boundaries to collect these roots.”

Kalm also described the initial processing of the roots: “After the Indians have sold the fresh product to the merchants, the latter must take a great deal of pains with them. They are spread on the floor to dry, which commonly requires two months or more, according as the season is wet or dry. During that time they must be turned once or twice every day, lest they should spoil or moulder.”

News of ginseng spread across to the English colonists to the south. In 1728, William Byrd, the prominent Virginia planter and writer (1674-1744) had an experience parallel to Jartoux. While surveying the boundary line between Virginia and North Carolina, he turned to ginseng. “[A]s a help to bear Fatigue, I us’d to chew a Root of Ginseng as I Walk’t along. This kept up my spirits, and made me trip away as nimbly in my Jack-Boots as younger men cou’d in their Shoes.” The ginseng he found in the woods corresponded exactly, both in “Figure and Vertues” with the plant noted by Jartoux.

Byrd corresponded with his English friends Hans Sloane and Peter Collinson about ginseng, and they passed his remarks along to John Bartram, the first great American-borne botanist. In 1738, Bartram’s discovery of ginseng along the Susquehanna River created excitement in Philadelphia. Diggers went out into the Pennsylvania woods to gather the root

for export. The American trade in ginseng had begun in earnest.

Colonial Period

As one might expect, the statistics concerning ginseng export from colonial North America are a bit sketchy. The peak of the early American ginseng market seems to have taken place in 1750, right around the time of Peter Kalm’s visit. Both the British and French bartered whiskey and trinkets for ginseng.

Prices were so high that the story goes that the Canadians flooded the market with poor quality ginseng. In their rush, they had dug up the roots too early in the season and dried them in ovens rather than in the open air. When they arrived in China, these baked ginseng roots were rejected and the Chinese came to distrust Canadian ginseng for many years.

The trade in American ginseng did rebound, foretelling a boom and bust trend that would recur for over 100 years. In 1770, for example, the colonies exported 74,605 pounds of ginseng valued at 1243 pounds sterling. Just before his death in 1771, the British novelist Tobias Smollett wrote that in six months the price of ginseng fell from about \$40 an ounce to 8 cents an ounce. The onset of the Revolutionary War greatly slowed international trade and the ginseng trade especially. The negative impact of war on ginseng trade would repeat itself as well.

The Chinese, by the way,

soon decided that while American ginseng had all the external qualities of Asian ginseng, it did not have the same medicinal activity. By the 18th century, the Chinese government had a long-standing monopoly over the market in good quality Asian ginseng, making it extremely rare and expensive. And though American ginseng was judged as inferior as a restorative, it was still much better than no ginseng at all.

Role in Trade

With the signing of the Treaty of Paris in 1783, the war was over and the infant United States looked out past its own shores, hoping to establish itself as a player on the world stage. A huge step took place on August 23, 1784, when a small ship approached Canton, China. It was called the *Empress of China* and it was the first vessel flying the stars and stripes ever to enter that harbor.

It had left New York harbor six months before, bound to China with trade goods to exchange for tea, silk, and other exotic merchandise. Within its hold, 63,595 lb. lead, 97,445 lb. of rope, 2,395 wood planks, \$20,000 in silver, and 57,687 pounds of *Panax quinquefolium*—American ginseng. Each one of the nearly half million roots had been dug by hand from the forests of Virginia and Pennsylvania, garbled (sorted), carefully dried, and carried to Philadelphia for shipment to New York.

A few previous ships from Europe had already arrived that season with smaller cargoes of American ginseng, thereby depressing the market slightly. Still, the ginseng had a value of \$240,000, or 82% of the *Empress of China*'s total cargo. As per plan, this was exchanged for tea, cloth, and porcelains.

Upon its return, the owners of the *Empress* sold their trade goods and turned a profit of about 25%—not nearly what they hoped for.

Despite this low return on a very high risk, the example of the *Empress of China* inspired imitation. Up on the Hudson River, the owners of the sloop, *Experiment*, planned their own trip to China soon thereafter. While the *Experiment* was in Canton in early 1786, four other American vessels came in, all carrying varying amounts of ginseng. The price had dropped considerably and the high fees charged by Chinese officials for small vessels discouraged other sloops like the *Experiment* from making the trip.

Boom and Bust cycle

Throughout the 19th century, tons of American ginseng were collected in the wild, garbled, dried, packaged, and shipped to the Orient. Based on government data, over 31,000,000 pounds were exported from 1790 to 1890. And while the price per pound could vary by 50% from one year to the next during this period depending on supply and demand, the price after 1879 rose steadily as the wild supply dwindled.

Negligible Medical Interest

What makes American ginseng such a fascinating drug is that it was gathered in the wild for nearly 200 years exclusively for export to the other side of the world. Although valued moderately by Native Americans, they quickly traded all they could find for white man's goods. They made no effort to keep any for medicine.

And what about American physicians? What did they think? Early medical botanists like Benjamin Smith Barton and Jacob Bigelow were surprised that a root so esteemed by the Chinese could be so inert. At best it might be mildly soothing. Bigelow compared its taste and qualities to liquorice. He stated that ginseng was "principally sold by our druggists as a masticatory, many people having acquired a habitual fondness for chewing it." Bigelow's comment about chewing ginseng was copied by Wood and Bache in the first edition of the *United States Dispensatory* in 1833. Aside from adding references to the isolation of proximate principles in future editions, the USD kept in the chewing comment until 1943. A few years later, ginseng finally disappeared from the book.

Almost all orthodox medical writers of 19th-century America agreed—ginseng was at most a mild demulcent or mild stimulant. And they implied strongly that the Chinese were deluding themselves to think otherwise. (Only gradually did medical botanists and

pharmacognocists come to differentiate between *Panax ginseng* and *Panax quinquefolium*.) Ginseng did sneak briefly into the *U. S. Pharmacopoeia*, probably because of its role in commerce and its acceptance in sectarian circles.

Non-orthodox or sectarian physicians in the United States accepted American ginseng but without a great deal of enthusiasm. As a drug plant scattered across most of the eastern half of North America, ginseng appealed to pharmaco-botanical groups like the Thomsonians and the eclectics. Thomson recommended that a strong decoction be made of the pulverized root with a dose of one teaspoonful as a tonic nervine. The eclectics used a tincture of ginseng, mainly as a treatment for indigestion. A Lloyd Brothers publication described a Lloyd Specific of *Panax* for use in "nervous dyspepsia and for exhaustion of the nervous system."

USP 1870 2nd list

Ginseng did get official status on the secondary list of the USP of 1870. Ironically, the *United States Dispensatory* of 1877, edited by pharmacopoeial authorities George B. Wood and H. C. Wood, refers to its official status but also says that ginseng is not used medicinally in United States! In other texts of the era, American ginseng root was described in detail because it often appeared as an accidental adulterant of other woodland wild roots such as goldenseal or

snakeroot.

Of course, as with any native drug of repute, ginseng was mentioned as an ingredient in patent medicines. But because of its great export value, I can pretty well guarantee that almost no ginseng actually made its way into any American patent medicine.

Thus, American ginseng as a medicine had minimal influence on therapeutics, but as a commodity, it helped open the American frontier. It provided a source of added income to those eaking out a living in the great Eastern forest, and its cultivation eventually made it more generally available for export.

American Botanical Council Ginseng Evaluation Program

"Ginseng comprises one of the largest sales categories of commercial herbal products in North America. For the past 25 years numerous advanced ginseng products have been sold in tea, capsule, tablet and extract forms. Consumers purchase ginseng in its various forms because they seek the presumed health benefits of the fabled root. . . . ABC [American Botanical Council] initiated, in 1993, a comprehensive study of commercial ginseng products sold throughout North America: the Ginseng Evaluation Program (GEP). . . . Through GEP, ABC seeks to set a standard for future studies, increase consumer confidence in properly labeled brands, and increase awareness and responsibility on the part of the manufacturers of natural products."

More information can be found on this topic on the ABC web page: http://www.herbalgram.org/browse.php/ginseng_eval

Cowen Lecture Announced

The Rho Chi Honor Society, The American Institute of the History of Pharmacy, and Dean John L. Colaizzi of the Ernest Mario School of Pharmacy of Rutgers, The State University of New Jersey cordially invite you to attend the Fourteenth Annual David L. Cowen Lecture in the History of Pharmacy.

This year's speaker is **Dr. William Helfand**—historian, pharmacist, and chemical engineer—who will be speaking on "How I Learned about History from Pharmacy Cartoons." The lecture will be held on Wednesday, 13 November 2002 at 4:30 p.m. in Room 111 of the Science and Engineering Resource Center (SERC) on Rutgers Busch Campus, Piscataway, New Jersey 08854-8020.

Dr. Helfand has received the Edward Kremers Award and the Urdang Medal from the American Institute of the History of Pharmacy, the Pepys Medal from the Ephemera Society (London), and the Schelenz Plaque from the International Society for the History of Pharmacy. He is author of *The Picture of Health* and *Quack, Quack, Quack*, and co-author of *Pharmacy: An Illustrated History*. Phone (732) 445-2675 ext. 605 for more information. Please visit www.rutgers.edu for directions to campus.

Throop Pharmacy Museum

by Lee Anna Obos

THE Throop Pharmacy Museum is an authentic restoration of the Throop Drugstore, which was located in Schoharie, New York, approximately forty miles southwest of Albany. The store was established in 1800 by Jabez W. Throop and remained in the same location, managed by the Throop family, for the next 136 years. Besides being the store's proprietor, Jabez was the town's first postmaster, a bank president, an educator and a founder of the town's public water system. In 1845 Jabez was succeeded at the store by his son, Origen B. Throop. Origen died in a train accident leaving the store to his son, Charles M. Throop, who operated it from 1883 to 1930. The last proprietor of the store was Charles W. Grant, a grandson, who managed the pharmacy from 1930 to 1936.

In 1938 the Albany College of Pharmacy acquired the Throop Drugstore as a historical museum. It was moved to the College in its entirety where it was carefully reconstructed using the original shelves, counters and drawers.



The Renovation

In 1998 the College initiated plans to enlarge and relocate the Throop Pharmacy Museum. Working with architects and the New York State Museum, the final design was approved in January 2000. The Museum was painstakingly dismantled; the contents were cataloged and placed in storage. The following fall, construction began on the exterior façade of the new Museum.

By January 2001, the inte-

rior of the Museum had become the focus of construction. Attention was given to every detail to maintain the integrity of the original structure. A tin ceiling, paint colors, tile, and wood floors appropriate to the period, were researched and selected. Skilled craftsmen exactly replicated new millwork from the older pieces.

The new Museum boasts many improvements including better lighting and climate control. It has been relocated to a more prominent site, enlarged, and divided into two rooms. The Historic Throop Drugstore is located in the larger room and a manufacturing pharmacy has been created in the smaller, adjacent room. Additional windows have been built into the exterior façade of the building, doubling the viewing areas into the Museum.

On 22 September 2001, the Albany College of Pharmacy held a ribbon-cutting ceremony to officially reopen the Museum.



Throop Pharmacy Museum

Special guests included retired Army Colonel William Throop, the great-great-grandson of the original owner of the Throop Drugstore, who traveled from Austin, Texas, to participate in the ceremony.

The New Throop Pharmacy Museum

Visiting the newly reconstructed Throop Pharmacy Museum provides an opportunity to visualize the life of a rural pharmacist during the 1800s. The original shelves, counters, and wooden drawers that stored the herbs and crude drugs are in place. The reconstruction includes a tin ceiling, wooden floor, as well as period lighting and millwork. Advertising signs adorn the walls, showglobes are featured in the windows and spittoons are located at each end of the main counter. The Museum's extensive collection of apothecary bottles and jars is grouped by era on the shelves. Balances, mortars and pestles, pill machines, cachet machines, grinders for crude drugs, prescription books, and cork presses are displayed on the counters.

The Manufacturing Museum

The manufacturing section is set up to replicate a small mid-nineteenth-century laboratory with a tile floor and period lab benches. This room features the tools a pharmacist would use to produce larger quantities of medications. These items include large percolators, mortars and pestles, balances, suppository machines, and a brass sieve collection. Also on display are several extensive collections of bottles, jars and tins produced by the major drug companies in the late nineteenth and early twentieth centuries.

Museum Activities

The College is actively involved in promoting awareness of the Museum to the community:



Manufacturing Museum

- An exhibit was created for the Albany International Airport, which highlights the history of the Throop Drugstore and the practice of pharmacy in the United States during the 19th century. A series of posters and display cases feature collections from the Museum.
- The Museum is an active participant in the annual Albany History Day hosting a booth to display pharmacy artifacts, answer questions and demonstrate pill-rolling techniques.
- The Museum worked with and loaned several pharmacy artifacts to the Albany County Historical Association to create an exhibit titled "Let Us Be Patient, Medical Developments in 19th-century Albany."
- Guided tours of the Museum, compounding workshops and slide shows are given on request to interested groups.

For further information visit our webpage at www.acp.edu/throop or contact the Albany College of Pharmacy at 518-445-7200.

Historical Images of the Drug Market

by William H. Helfand

THE New York Quinine and Chemical Works Ltd. illustrated examples of their major products in an insert published in several pharmaceutical journals in 1896. The advertisement pictured not only raw materials that had been imported in bulk—coca leaves, raw opium, and cinchona bark—but also the alkaloids that were prepared from them and available for sale. At the top of the illustration are various sized packages of cocaine hydrochloride, morphine sulfate, and quinine sulfate. The company became part of the S. B. Penick Co. in the 1940s, and by the 1990s only morphine sulfate remained in the firm's catalog. The advertisement is of more than routine interest be-

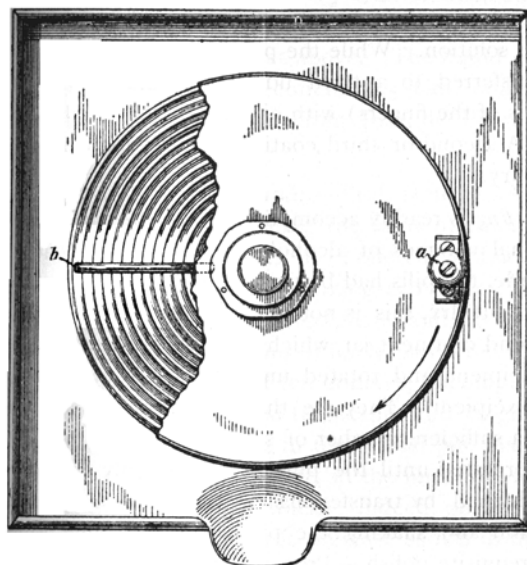


cause it illustrates the manner in which raw materials were received from their country of origin, probably Latin America for coca leaves and cinchona bark, and the Near East for opium. While the opium was shipped in wooden crates, the other two items arrived in New York in crude burlap. (Size of advertisement, 7 3/4 x 10 3/4 inches. Original in W. H. Helfand Collection.)

Take a Look at Our Re-designed Website

The AIHP website (www.aihp.org) was re-designed along with other web pages at the University of Wisconsin School of Pharmacy. The goal was to make the designs uniform and accessible. We hope that the new design will give us the opportunity to add some new items to the site. Let us know how you like it; send us ideas for things you would like to see included.

What Is It?



See page 13 for the answer.

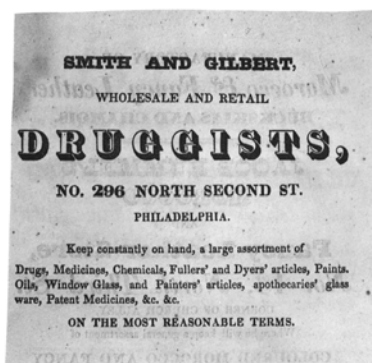
Industrial Origins and Pharmacy

by David L. Cowen

THE pharmaceutical industry developed, variously, out of the chemical industry, out of general entrepreneurship, out of medical practice, and, as to be expected, out of the pharmacy shop. In London the Worshipful Society of Apothecaries established a joint stock company in 1672 that operated a chemical laboratory with great success. In France, in 1775, the famous pharmacist Antoine Baumé ran an enterprise that offered 2,400 preparations for sale.

However, the leap from the apothecary shop to the industrial house was largely a nineteenth-century development. Early in the century, French pharmacists Pierre-Joseph Pelletier and Joseph Caventou, pioneers in alkaloidal research, realized that the new drugs could economically be produced on a large scale. In 1821, Heinrich Emanuel Merck turned his family "Engel-Apotheke" (which had been established in Darmstadt, Germany, in 1668) into E. Merck AG of Darmstadt, and began to manufacture morphine and other alkaloids in bulk. In 1830 the Philadelphia druggist, John K. Smith, founded what was to become Smith, Kline and French Labo-

ratories. In 1845 two Baltimore pharmacists Louis Dohme and Alpheus Phineas Sharp established Sharp and Dohme. In 1851 Ernst Schering turned his



Advertisement for Smith & Gilbert in 1835 Philadelphia directory.

"Grüne Apotheke" in Berlin into Schering AG. The firm established by pharmacist William R. Warner in Philadelphia became one of the constituents of Warner-Lambert in 1856. Eli Lilly, trained as a pharmacist and owner of a pharmacy for a short time, founded the Eli Lilly Company in Indianapolis in 1876. And in London, far from the Philadelphia College of Pharmacy where they had been trained, Silas M. Burroughs and Henry S. Wellcome established

the Burroughs Wellcome Company in 1880. If it can be said that the pharmaceutical industry has taken over the production and compounding of medicinals from the pharmacist, it can be said that in some measure this was the industry's heritage.



Silas Burroughs

Who are they now?

by Elaine C. Stroud

What happened to the names of those early pharmacists when companies merged, expanded, or were bought out? The pharmaceutical industry family tree has many intertwined branches, and some dead ends. What follows is a list of some of the name changes for a number of companies whose antecedents were pharmacies.

MERCK

E. Merck was the pharmacy acquired by Jacob Merck in 1668. In 1827 the Merck Company was established to conduct large scale production of plant-derived chemicals. The US subsidiary was founded in 1887, from which **Merck & Co.** emerged as an independent US company after WWI.

Merck & Co. was founded in 1891 in the U.S. by George Merck, in partnership with Theodore Weicker. Until WWI, the company was a branch office of the family firm of E Merck, Darmstadt, Germany, a supplier of fine chemicals to the pharmaceutical and other industries. George Merck's son, George W. Merck succeeded his father as president in 1925 and established the research division in 1933

SMITH, KLINE & FRENCH

John K. Smith was a Philadelphia druggist who opened **Smith & Gilbert** drug house along with his brother-in-law, John Gilbert, in 1830.

John Gilbert withdrew in 1836 and the business continued as **John K. Smith & Company, Druggists.**

John Smith died and George K. Smith became a leader in wholesaling (1845): **George K. Smith & Co.** supplied quinine and other products to U.S. troops in 1846, in the war against Mexico. George K. Smith died in 1864; George Y.

Shoemaker entered the business with Ephriam K. Smith and the name changed to **Smith & Schoemaker.**

Mahlon N. Kline (George K. Smith's nephew) entered the business as bookkeeper in 1865.

Ephriam K. Smith stepped aside (1867), leaving Mahlon K. Smith as general manager.

George Shoemaker left in 1870, and the company became known as **Mahlon K. Smith & Company.** Mahlon N. Kline became a partner along with Washington J. Sellers.

In 1875 the name changed to **Smith, Kline & Company.**

Smith & Kline absorbed French, Richard & Co. (1891), to form **Smith, Kline & French Company,** reorganized as **Smith Kline & French Laboratories** in 1929, with **Smith Kline & French, Inc.,** as a subsidiary.

The name became **SmithKline Corporation** (1973), with Smith Kline & French Laboratories as the name of the pharmaceutical division.

The merger of SmithKline with Beckman Instruments (1982) formed **SmithKline Beckman Corporation.**

SmithKline Beecham created (1989) from the merger of SmithKline Beckman Corp. of US and Beecham group of UK.

SmithKline Beecham acquired Sterling (over-the-counter pharmaceutical unit) (1994).

The merger of Glaxo Wellcome and SmithKline Beecham (2000) produced **GlaxoSmithKline.**

BURROUGHS WELLCOME

Silas Burroughs and Henry Wellcome formed **Burroughs Wellcome Co.** (1880).

Glaxo merged with Burroughs Wellcome to form **Glaxo Wellcome** (1995).

SHARP & DOHME

The name **Sharp & Dohme** referred to Alpheus Phineas Sharp's apothecary and the senior clerk Louis Dohme (1860). With a new building the firm ventured into mass production (1865). Sharp retired and his interest was bought out by Louis and Charles Dohme (1885). Sharp & Dohme was incorporated for the first time in 1893 in New Jersey.

Sharp and Dohme purchased Mulford (1929) and was reincorporated in the state of Maryland

Merck acquired Sharp and Dohme through merger (1953), forming **Merck Sharp and Dohme.**

SCHERING

Schering Corporation was established as the American subsidiary of the German enterprise to sell bulk chemicals and package pharmaceuticals (1929).

Schering-Plough formed (1971) by a merger of Schering Corp. (research-based pharmaceutical co.) and Plough Inc. (manufacturers of consumer products).

WARNER LAMBERT

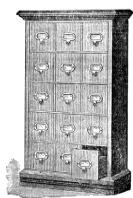
Lambert Pharmaceutical Company founded to market Listerine antiseptic (1881).

Wm R. Warner founded (1886).

Warner and Lambert merged (1955), forming **Warner Lambert.**

Warner Lambert acquired Parke-Davis (which was founded in 1866 by Hervey C. Parke and George S. Davis as Parke, Davis and Company) in 1970.

Warner-Lambert and Wellcome agreed to form **Warner-Wellcome Consumer Health Products** (1993).



COLLECTOR'S CORNER

WANTED: Philatelic items (U.S. and worldwide) related to pharmacy, drugs or medicinal plants. Interested in a wide range of philatelic items including postage stamps, advertising stamps, envelopes, postmarks/cancellations, philatelic literature relating to pharmacy. Contact Jack Chen, 7854 Calmcrest Drive, Downey, CA 90240; (909) 469-5602 or via email jackchen@msn.com.

WANTED: Surgical related items from the 18th and 19th century. Instruments, books, etchings, photos and anything of interest. Contact Dr. Alan Koslow at koslow@mchsi.com or (515) 267-1821.

FOR SALE: Pharmacy Museum Memorabilia, late 18th Century through mid 20th Century. Includes 20-gallon Red Wing crock used at Stricker's Drug Store (Latrobe, PA), soda fountain (David Stricker created the Banana Split), and a pestle used on the Peary Expedition when the North Pole was discovered. Elegant fixtures (1850) from a Scotland pharmacy. \$95,000 or a reasonable offer. Will sell memorabilia and fixtures separately but memorabilia must go first. Jacob L. Grimm, 209 S. Market St., Ligonier, PA 15658 (724) 238-6893; e-mail grimm209@helicon.net

FOR SALE: One hundred year old historical pharmacy documents containing historical signatures. A Doctor In Pharmacy certificate issued to Ephraim Shaw Tyler in 1902 and signed by Joseph P. Remington and Henry Kraemer and others and issued election issued to Ephraim Shaw Tyler by The Alumni Association of the Philadelphia College of Pharmacy in 1902. Both are well framed. Charles

R. Weiss at (330)633-4342 or CWEISS6@juno.com.

FOR SALE: Own a piece of the financial history of the drug, chemical, pharmaceutical and health care companies. Stock/Bond certificates (canceled) are both history and an artform. Most priced under \$7.00 each. Send SASE for list. Interested in buying similar items. Wayne Segal, Box 181, Runnemede, NJ 08078. e-mail WaynePharm@aol.com

GOOD HEALTH TO ALL FROM REXALL! I collect anything made for The Rexall Store. Especially want early consumer products and pharmacy items manufactured by the United Drug Company (1903-46, Boston). Also Rexall AD-VANTAGES magazines, calendars, almanacs, photos, and other franchise and advertising materials. United Drug brands: Puretest, Firstaid, Elkay, Kantleek, Jonteel, Liggett's, Fenway, Harmony (cosmetics), Electrex (appliances), Old Colony (inks), Klenzo, etc. What have you? Frank Sternad, P.O. Box 560, Fulton, CA 95439; (707) 546-3106, e-mail fasternad@iscweb.com

WANTED: Apothecary jars, mortars & pestles and pharmacy memorabilia including advertising cards, displays, cabinets, etc. Please call (602) 443-9358, fax (602) 443-0185 or write Edward Saksenhaus, 8430 E. Appaloosa Tr., Scottsdale, AZ 85258.

FOR SALE: Apothecary Antiques including drug jars, apothecary bottles, manufacturing tools, medical instruments including leech jar and various dental items; books dealing with the above subjects available, catalogues issued. Always buying similar items

or collections. John S. Gimesh, MD., 202 Stedman St., Fayetteville, NC 28305; (910) 484-2219.

WANTED: Show globes, fancy apothecary bottles, porcelain jars, trade catalogs, window pieces, patent medicines, and advertising. Mart James, 487 Oakridge Rd., Dyersburg, TN 38024; (901) 286-2025; e-mail: kjames@usit.net

WANTED: Books & journals on Pharmacy (pre-1920), Pharmacognosy, Herbal/Botanic Medicine, Eclectic & Thomsonian Medicine, Phytochemistry, & Ethnobotany. I will purchase one title or entire libraries. David Winston, Herbalist & Alchemist Books, P.O. Box 553, Broadway, NJ 08808, (908) 835-0822, fax: (908) 835-0824, e-mail: dwherbal@nac.net

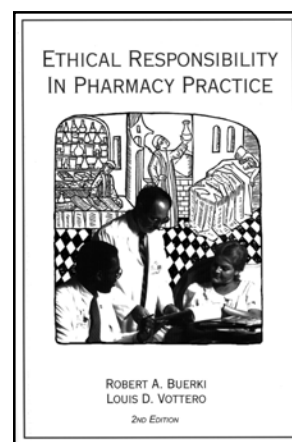
THE SNAKE-OIL SYNDROME, by A. Walker Bingham; 196 pages oversized, more than 500 illustrations, 60 pages in full color. An in-depth reference work on patent medicine advertising in the context of efficacy, and the selling images used. Cross-indexed by subject and product names, with notes, bibliography, and list of public collections. Hardcover, \$44.00 postpaid from the Christopher Publishing House, 24 Roackland Street, Hanover, MA 12339.

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The AIHP brings together those who wish to buy, sell, or trade artifacts or books related to the history of pharmacy. Free classified advertising is available to members (\$5.00 a line to non-members). Send copy to Apothecary's Cabinet, AIHP, 777 Highland Ave, Madison, WI 53705, or NOTES@aihp.org.

New Edition of Ethics Textbook Now Available

The second edition of *Ethical Responsibility in Pharmacy Practice*, by Robert A. Buerki and Louis D. Vottero is now available for purchase. The authors have added more case studies with full commentaries, developed a glossary of pertinent terms, and included current issues of ethical concern. You can order your copy today for \$25 postpaid (contact AIHP, 777 Highland Ave., Madison, WI 53705; 608-231-1205; books@aihpa.org).



The cover of the Second Edition of Ethical Responsibility in Pharmacy Practice depicts the triad of pharmaceutical care: pharmacist, physician, and patient.

AIHP Student Membership

Students can join the American Institute of the History of Pharmacy at the special rate of \$20, instead of the regular \$50. Even though the rates are reduced, the benefits are the same:

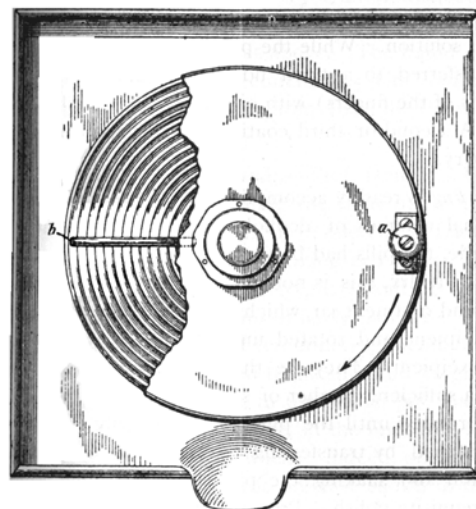
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- 40% discount on materials in our publications catalog--some of which are books used in pharmacy courses
- the benefits of understanding the long and respected history of your profession

Join today by sending a check to: AIHP, 777 Highland Ave., Madison, WI 53705, or calling to place a credit card order (608)262-5378. Don't forget to include your shipping address and year of graduation.

What is it?

In 1905, the Proceedings of the American Pharmaceutical Association, announced the invention of a new machine for the making of pills. Unfortunately for the inventor, this dosage form was in swift decline being supplanted by mass-produced compressed tablets.

"Jacob Swidker has devised [a new] pill machine. . . . It consists of a wooden frame or tray with raised edges and a lip for the convenient removal of the finished pills, which are formed by the machine, consisting of a metal disc provided with concentric grooves and a revolving lid, correspondingly grooved. The pill mass having been rolled into a pipe of the required diameter and length is placed on the disc as shown at b, and by turning the adjusted lid, by means of the knob a, is divided and rolled into



pills. . . . The pills are perfectly spherical, and do not require subsequent rounding, as is usually necessary when they are made on the older form of pill machines."

Drachms & Scruples

Terms according to the Encyclopedia of Pharmaceutical Technology, Dekker, 2001*

Cucufa: Cucufa is a cap, dusted on the inside with medicinal powder, which is applied to the head to strengthen the brain.

Dragées: Dragées are candied or preserved roots and fruits described by the Arab Najm ad-dyn Mahmoud in the eight century and reintroduced in the eighteenth century by the famous French pharmacist Moise Charas. By the middle of the nineteenth century, the term was extended to include a type of sugar-coated pill formed by repeatedly shaking slightly moistened, tiny 6-mg (1/10 grain) sugar granules (or nonpareils) in a basin of finely pow-

dered drug mixed with sugar. After a sufficient number of layers had been built up, the dragées would receive a final coating of sugar or copal and tolu balsam, a painstaking process described by Ernest Agnew in the *American Journal of Pharmacy* (1870).

Draughts: Draughts are liquid medicines usually prepared to be taken in a single dose or "draught." Draughts are also known as potions.

Spasmadraps: Pieces of linen or other cloth dipped in or spread with a medicinal plaster, popularized in

1514 by Gionvanni da Vigo (1460-1525), physician to Pope Julius II. From the Latin *spasma* meaning "healing powder" and the French *drap* meaning "cloth." Also known as sparadraps or cerecloths.

*Robert A. Buerki and Gregory J. Higby, "History of Dosage Forms and Basic Preparations," *Encyclopedia of Pharmaceutical Technology*, Dekker, 2001.

Grants for Visiting Research in the History of Pharmacy

Assistance for short-term historical research related to the history of pharmacy, including the history of drugs, at the University of Wisconsin-Madison is available periodically. Historians, pharmacists, and other scholars working in the field (of any nationality) may apply for the next available Sonnedecker Grant for Visiting Research in the History of Pharmacy. The program provides assistance for travel, maintaining temporary residence in Madison, and meeting research expenses associated with utilizing the collection.

A brochure is available on request that describes the pharmaco-historical collections, which have been developed in Madison during more than a century by the University of Wisconsin-Madison, the State Historical Society of Wisconsin, and the American Institute of the History of Pharmacy. Printed sources emphasize pharmaceutical literature of Western Europe

and the United States of America, from the Renaissance to the present day. Manuscript sources represent mainly American pharmacy, from the late nineteenth century to the present day. These resources are reinforced by collections of comparable importance in the history of medicine and history of science.

At least \$2000 becomes available annually to defray part of the expenses of a recipient, for whatever period of residence is appropriate. Grants are made throughout the year on the basis of the merit of previous historical work and on the appropriateness of historical resources on the University of Wisconsin campus to the research proposed.

For further information contact: Professor Gregory J. Higby, 777 Highland Ave., Madison, WI 53705, phone (608)262-5378.



A Backward Glance at American Pharmacy

EDITED BY GREG HIGBY

100 Years Ago

A pharmacist from Scotland visiting the United States made these remarks: "I had great pleasure in meeting a number of typical pharmacists in your larger cities, some of these apparently carrying on highly successful businesses; but I cannot say I was impressed with the conditions that obtained in the rank and file of drug stores. The hours, generally speaking, are exceeding long, and the predominance of the cigar and soda fountain trade was rather depressing. The legend 'cut-rate drug store' was also painfully frequent, and, on the whole, I came to the conclusion that while a retail drug store might be a good paying business the conditions under which it is carried on leave something to be desired in America." (*American Druggist*, September 1902, p. 113.)

75 Years Ago

"What is probably the first conviction in Virginia under what is known as the 'ginseng' act has been reported by . . . the commission of game and inland fisheries. Ginseng grows wild in the mountains of Virginia. Its roots bring \$15 a pound in New York, from which the available supply is shipped to China. . . . [I]n the mountains of Virginia, most of the killing of wild turkeys out of season is done by ginseng diggers, who camp in the mountains and live off of wild game while digging for the roots which bring such fabulous prices. Accordingly, the commission instructed its wardens to keep a watch on the ginseng diggers and, as a result, one of them was recently arrested. . . . He was convicted of violating the game law and of digging ginseng in the summer. The statute against summer digging of ginseng is an old one, but for many years it has been dormant. It was enacted because the destruction of the ginseng plant before it has time to drop its seed means its ultimate extinction." (*Pharmaceutical Era*, September 1927, p. 260.)

50 Years Ago

"As the 1952 political campaigns drew closer to a showdown, socialized medicine once again assumed the limelight as a major issue. In a formal statement on the subject, Republican candidate Dwight Eisenhower said he is 'opposed to a federally operated and controlled system of medical care' of the type advocated by the [Truman] Administration because it would 'wreck the system' which provides adequate medical care to the great majority of the American people. . . . On the very next day after Gen. Eisenhower made his statement, President Truman . . . revived his appeal for a national health insurance program. . . . In challenging the GOP candidate's recommendations for providing adequate medical care, Mr. Truman declared: 'the fact that the best medical care costs so much today is not anybody's fault. It is simply because we have found how to do so much for the people who are ill that, if we do all of it, it takes a lot of time and requires a lot of equipment, personnel and expensive drugs. Nobody is to blame, but these costs have to be met somehow if we want to reap the blessings of medical research.'" (*American Druggist*, September 29, 1952, p. 19.)

25 Years Ago

"Arkansas Pharmacists Association is the new name of the organization formerly known as Arkansas Pharmaceutical Association. The change was provided for in a new constitution adopted by the group. Earlier this year, Michigan pharmacists did the same thing—replacing 'pharmaceutical' in the name of their organization with 'pharmacists.' In both cases the reason was the same — to make sure that legislators, public officials, the news media and the public officials, the new media and the public know that the association represents pharmacists only, and not the pharmaceutical industry. Several other states are thinking of making similar changes. . . . In the case of Arkansas, the association is going back to its origins. When it was founded in 1882, it was known as the Arkansas Association of Pharmacists." (*American Druggist*, August 1997, p. 63.)

CALL FOR PAPERS

AIHP Section on Contributed Papers
at the APhA Annual Meeting
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•Titles and 200-word abstracts for 15-minute podium presentation must be received by **October 1, 2002**. With your abstract please include name, affiliation, address, phone number, and email address if available.

•Send abstracts to Michael Montagne, AIHP Section Chair Contributed Papers:
email: mmontagne@mcp.edu
phone: 617-732-2995
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•For additional information, contact the AIHP office (608-262-5378);
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