Welcome Message from the Chair, History of Pharmacy Special Interest Group

Welcome Readers!

It has been quite a year since our last History of Pharmacy SIG newsletter, one which we will all reflect upon with historical implications in the future. As your time permits, take a journey over to AIHP’s https://aihp.org/collections/aihp-covid19-project. There, you can reflect and record your experiences with COVID-19 for our future historical reference. Just as many have looked back to the 1918-19 influenza pandemic, someday clinicians and laypeople alike will wonder what perspectives we had with COVID-19.

I’d like to take a brief moment to introduce myself. I’m Megan R. Undeberg, PharmD, BCACP and Clinical Associate Professor at Washington State University College of Pharmacy and Pharmaceutical Sciences in Spokane, WA. While my main role is educating future pharmacists through the didactic curriculum as well as their clinical APPE experiences in acute care, as with many of you, I hold dear to my heart a love of history—particularly that of the pharmacist during WWII Resistance activities and the role of the Japanese-American pharmacist in the US concentration camps. Our practice of pharmacy provides a wealth of exploration and application!

In my year with you as your AACP History of Pharmacy SIG chair, I encourage each of you to explore your area of interest in pharmacy history. We invite all of you to submit articles, briefs, book reviews, pictures, or ways you incorporate the history of pharmacy in your teaching and practice. As we look forward to our future in 2021, we all will be joining the Philadelphia College of Pharmacy in their bicentennial celebration as the first college of pharmacy in our nation. 2021 will be a memorable year for our profession.

In the spirit of historical adventure, enjoy reading this edition of our newsletter.

Sincerely,

-Megan Undeberg,
SIG Chair
Welcome  We are pleased to present the 9th issue of the History of Pharmacy SIG Newsletter Pharmacy Chronicles: Past, Present, and Future. This is our second issue for this year, so at least not everything is bad in 2020. This also represents our fourth year of presenting peer-reviewed articles, “upping our game,” so to speak. That said we must give a shout-out to our peer reviewers who respond quickly and with constructive comments to the authors, resulting in a higher quality publication. We always welcome volunteers to be peer reviewers; we appreciate your efforts and the burden is light.

Of course, the peer-reviewers must have something to read, so we also gratefully acknowledge the authors who have taken the time to provide insightful and interesting stories that help to clear away some of the obscurity of our professional history. To further that endeavor, we encourage our readers to enlist the aid of your students to add to our pages. Their perspective can often provide a fresh look onto the past.

-continued on page 3
ANNOUNCEMENTS

Message from the Editor, continued from page 2

and benefit both student and teacher.

Speaking of obscure, the articles appearing in this issue bring to our attention an accomplished pharmacist, better known in the culinary arts, a true pharmacist hero in the harness of times and a slice of pharmacy in cinema, starring Will Rogers as the intrepid pharmacist, among other articles.

We welcome a short, newsy piece of trivia or a full article for peer review (1500-2000 words). Pictures are always good! To volunteer, contribute or just have a question, please feel free to contact either Cathy Taglieri or Bernie Olin. We are always happy to hear from you.

—Bernie Olin, Pharm.D.,
Auburn University,
Harrison School of Pharmacy

WHAT IS IT?
Submitted by Mike Hegen

What is the item shown below, what time period was it used and what was the intended purpose of it? The answer is on page 4.

American Institute of the History of Pharmacy Update

AIHP has had a very productive year! AIHP hosted the New Social History of Pharmacy and Pharmaceuticals Festival in September. The Festival was a five day free online streaming event. Participants and presenters came from all around the world. Videos of all 21 Festival sessions and 38 Festival presentations are now available to watch on the AIHP website or the AIHP YouTube channel. (https://aihp.org/new-social-history-festival/)

In May and June, AIHP and the University of Wisconsin-Madison School of Pharmacy sponsored the inaugural Edward Kremers Seminar in the History of Pharmacy & Drugs, a series of five online weekly lectures on topics related to the history of pharmacy and pharmaceuticals.

In April 2020, AIHP also launched its Covid-19 Historical Documentation Project, which seeks to document pharmacy stories and experiences during the COVID-19 global pandemic for the benefit of future historians and scholars. See the full details on the next page (page 4) or follow this link. https://aihp.org/collections/aihp-covid19-project/

This summer, AIHP reached a new partnership agreement with the University of Wisconsin Press for the publication of the Institute's academic journal. In conjunction with the move to UW Press, AIHP will change the name of its journal to History of Pharmacy and Pharmaceuticals (HoPP) from Pharmacy in History. We anticipate that the first issue under the HoPP title (vol. 63, no. 1) will be published by UW Press in the early summer of 2021.

The Institute recently posted a call for papers for a special issue of HoPP that will investigate the "Colonial History of Plant-Based Pharmaceuticals": https://aihp.org/hopp-journal/efp-colonial-histories/.

During 2020, the Institute also undertook a comprehensive review of its awards program. The review produced a series of recommendations, approved in June by the Institute's Board of Directors, that will change protocols for awarding the George Urdang Medal, the Edward Kremers Award, and the AIHP Glenn Sonnedecker Prize. We believe the changes, which take effect in 2021, will enhance the prestige of the awards and better advance the mission of the Institute.

Now is an exciting time in the History of Pharmacy, and AIHP welcomes new and returning members. Please consider joining or renewing your membership now. https://aihp.org/join-support/individual/
In the late 1800's to early 1900's it was thought that sterilizing the air with formaldehyde gas would help treat infections and prevent others from contracting them. These devices were promoted for “sanitizing” sick rooms, homes, schools, theaters, and other public spaces. They were thought to prevent the spread of scarlet fever, diphtheria, smallpox, measles, whooping cough, and other respiratory diseases common at the time.

The instructions for this pictured formaldehyde generator, Dr. Geo Leininger's, were to close all doors and windows, spread out all clothing and bedding, etc. so that the gas can reach and penetrate everything. It worked via heating the solidified formaldehyde compound in the top cup via the included alcohol burner below. This device is estimated to be from 1910 and had a labeled price of $1.00 – this is equivalent to approximately $26 today.

It was noted on the package that the formaldehyde gas was entirely harmless, though it may irritate the eyes – we now know that formaldehyde gas exposure is not as harmless as once thought! This is an interesting example of how health care providers thought they were practicing cutting-edge medicine based on the science known at the time.

My favorite quote from the box that seems timely: “The hardest problem which health boards have to solve is how to prevent the spread of infectious diseases. No matter what caution they may adopt in improving the sanitary conditions of the town or city, unless the people themselves put forth some effort the work of the health departments is greatly handicapped.”

The instructions for this pictured formaldehyde generator, Dr. Geo Leininger’s, were to close all doors and windows, spread out all clothing and bedding, etc. so that the gas can reach and penetrate everything. It worked via heating the solidified formaldehyde compound in the top cup via the included alcohol burner below. This device is estimated to be from 1910 and had a labeled price of $1.00 – this is equivalent to approximately $26 today.

It was noted on the package that the formaldehyde gas was entirely harmless, though it may irritate the eyes – we now know that formaldehyde gas exposure is not as harmless as once thought! This is an interesting example of how health care providers thought they were practicing cutting-edge medicine based on the science known at the time.

My favorite quote from the box that seems timely: “The hardest problem which health boards have to solve is how to prevent the spread of infectious diseases. No matter what caution they may adopt in improving the sanitary conditions of the town or city, unless the people themselves put forth some effort the work of the health departments is greatly handicapped.”

The 100th Anniversary of the Discovery of Insulin

Next year is the 100th anniversary of the discovery of insulin. A number of events are planned throughout the year to celebrate. One opportunity is a free scientific symposium from the University of Toronto consisting of pre-recorded lectures starting in January and live presentations on April 15-16th, 2021. Use this link (http://insulin100.com/) to access more information or register. In keeping with the spirit of Banting and Best, who sold the American patents for insulin to the University of Toronto for $1.00 each, the symposium materials will be complimentary.

AIHP wants to document your History...relating to COVID-19

The American Institute of the History of Pharmacy (AIHP) wants to record and preserve the history that pharmacist are making dealing with the COVID-19 pandemic for the benefit of future historians.

AIHP has launched the AIHP COVID-19 Pandemic Pharmacy Historical Documentation Project to record, document, and preserve the COVID-19-related stories and firsthand experiences of pharmacists. We have established a special portal on AIHP’s website -- available at this link -- through which pharmacists and others can contribute materials for our archives.

Contributions may take the form of written or video journals, or audio recordings, photos, videos, artifacts and documents that memorialize stories and experiences. Our website portal will allow participants to immediately record their COVID-19 experiences in a textbox and/or upload up to three digital items for preservation in AIHP archives.

We are especially interested in having pharmacists address such questions as:

- How did the public health emergency affect your work as a pharmacist?
- How did pharmaceutical treatment options change and evolve over the course of the crisis?
- How did social distancing or quarantine affect pharmacy practice, pharmacy education, or pharmacy customers?
- What were the most difficult challenges you confronted?

Please share this announcement with your colleagues and share on social media.
In 1900, the first Hook’s Drug Store was opened by John A. Hook, a pharmacist, and was located on South East Street in Indianapolis. Interestingly, this drug store was located approximately one block south of where Eli Lilly and Company established its corporate headquarters in the early 1880s and where it continues to be located today. By the 1950s, there were 50 Hook’s Drug Stores located primarily throughout the state of Indiana and at its peak, there were over 300. In 1994, after 94 years of existence, the Hook’s Drug Store name was retired due to buyouts and consolidations.

Since opening in 1966, the Hook’s Drug Store Museum has been located at the Indiana State Fairgrounds in a bungalow-style building located directly inside the main entrance. The building was constructed on the fairgrounds in 1927 as the Board of Health Building and later, it was selected for the museum because it was approximately the same layout and size as the original Hook’s Drug Store. Of note, the Indiana State Fair is held for 17 days each August at the State Fairgrounds located on 250 acres along East 38th Street in Indianapolis. Since its opening in 1892, the fairgrounds have hosted more than 115 State Fairs with current yearly attendance averaging more than 880,000 individuals.

The Hook’s Drug Store Museum originally opened for the 1966 Indiana State Fair where it was described in the official program as “an authentic 19th century drug store reassembled especially for the observance of Indiana’s Sesquicentennial”. The museum, originally intended to be temporary, proved so successful that it was recognized as the most significant corporate contribution to Indiana’s celebration of 150 years of statehood by the Governor, and has remained in operation since. The legacy of Hook’s Drug Stores continues with this museum and gives added meaning for many citizens of Indiana.

The authentic look and feel of the 19th century drug store including fixtures, products, and advertising makes this museum unique. For example, the stunning ash and walnut pharmacy cabinets (circa 1850) with reverse glass advertising panels line the walls (floor to ceiling) of the recreated pharmacy. These cabinets were purchased from the Grigsby family in Cambridge City, Indiana for use in the museum. The museum houses an impressive collection of nearly three thousand individual artifacts. Many of the items have been donated by pharmacists across the State who wish to celebrate and preserve the history of the profession.

The cabinets lining the walls of the second room of the museum are from the original Hook’s Drug Store. In this space, visitors can purchase old time candy, souvenirs, and a limited number of over-the-counter products. In 1971, an authentic (working) ice cream soda fountain was added to the museum. “Offering both nostalgic treats and real drug store products alongside the historic exhibits makes the Hook’s Drug Store Museum very different from every other drug store museum in the world”. Since opening, over three million individuals have visited the museum, with 60,000 added each year during the fair.

Return to page 5
Since 2005, the museum has been operated by the Greenfield (Indiana) Museum Initiative (GMI). The mission of GMI is to “educate the public about the history of medicine and the pharmaceutical profession in order to promote a better understanding of current healthcare issues and advances”.4 Thanks to the GMI staff and volunteers, Hook’s Drug Store Museum Board, the museum’s director of operations, and donations, the museum has achieved a self-sustaining financial stability.

Since 2015, college of pharmacy faculty members and students from Butler University, Manchester University, and Purdue University have offered blood pressure screenings in the museum. In addition, an activity book for children and youth, entitled “Proud to be an Indiana Pharmacist”, developed by Board members, is distributed with a pack of colored pencils to interested visitors.

It is hoped that readers visit the Indiana State Fair and the Hook’s Drug Store Museum. During the heat of August, when the state fair is in full swing, this is an educational and historic place to cool down and enjoy a soda fountain treat. Those interested may follow the Hook’s Drug Store Museum on Facebook and Instagram.

—Jane E. Krase, BS Pharm, MS, RPh
Clinical Associate Professor, Purdue College of Pharmacy

References:

Photos courtesy of Robert Hunt, Member, Hook’s Drug Store Museum Board.
Have you ever wondered about the spiciness of that pepper you were eating? Perhaps you have pondered the spiciness of the different peppers while browsing the produce section of a grocery store? Have you ever eaten something so spicy it took several alleviants such as water, milk, or ice cream to ease the heat? On January 22, 1865 in Bridgeport, Connecticut, at the end of the Civil War, the American pharmaceutical chemist Wilbur Lincoln Scoville was born to yet the cause of spicy foods and satisfy our curiosity. Scoville is probably best known for devising the Scoville Organoleptic Test, although he earned many other notable awards!

In Scoville’s early life, he worked in a drug store owned by E. Toucey in 1887. This experience played a major role in influencing Scoville’s decision to pursue a career in the pharmacy profession. Motivated by his work experience, Scoville moved to Boston to attend the Massachusetts College of Pharmacy (MCP) and graduated in 1889 with a Ph.G. (Graduate of Pharmacy). He then passed the Massachusetts pharmacy licensing exam with ease which was difficult for many students to achieve during this era. Following graduation, Scoville was chosen by his professor and mentor at MCP, Edgar L. Patch to be the first pharmaceutical chemist of his business (E.L. Patch Pharmaceutical Company). Scoville took on responsibilities such as developing formulations of products, testing raw materials for quality and identity, and testing the final purity of those products. The products produced at E.L. Patch & Co. consisted mostly of standard drugs (standardized acids, reagents, assayed drugs, and elixirs) and fountain products that were provided to the land markets of New England. Compound Lithia effervescent tablets was one of the company’s biggest sellers, in addition to flavored drinks, and seasonal products such as cough drops and other specialized lozenges such as “Stop That Hack Lozenges” and “slippery elm lozenges”. Scoville also obtained a part-time job in academia as a professor at his alma mater MCP. He taught there from 1892 until 1904 on studies of Pharmacy, Chemistry, Botany, and Materia Medica. Having obtained a pharmacy license, a full-time job with E.L. Patch, and working in academia, Scoville became eligible to join the American Pharmaceutical Association (APhA) in 1891. In the same year, he also started a family marrying Cora B. Upham in Wollaston, Massachusetts in September; the couple expanded their family by having two daughters, Amy Augusta and Ruth Upham.

Scoville authored the textbook The Art of Compounding, a very useful and highly regarded pharmaceutical reference that was published in 1895 with eight additional editions, the last edition in 1957. Scoville also published other books such as a re-written version of Harry Beckwith’s book in 1909, How to Get Registered: Home Study for Pharmaceutical Students and another book titled Extracts and Perfumes. This last publication was a useful reference that contained hundreds of different formulations. In addition to teaching, Scoville was involved in journalism, becoming the editor of the New England Druggist in 1894. In 1897, he accepted a position as the pharmacy editor of The Spatula, a journal turned magazine of the Massachusetts College of Pharmacy and resigned as editor of the New England Druggist. The Spatula was an informative publication that featured articles about new drug products, notable druggists, drug laws, and a small amount of gossip.

Scoville worked on prestigious projects that prepared him to become an advocate for the development of pharmacy standards. Scoville served on the Revision Committee of the United States Pharmacopeia from the years 1900 to 1940 and was also on the Committee of Revision of the National Formulary for the 3rd through 6th editions. Both positions were very prestigious in the time. Scoville was instrumental in developing standards for the pharmacy profession and for pharmacy education and his publications were critical in educating future pharmacists. During Scoville’s employment at Parke Davis, America’s largest drug maker during this time, he primarily focused on academic research in the field of chemistry and other pharmaceutical research studies and tasks.

In 1912, Scoville embarked on his widely known invention of the Scoville Organoleptic Test by publishing “A Note on Capsicums” in the first issue of the Journal of the American Pharmaceutical Association. It began as an effort to better measure the effects of capsicums which were advocated for myriad uses, and improve the therapeutic effect of Heet® liniment for pain that was manufactured at Parke-Davis where Scoville became the chief chemist by the 1920s. The active ingredient of Heet liniment was capsaicin which is also the main chemical that gives chili peppers their spici-

-continued on page 12
Tadeusz Pankiewicz: A Pharmacy Hero

By Jennah Badger, Gabriella Salerno and Dr. Bob Cisneros

When we think about the heroes and pioneers in Pharmacy history, the name Tadeusz Pankiewicz may not readily come to mind. Tadeusz Pankiewicz was a Catholic pharmacist born in 1908 in Krakow, Poland.1 Pankiewicz’s father was a pharmacist and in 1933, Tadeusz inherited the Under the Eagle Pharmacy from his father. The pharmacy was in an area of Krakow that would soon become the “Krakow Ghetto.” When the Nazi occupation of Krakow took place, this unlikely hero became an important ally for the Jews within the ghetto.1

German occupation of Poland began in September 1939. In early 1941, the Germans determined that a “Jewish living quarter” was to be created within Krakow, resulting in all Krakow Jews moving from their homes or apartments into this cramped living area. The deadline for the move was March 20, 1941 and all non-Jews were ordered to vacate the ghetto by this deadline as well. Those who remained placed their own lives at risk.1

Tadeusz Pankiewicz became one of the only “Aryans” (non-Jewish) permitted to stay in the ghetto and operate his pharmacy, in part due to his insistence and the fact that he was living in the duty room of the pharmacy.3

When March 20, 1941 arrived, an estimated 18,000 Jewish residents were packed into the cramped space of the ghetto.4 All attempted to live a “normal life” while Nazi soldiers patrolled and observed their every move. Residents of the ghetto were prohibited from exiting without permission, yet even with approval to leave for their normal jobs, often were not allowed back in and could be executed or subject to beatings at any time. Those who were deemed “criminals,” which could include academics and other professionals, were deported to labor/concentration camps such as Plaszow or Auschwitz.3

The occupation brought forth many changes to Krakow in terms of both infrastructure and lifestyle of the residents. Walls, which were built to encircle the ghetto, were seen to resemble “Jewish cemetery monuments.” This, along with the required Star of David armband, contributed to the depression and despair felt by the Jewish Poles. During this sad time, there was a single location where residents of the ghetto could try and forget about the evilness around them- the Under the Eagle Pharmacy. Pankiewicz said that “the pharmacy was... a sort of embassy, a diplomatic station, representing the world, singularly free, within the walled and imprisoned city.”3(p.11)

As the war progressed, the Gestapo (the Nazi secret police) became increasingly strict. From the creation of the ghetto in 1941 to its emancipation, more and more Polish Jews were “deported” from the ghetto and sent away to labor camps or concentration camps. Under the Eagle Pharmacy had to adapt working hours to Nazi raids and deportations. At the war’s worst point, the pharmacy could only be open to the public for one to two hours a day due to the Gestapo brutally removing citizens from their homes, creating too dangerous of an environment to remain open. Eventually, with citizens being taken from their homes and transported into camps, there was little service for Pankiewicz to provide, with the ghetto becoming nothing more than a ghost town.

Pankiewicz befriended many of the intellectuals within Krakow and would host them in the pharmacy, often discussing the German occupation.5 He regularly witnessed the brutality of the German officers towards the residents of Krakow. One example is the time he saw a Gestapo officer in a car hit a Polish Jew passing by, and as the injured man came up to the window, the Gestapo officer punched him in the face and drove away, smiling.3 Seeing this inspired Pankiewicz to continue his quest to help the Jews in the Krakow ghetto, at great risk to himself and the three female pharmacy workers who helped him. A secret hiding place in the pharmacy often hid many Jews and facilitated their escape from the ghetto. Medications such as cough medicines were secretly provided to...-

-continued on page 11
A Brief History of Pharmacy Advertising

By Andrew Whitley

Early apothecaries spent much of their time preparing all of their remedies themselves with local ingredients and herbs using techniques passed down from past apothecaries. Beginning in the mid 17th century, however, larger factories began making “patent medicines” that could be made in bulk and distributed throughout the world to their customers. The term “patent medicine” comes from 17th century Victorian England where medicines manufacturers who had favor with the royalty were given the royal endorsement on their products. Almost none of the patent medicines sold in the 19th and 20th century United States had actual patents. This would have required a public disclosure of their ingredients, and most patent medicine manufacturers wanted to keep this a secret. Patent medicines were one of the first industries to utilize mass advertising. Ingredients used in the manufacture of patent medicines were often cheap and well known by early apothecaries. Advertising was a necessity to protect the brand of the patent medicine when early apothecaries would make their own version of patent medicines to sell at a discounted price. This new separation between the early pharmacist and the product that he was selling to his patients, coupled with the rise in patient literacy, gave rise to the dawn of early pharmacy advertising.

Most successful medicines were marketed in print as cures for all ailments, and commonly contained narcotics, even ones marketed for children. Most patent manufacturers realized that despite the literacy of many Victorian-era Americans, the average customer did not understand that when they took these medicines, the good feeling they got was not from them being cured, but from the placebo effect and the cocaine, opioids, or high ethanol concentrations found within their medicines. The result was these large patent medicine manufacturers invested heavily into advertising. A pattern that continues to current day; spending on direct to consumer pharmaceutical advertising (DTCPA) was over $5.5 billion in 2017. The manufacturers used suggestive language to mothers of sick children and published exaggerated patient and physician testimonials. Ayer and Pinkham spent thousands a year on print ads throughout the late 1800s, and their products quickly became staples in the medicine cabinets of early New Englanders.

James Cook Ayer was the wealthiest manufacturer of patent medicines in the late 1800s. Through his first product, Ayer’s Cherry Pectoral, and many other patent medicines, Ayer amassed a fortune of over $20 million and even had the town of Ayer, Massachusetts named after him. The secret behind the unprecedented growth of Ayer’s patent medicine empire was his $140,000 yearly investment into advertising. This money went to artists to generate attractive and funny illustrations. Ayer and Pinkham spent thousands a year on print ads throughout the late 1800s, and their products quickly became staples in the

---

An advertisement for Lydia Pinkham’s

http://www.mum.org/mrspink3.htm

---

continued on page 13
“Handy Andy” is a black and white comedy movie starring Will Rogers as Andrew Yates (“Andy”), a small town pharmacy proprietor, whose social-climbing wife badgers him to sell his pharmacy to a drugstore chain. While this classic film centers around a free-willed, dedicated pharmacist, the movie is a bit extreme in showing how much he cares about his community and how reluctant he is to give up his pharmacy. This Hollywood portrayal of a pharmacist is interesting, since it highlights both the pharmacist as a cornerstone of the community and the expansion of drugstore chains into the community pharmacy arena.

**Movie Summary**

The movie begins with Andy preparing a medication in the back room of his pharmacy, smelling and tasting it before bottling. He does all this while playing cards and talking with his old friend, Doc Burmeister (“Doc”). The friendly conversation between the old pharmacist and physician exposes their thoughts and habits about prescriptions, work-hours and their work ethic. As their talk ends, a deliveryman comes into the pharmacy seeking a community resident; without hesitation, Andy gives the location, directions and best entrance to locate the resident, stunning the deliveryman with his knowledge. Doc states, “Between you and me we practically know everything about everyone in this neighborhood.”

Andy then gives the prescription he made to Doc for his patient, tells him that they do not need to worry about paying, and gives him licorice candy for the customer’s son. As Yates then tries to close the pharmacy, he continues to assist customers: a costumed hunter/fisherman wanting his photographs, and another wanting to buy a single...
Tadeusz Pankiewicz...
Continued from page 8

help ensure that the Jewish Poles (and especially children) would be able to stay quiet when hiding from the Gestapo. Hair dye was provided for disguise to help with escape. Additionally, Pankiewicz would help individuals receive fake identification papers to aid in their leaving the ghetto. He even provided alcohol to the Gestapo who would enter the pharmacy to encourage them to speak more freely about the Nazi plans for the ghetto and future planned raids in order that he could give advanced warnings to ghetto residents. Had the actions of Pankiewicz and his assistants been discovered they could have been executed. They risked their lives when they easily could have looked the other way.

When the war ended, the pharmacy continued to operate, but was eventually closed permanently in 1967, later becoming a museum that can be visited today.6 Several years after the war, Pankiewicz was globally recognized for his heroic actions during the Nazi occupations. Some might say the most touching rewards were the “thank you” letters he received from survivors of the Nazi occupation who he had helped during times of need. An example was a young woman who expressed her gratitude for his efforts after she was left alone following her parents’ deaths during a raid of the ghetto. She was allowed to use the pharmacy as a cut through to an alley behind the building, enabling her to escape the Nazis.3

Yad Vashem (the World Holocaust Remembrance Center) created the “Righteous Among Nations” honor in which the state of Israel recognized non-Jewish rescuers. According to the website, “The Righteous Among the Nations, honored by Yad Vashem, are non-Jews who took great risks to save Jews during the Holocaust. Rescue took many forms and the Righteous came from different nations, religions, and walks of life. What they had in common was that they protected their Jewish neighbors at a time when hostility and indifference prevailed.”7 Due to his efforts, Tadeusz Pankiewicz was awarded the title of “Righteous Among the Nations” in 1983. A database of rescuers who were honored is located on the Yad Vashem website.7 Oskar Schindler was another recipient of this honor. Pankiewicz died in 1993.

Pankiewicz, his pharmacy, and pharmacy helpers are examples of the heart of pharmacy and what we stand for as a profession; without their help many more Jews would have been killed. When people ponder the value of a pharmacy, we should reflect on the “Under the Eagle Pharmacy,” when pharmacy lives were at risk for helping individuals. The ultimate question for all of us is, “What would we have done?” Let us hope that we will always do what is right for our patients and our own profession.

It is said that the pharmacist is the most accessible health care provider. Patients rely on pharmacists and pharmacy staff to be there to help them, whether it’s World War 2 or a global pandemic due to COVID-19. The pharmacy is a constant. Pharmacists today are saving lives through caring, empathy, and providing essential services. Pharmacies give patients a sense of normalcy in ever changing times, just as the Under the Eagle Pharmacy did almost 80 years ago.

—Jennah Badger, and Gabriella Salerno, PharmD, Candidates 2022 and Dr. Bob Cisneros, Associate Professor Emeritus, Campbell University, College of Pharmacy and Health Sciences

References
Both pictures are used with permission. File from the Collection of the Righteous Among the Nations Department, Yad Vashem (M.31.2/File no.)

-continued on page 17
amount of sugar water needed to decrease the concentrations of extracted capsaicinoids of each pepper. This makes the spiciness of the pepper taste become undetectable in three out of the five panelists.6,7 The heat level of the dilution was what gave each pepper its rating, being rated in multiples of 100 Scoville Heat Units (SHU). Scoville Heat Units were measured by the number of times an extract mixture had to be diluted with equal parts of sugar water until the spiciness and heat could no longer be detected or tasted; this caused an increase in SHU.

During Scoville’s research, he used a variety of peppers such as the bell pepper, jalapeno pepper, habanero pepper, ghost pepper, and California Reaper to develop his rating scale. Results from these peppers were applied to Scoville’s rating scale for SHU. For example, bell peppers would have a rating of 0 (zero) SHU meaning the pepper lacked piquancy or spiciness, whereas habanero peppers had a value of 300,000 SHU. Pure capsaicin was rated at 16 million SHU.7 Scoville was also able to identify the world’s spiciest pepper, the Carolina Reaper. The pepper has 1.5 million SHU and has a peak of 2.2 million SHU.7 Scoville’s method does not appear to have been protected by patents, but it has largely been supplanted by more precise, automated methods such as HPLC although it is still used in some industries.3

At the age of 69 years, Scoville retired from Parke Davis in 1934. Scoville received several accolades from his peers and colleagues as being a man who was preeminent, a pioneer, and leader in the field of pharmacy. In 1922, Scoville was awarded the Elbert Prize by the American Pharmaceutical Association now known as the American Pharmacists Association. The Elbert Prize recognizes an author(s) who presents or produces the best report of original investigation of a medical substance. In 1929, Scoville was also awarded the Remington Honor Medal. This award is the American Pharmaceutical Association’s top award.1,3 Scoville also received an honorary Doctor of Science in 1929 from Columbia University and honorary degrees from the Philadelphia College of Pharmacy and the University of Michigan College of Pharmacy.3

The Scoville scale continues to be utilized, such as in food and cooking. One important fact is alleviating the hot sensation in your mouth from eating peppers or spicy food by drinking a glass of milk. Scoville was one of the first individuals to suggest in print that milk could be an antidote for the heat of chiles. He stated, “Milk, as ordinarily obtained, is seldom used except as a diluent. In this capacity it serves well for covering the taste of sharp or acrid bodies as tinctures of capsaicin, ginger, and for many salts, chloral, etc.”2 Many brave individuals take the Scoville Challenge by attempting to eat the variety of peppers tested by Wilbur Scoville during the development of his scale for SHU. His scale is also used for several other reasons or playing the memorable, fun, and animated “Chili Pepper KO Ice - Cream Game”.4

At the age of 77, Scoville died in Gainesville, Florida, but his legacy and creations will live on. While the world will remember Wilbur Scoville for his contributions to taste and gastronomy the pharmacy world should recognize and remember him for his extraordinary and lasting contributions in chemistry, pharmaceutics and pharmacy education.

—Paden Smith, PharmD
Candidate, 2021
and
Bernie R. Olin, Pharm.D.,
Associate Clinical Professor
Auburn University, Harrison
School of Pharmacy

References:

-continued on page 17
A Brief History of Pharmacy Advertising…
Continued from page 9

Manac was distributed for free throughout New England in various languages. Ayer’s advertising included lots of claims including “Every hour of delay in the effective treatment of such maladies is dangerous and may be fatal”, and troves of uneducated Victorian era mothers bought into his claims. Ayer’s Cherry pectoral was advertised as a cure for “coughs, colds, asthma, croup, laryngitis, bronchitis, whooping cough and consumption” and when given promptly, it was “The most reliable medicine that can be procured … its effects are magical and multitudes are annually preserved from serious illness by its timely and faithful use”. The cherry pectoral was made from opium derivatives and according to Ayer’s 1906 almanac contained: 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), alcohol, glycerine and water as solvents. According to a December 1975 New York Times articles, purchasers of heroin would typically purchase 2 grain bags, so the 1-6 grains of Heroin contained within Ayer’s Pectoral were more than likely inducing euphoria in the patients, especially in children given this medication, even if given only a teaspoon or two. Heroin would roughly would act as an antitussive in the patients that ingest Ayer’s pectoral, but their supposed ability to cure “colds, asthma, croup, laryngitis, bronchitis, whooping cough and consumption” and not solely make the patient euphoric enough to forget about their ailment while it naturally improved, is not substantiated. While Ayer was developing and selling his products in Lowell, Massachusetts, a few towns over in Lynn, Massachusetts, Lydia E. Pinkham was advertising and making her new Vegetable compound.

Lydia E. Pinkham’s Vegetable Compound was made and marketed in the Eastern U.S. starting in 1875. Pinkham begin by preparing different mixtures of roots native to North America and the original recipe contained: “black cohosh, life root, unicorn root, pleurisy root, and fenugreek seed”. Pinkham’s original recipe touted that the ingredients “unicorn root gave energy to the uterus and lessened the likelihood of miscarriage, pleurisy root cured a prolapsed uterus, and Black cohosh treated symptoms of menopause including hot flashes.” All of these ingredients together generated “sedative and anti-inflammatory properties … to treat menstrual cramping”. Upon consumption, however, a woman would quickly notice the recipe’s 20% alcohol content, claimed to be used to preserve the herbs, but would contribute significantly to the “sedative” properties of the elixir. Advertised as a cure for many female ailments, Pinkham’s compound played heavily to the women of the U.S. whose medical needs were often left untreated or undertreated by the all-male physician population. Pinkham also included pamphlets in her products and paid for ads that asked her readers to submit confidential inquiries about women’s health. The submitted questions were guaranteed to never be read by a man, and Pinkham encouraged women to ask questions that may be uncomfortable. Pinkham’s inquiries and dedication to helping women understand more about their bodies reflected well on her company, and hopefully furthered understanding of female ailments. Pinkham’s presence as someone who empowered women through her products, no doubt boosted sales of her Vegetable compound.

On June 29th, 1906, the Wiley Act (also known as the Pure Food and Drug Act) was signed by President Theodore Roosevelt to crack down on unsafe and unsanitary practices in the food and patent medicine industries. Early patent medicines were now required to be made in a safe manner and labeled accurately. Farcical and heavily exaggerated claims were no longer be-
A Brief History of Pharmacy Advertising...
Continued from page 13

ing accepted by the newly formed Food and Drug Administration (FDA). Patent medicines were still available mostly over the counter until the 1951 Durham-Humphrey Amendment to the 1938 Food, Drug, and Cosmetic Act. This new legislation defined what drugs were going to be available by prescription, meant to crack down on the abuse of narcotic containing patent medicines. The new prescribing requirements restricted access to narcotic containing products such as Ayer’s Cherry Pectoral and combined with the newly formed FDA’s ability to inspect factories and ensure proper labeling, the type of medications that were being made and the way they were advertised changed greatly. Products like Lydia E. Pinkham’s Vegetable compound, however, remained on the market until 1968 when Lydia Pinkham’s Medicine Company was sold to Cooper Laboratories. However, even Pinkham’s Vegetable compound dropped its alcohol content from 20% to 15% as a result of the 1906 Act and she retracted claims of her vegetable compound to treat “prolapsed uterus, uterine ulcers, or general female weaknesses.”

The landscape of how products are advertised in the United States has changed a lot in the past century, and today the United States and New Zealand are the only countries that permit DTCPA that includes product claims. Canada which allows DTCPA that contains either the product or the indications of a product but not both. In 1981, Merck debuted the first direct-to-consumer print advertisement, promoting its pneumonia vaccine. Two years later, the first broadcast television commercial for a prescription medication aired on May 19, 1983 for Boots Pharmaceuticals’ Rufen, a prescription-only version of Ibuprofen. Within 48 hours, however, the United States Government asked the company to take it down due to all of the requests from other pharmaceutical companies seeking to advertise their products on television. By 1989, guidelines for DTCPA had been put in place and television, radio, and print ads for various medications began to appear in the lives of Americans and the spending on DTCPA was estimated at $12 million, increasing to $340 million in 1995. In 1997 the FDA issued its first final guidance for DTCPA. In 1998 spending tripled to $1.1 billion, and in 1999 the FDA released a guidance that redefined “adequate provision” of risks and benefits to include reference to a toll-free number or Web site. The pharmacy industry responded quickly with DTCPA spending doubling to over $2.24 billion.

Benefits of DTCPA are that the advertisements inform the public about available treatments and help fuel better discussion with their physicians. According to a 2004 survey performed by the FDA looking at the effects and views on DTCPA by physicians, 88% of patients asking for a specific drug had the condition that the drug treated. However, opponents of DTCPA remark that the info contained in DTCPA is often biased and misleading and that DTCPA raises the cost of prescribing without evidence of actual health benefits. Looking at the 2004 FDA survey sent to physicians, only 40% believed their patients understood the possible risks of the medication, 65% believed DTCPA confused their patients about the relative risks and benefits of prescription drugs, and 75% believed that DTCPA caused patients to think that the drug works better than it actually did. Since 2004, the view of medical associations including the American Medical Association (AMA) and the American Society of Health System Pharmacists (ASHP) has shifted to opposition to DTCPA. On November 17th, 2015, AMA called for the ban of direct to consumer advertising of prescription drugs and medical devices. A few months later, during the 2016 annual ASHP Summer meeting, the delegates updated their policy “To advocate that Congress ban direct-to-consumer advertising for prescription drugs and medication-containing devices”. The latest development in DTCPA legislation was the passage in July 2019 of a mandate that pharmacy advertisements include pricing information if the prescription costs more than $35 for 30 days of treatment.

The pharmacy field has experienced tremendous legislative changes in the past two hundred years and as a result, has adapted their advertising practices accordingly. From making completely untrue and exaggerated claims in print ads, to questionable claims en masse through television mediums and even today on the internet at the bottom of many webpages, it will be very interesting to see the direction pharmacy advertising goes in the future of the United States.

—Andrew Whitley, PharmD
Candidate 2022
MCPHS University,

References

-continued on page 17
Pharmacy Through the Lens of Hollywood II: "Handy Andy"  
Continued from page 10

stock is not the same as cash. The
Andy is resistant, stating the Norcross
between Andy and Charles. Ernestine
quires about the conversation be-
the bedroom, when Ernestine in-
scene starts in the kitchen and ends in
should be his daughter's.
Howard. Andy feels the decision
suitor from the higher social class,
that their daughter should choose the
daughter's choice of men, telling him
Meanwhile back in the house, Ernes-
tard and Lloyd for Janice's attentions.
obvious rivalry exists between How-
next week to take her for a drive. An
Ernestine's preferred suitor for Janice,
the Norcrosses, whose son Howard,
proves. Upon their arrival, they meet
son, Lloyd, of whom Ernestine disap-
女兒 arrives home with Doc's
badgering continues into the bed-
room; with Ernestine saying why not
get some fun out of life while he still
can. Even while lying in their sepa-
rate twin beds, Ernestine continues to
plead with him to listen to reason.
Finally, Andy gets up, goes to the tele-
phone, and calls Charles, despite it
being the middle of the night, saying
to Ernestine, “I'm going to sell that
store, so we can go to sleep.”

Having sold his pharmacy to the Norcross chain, Andy spends his last day in his store, as the chain's minions change the store's look and fixtures around him. He clearly is saddened to leave his customers behind, and continues to provide the service to which they were accustomed. The long day ends with a visit from Doc with a prescrip-
tion for happiness, contentment, and
fun, done three times daily. Andy’s
last glance back shows a worker
scratching his name off the sign
above the front entrance.

Attempting to stay active during
his retirement, Andy tried raising
pigeons, growing flowers, and fixing
things around the house. Out of bore-
dom and a desire to continue what he
loves, Andy constructed a small phar-
macy in his library, which upset his
wife. In addition, Andy’s constant
presence and various distractions
around the house lead to the house-
maid quitting. So, Ernestine gets the
idea from a lady friend to interest
Andy in golf, buying him the gear
and an outfit, and setting him up with
lessons. Unfortunately, it backfires on
Ernestine when Andy uses his lessons
to distract Howard from pursuing
Janice, allowing her to go out with
Lloyd. Quitting golf during his first
lesson, Andy moves his “pharmacy”
into his basement and starts filling
prescriptions for his old friend, Doc.

When an invitation to attend Mardi Gras in New Orleans arrives from Ernestine's friend, she immediately asks Andy to go. As usual, Andy says no. Later, Janice convinces her father to go, so she can have more time with Lloyd, and avoid
both her mother and Harold. In New
Orleans, Andy finds Mardi Gras par-
ties and parades boring. The contro-
versy comes to a boil when Ernestine
receives an invitation to a costume
ball, which Andy refuses to attend.
So, Ernestine decides to attend with
Pierre Martel, a local Frenchman with
devious motives.

Meanwhile, Andy walks into a local apothecary to assuage his de-
pression, and meets the druggist, Henri Duval, and his female friend,
Fleurette. Their shared pharmacy
ownership experience leads to instant
friendship and a night out on the
town, during which Fleurette and
Henri propose a way for Andy to re-
gain his pharmacy. They tell him that
he should fulfill his wife’s wishes of
playing, but that he should “play”
hard until she begs him to return to
work. So, they all proceed to the cos-
tume ball, with Andy dressed as Tar-
zan.

At the ball, Andy dances a wild dance with Fleurette, upstaging Pierre and Ernestine when they were to have the dance floor. Pierre confronts Andy, resulting in
Andy giving out a Tarzan yell and
hitting Pierre on the head with his
rubber club. After spending the night
in jail, Ernestine bails Andy out and
tries to take him home. However,
Andy insists that he would like to
continue having fun, as she previously
requested. Only when his pharmacist
friend Henri arrives, is Ernestine able
to convince Andy to leave.

On the train ride home, Ern-
estine reads in a newspaper article that
the Norcross chain and its stock has
collapsed. At the same time, Andy
receives a telegram saying their daugh-
ter has married. While hiding the
news from each other and having an
awkward, misdirected discussion, they
inform each other of their mutual
news. Ernestine blames herself for
everything and pleads for forgiveness,
believing they were penniless and
their daughter had married Harold

-continued on page 16
Pharmacy Through the Lens of Hollywood II: “Handy Andy”
Continued from page 15

Norcross. She vowed to help Andy start over again, rekindling their love for one another.4

—David M. Baker, B.S. Pharm., M.B.A., J.D. Associate Professor of Pharmacy Administration. Western New England University College of Pharmacy & Health Science and Hameed O. Bello, PharmD., M.B.A., & M.S. Law 2021 Candidate

References:


Tadeusz Pankiewicz...
Continued from page 11


A Brief History of Pharmacy Advertising... Continued from page 14

References:


W I l b u r  S c o v i l l e
-continued from page 12

References:

2. DeWitt D. Who was Wilbur Scoville? Brother Bru Bru’s [Internet], [cited 2018 Sept 16]. Available from: https://brobrubru.squarespace.com/who-was-wilbur-scoville


The academic year (2020 – 2021) marks the thirteenth year since the History of Pharmacy Special Interest Group (SIG) was formalized as an AACP SIG.

As an open academic forum, the SIG strives to facilitate the exchange of ideas and innovation among pharmacy faculty across disciplines; to serve broadly as an accurate information resource for teaching, learning, and scholarship pertaining to the evolution and history of the pharmacy profession; to develop and maintain historical collections of artifacts and school or college museums; and to ensure the lessons, the message, and the legacy of the pharmacy profession is preserved to educate future generations of pharmacy students.

The SIG’s mission rests on the premise that the history and legacy of the pharmacy profession will always be relevant to all pharmacy practice areas, including current and future scopes of practice. The History of Pharmacy SIG is relevant to you too! Join the History of Pharmacy SIG!!

Vaccine Advertisements through history