

## Copyright

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### About the Author

Darcy S. O'Neil was born in Sarnia, Ontario and spent many of those years living near the beach. A cold Canadian beach, but a beach none-the-less. After high school, the decision of a career choice was whittled down to chemistry or the culinary arts. Chemistry was the winner. At the time it seemed logical that laboratory skills were more transferable to the kitchen than cooking skills to the lab. Four years later, he received his diploma in chemistry.

After a six year stint working in a world class oil and gas research facility, the time for change arrived, via a downsizing notice. After a couple of false starts in the pharmaceutical and information technology worlds, the possibility of going to chef school returned. During a period of quiet contemplation, and a few drinks, he was whacked with the epiphany stick and the marriage of chemistry and bartending dawned upon him.

With a little research into the world of mixology, and a completely stocked home bar, that rivalled many restaurants, and irritated his wife with all the clutter, the fusion of science and art began. As he rifled through the classic drinks and modern interpretations—plus the occasional vile concoction—the chemistry skills started to refine the art. A whole new world of experimental flavours opened up in a way that satisfied his experimental curiosity and his culinary cravings. A bartender was born.

With this new found knowledge in hand, Darcy set about looking for a place to apply these skills. His optimism was soon dashed when he discovered that very few, if any, bars shared his passion for fine drinks. Darcy bided his time, learned the ropes, while trying to make the best of a poor situation. At every turn Darcy would try to make a poor cocktail slightly better, and eventually people started to notice. The bar managers lacked Darcy's vision, even though customers enjoyed the improvements. This would lead to a string of resignations, and on a couple of occasions, outright termination. Darcy tenaciously stuck to his principals, even in the face of pending unemployment.

To find a place of acceptance, Darcy turned to the internet and started writing about tasteful cocktail on his site, Art of Drink. It started slowly with a few people taking notice. Then more people latched on when he transcribed a copy of Jerry Thomas' Bartenders Guide from the 1800's, and placed it on his website. From there it has grown to over 3,000 unique readers per day.

As Darcy jumped from bar to bar, looking for a place where he could utilize his skills, and satiate his passion, he decided to take a part-time lab job, in a research centre at the University of Western Ontario. This was partially to ease the blow of future terminations, since his wife was never fond of those, and partially because he missed the scientific geekery.

Currently, Darcy works part-time as a research technologist at the University of Western Ontario and bartends occasionally. He can also be found writing about original cocktail creations and other drink related topics at www.artofdrink.com



Mocktail, virgin cocktail, and Preggatini<sup>®</sup> are all terms for non-alcoholic beverages, and all are drinks men would never order. Mocktail screams out for taunting, guys don't like to be classified as a virgin in any endeavour and a guy ordering a Preggatini was obviously coerced by his pregnant wife.

Whether we like it or not, society has picked some regretful names for non-alcoholic beverages. However, there is one non-intoxicating drink that is an American institution. Millions of people fondly remember ordering this drink and having it served to them by a Jerk. No one chastises a person for ordering and enjoying one. The American soda was the alternative for abstainers. Unfortunately, Americans have passively allowed their unique culinary creation to fade into the past.

Carbonated beverages are a resounding success, with Americans drinking 13 billion gallons (58 billion litres) of soda-pop every year. That's about 3 quarts (3 L) per person, per week. Americans account for about ½ of the worldwide consumption. Considering that the US is only 5% of the world's population, it's safe to say Americans love their soda.

Drinks are one area of cuisine where Americans have been exceptionally creative. The cocktail and soda fountain are both American inventions. They reached their

peak in periods where choice, quality and service were the battlegrounds. Today, brand, speed and price are considered premiums and quality is an afterthought. The drive for efficiency, power and the almighty buck have decimated that creativity and turned carbonated beverages into industrial products of commerce served from a cold faceless machine.

The soda fountain was once an equivalent to the local saloon and the comparisons are obvious. Prior to prohibition, both cocktails and sodas were creative, well balanced drinks but evolved over the years to become synthetic mixtures laced with gads of sugar. Cocktails are only starting to recover after decades of abuse. The soda has shown no such signs of returning to its prior glory. The creative history of the soda fountain is quickly fading away.

There are meagre attempts at resurrecting the soda fountain, but the original recipes for drinks, like phosphates and lactarts, have been concealed in old, forgotten texts. Without this knowledge, imitative ingredients have been substituted into the recipes, but bear little resemblance to the original. The fountains of today are poor forgeries of their historical inspiration.

In 1919, there were 126,000 soda fountains in the United States alone. Today there are probably less than 100, and very few, if any, are as grand as they were at the peak of their popularity.

The only modern equivalent to the classic soda is the so-called "Italian soda". Browsing the Internet creates the belief that the combination of carbonated water and flavour syrup originated with two Italian immigrants, Rinaldo and Ezilda Torre. The story says they began making flavour syrups—with recipes from their hometown of Lucca, Italy—in their San Francisco grocery store in 1925. They mixed the syrups with soda and introduced America to the classic "Italian soda".

This is *definitely* not the case and is actually an instance of revisionist history created by the San Francisco syrup company Torani, whose founders just happened to be Rinaldo and Ezilda Torre. There is no doubt they created syrups, but it is apparent that the Torre's usurped the soda concept from the flourishing American soda fountain. Flavoured soda water is clearly an American invention.

Older generations may remember the last incarnations of the soda fountain, and occasionally some look to resuscitate their favourite drink to briefly reconnect

with the past. However, information is limited on how these drinks were made. Most of the recipes were created by pharmacists and kept within the trade. Unlike cooking and cocktails, many of the recipes used pharmaceutical extracts, chemicals and tinctures whose access was limited to the profession.

Other issues, such as the system of measurements, caused confusion. Instead of ounces, grams and millilitres pharmacists would use scruples, grains, and minims written in a cabalistic apothecary script. Many of the recipes were kept secret, for competitive purposes, while others were published in pharmaceutical journals. These journals were rarely available to the public and, if they were, they came with a significant price tag and a jumble of cryptic terms. They did not want everyone to know their trade secrets—that was bad for profits.

Secrets could not be kept forever and many of the recipes were eventually made public, but a large number of them remained locked in the pharmacist's guides and books. Many of these pharmacy manuals saw limited distribution and can be hard to find, but not impossible. Older universities may have copies of these publications—probably unopened for decades.

One of the earliest soda fountain books available to the public was titled <u>Saxe's</u> <u>Hint's to Soda Water Dispensers</u> (1890). It was written by a man named De Forest Saxe as a recipe guide and soda dispensing manual. Prior to this, most guides on the subject were published by the fountain manufacturing companies. These were more like operating manuals with basic recipes.

Saxe published many of his own recipes and techniques for making drinks, a rare and charitable occurrence at the time. In a way, De Forest Saxe could be compared to pioneering bartender <u>Jerry Thomas</u> for his willingness to publicly document the methods most preferred to keep secret.



De Forest Saxe, author of "Saxe's New Guide, or, Hints to Soda Water Dispensers"



With the disappearance of the soda fountain, and effective market domination by a handful of multinational beverage manufacturers, drinks like lactarts and cherry phosphate vanished, leaving their stories consigned to the dusty old texts of history.

The vision most people have of the soda fountain is limited to the 1950s movie genre. However, the truly interesting history occurs at the turn of the 20<sup>th</sup> century and gives a surprisingly different impression of the soda fountain. It wasn't always the family-friendly drink we see today. In some cases, the local fizz counter was as bad, if not worse, than the neighbourhood ginmill.

To understand how the soda fountain raised the ire of the Temperance League and forced the government to draft drug interdiction laws, we need to look past the movie set constructs and explore the origins of the soda fountain.

## How It All Got Started

Naturally carbonated waters, from volcanic springs, were well known throughout history and prized for their unique properties. The effervescing nature of the water was an attractive quality, and was thought to be a natural tonic. The problem was that capturing and transporting these mineral waters was costly. Only a few places stocked mineral waters, with pharmacies being the most common.

The stomach soothing nature of these effervescent waters made them a regularly prescribed treatment for dyspepsia or indigestion. The lack of side-effects from a glass of soda water, unlike many other medicines of the time, helped motivate researchers to discover, and recreate, how these gas bubbles dissolved in water.

The foundation for man-made carbonated water starts with Englishman, Joseph Priestley, in 1767. The first discovery was infusing water with carbon dioxide by placing water over a fermenting mash. The carbon dioxide given off by the yeast dissolved in the pure water suspended over top. This would have been very weakly carbonated, but sufficient to realize that it was possible. His research led him to publish the book "*Impregnating Water with Fixed Air*" in 1772.

In 1783, German born Johann Jacob Schweppe used this information to invent a device to create artificially carbonated water. He sold his company in 1799, but his name is still prevalent today as the Schweppes Company.

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Artificially carbonated waters quickly caught the attention of the public. Given the medicinal properties ascribed to mineral water, the idea of being able to recreate mineral waters was compelling. Making these waters available to everyone—by adding formulated salt mixtures that mimicked mineral waters from around the world—was desirable for businessmen and physicians alike. These artificial waters eventually transformed into flavoured soda when businesses started adding flavours and sugar to the soda compositions.

Before devices were created to artificially carbonate water, people realized they could duplicate the tingling sensation, though poorly, by combining sodium bicarbonate and tartaric acid in water. This resulted in a glass of fizzy saltwater similar to Alka-Seltzer. To make the drink more palatable, fruit juices and artificial flavours were added. To make the effervescence convenient, the tartaric acid went in the flavouring and the sodium bicarbonate in the water. When the two liquids were combined, it would fizz. This was the precursor to modern soda-pop.

At the turn of the 19th century, chemists continued experimenting with methods of impregnating carbon dioxide gas in water. It still hadn't achieved a level of efficiency that made wide distribution possible. However, it was becoming fashionable to have soda water at home.

Improvements continued until Charles Plinth invented the soda syphon in 1813. This syphon allowed portions of water to be dispensed, while retaining carbonation in the unused portion. This was a major advancement over corked bottles.

These improvements helped, but the syphon bottles still had to be filled at a manufacturing facility, delivered and the empty syphons then collected for refilling. This method was tedious and inefficient, but better than glass bottles.

Aside from yeast or mixing sodium bicarbonate with an acid in a sealed bottle, there was no cheap and efficient method for the end user to artificially carbonate water. This problem wouldn't be solved until 1832 when a British born inventor, named John Mathews, created an apparatus to artificially carbonate water in quantities suitable for a drugstore or street vendor.

Mathews' fountain designs were spartan but functional. They consisted of a lead lined chamber where sulphuric acid and powdered marble (calcium carbonate) were mixed to produce carbon dioxide. The generated gas was purified and then



sent to a tank of cool water. The tank was manually sloshed around, for thirty minutes or more, to help the gas dissolve, and then piped to the dispensing tap. These units were sold as bottling systems and fountains. Used as a fountain it was revolutionary in terms of efficiency.

It is estimated that New York City had over 670 soda draught fountains in 1836.

With the inefficiencies of the syphon bottle removed and self-contained units being sold at a lower price, the barriers to entry were now reasonable. The improved soda water capacity also helped increase the number of sodas being served from a couple dozen per day to a couple hundred and, in some cases, thousands. The lower start-up costs spurred the growth of soda fountains across America, giving it legs and booming sales.

It wasn't uncommon, in the early years, for soda fountains to explode. The process for making carbonated water was not particularly safe. The biggest threat was when the pressure vessel holding the carbonated water failed. When this happened, metal, glass and people were sent flying about the store.

These explosions were caused by improper mixing of the sulphuric acid with powdered calcium carbonate. Because this was the least desirable job, it usually fell upon "green hand" employees to do the mixing. When done properly the components would be mixed at a controlled rate, producing a steady stream of carbon dioxide. When mixed by an inept neophyte, excess gas would be produced eventually rupturing the tank.

There were also cases of rookie soda jerks falling into the vats of sulphuric acid. Or in other cases they would improperly mix the acid and carbonate resulting in the mixture "bumping". This would contaminate the carbonated water with sulphuric acid. A cool glass of sulphuric acid was never a refreshing beverage.

Over time the systems became safer, and in larger cities CO<sub>2</sub> cylinders were being supplied by enterprising companies, so fountains no longer needed to produce it.

John Mathews made the soda fountain efficient, but G.D. Dows made it an eye pleasing apparatus. With the combination of functionality and style, it was now a vital investment for every pharmacy.



Halliday Drug Store - Salt Lake City, Utah circa 1905

[View High Resolution Image]



Zaharako's Soda Fountain - Columbus, Indiana circa 1933

View High Resolution Image





People's Drug Store - Washington, D.C. circa 1921

View High Resolution Image

This new breed of fountain was decked out in marble, onyx and brass with large mirrors and elegant decorative elements. The best fountains had gold trim with Tiffany lamps and Favril glasswork. They were not the kitsch designs of the 1950s diner, with wild colours and over-the-top branding. Classic fountains were more akin to the greatest hotel bars in the world with classy, dignified decor.

By 1875, there was a soda fountain in almost every city across America. It was now becoming part of the American culture. In the peak of summer, sales were reaching 1200 glasses of soda per day. This was a period where soda fountains gained critical mass and started to compete with the local taproom.

The soda fountain started to gain international attention as early as the 1890s, with cities around the world partaking in this new flavoured beverage. The first

European cities to adopt these flavoured seltzers were London and Paris. Even though natural mineral waters were extremely popular in Europe, it was America's lust for sugar that made the combination a success.

The feverish growth of the soda fountain created a highly competitive environment. Not only were pharmacies competing amongst each other, they were vying for customers from the local saloon and confectionary shops. This unbridled rivalry meant that each competitor needed to create the perfect drink, at the lowest possible price, to attract customers.

Public houses commanded the drink business for years, even with significantly higher prices, because of the inebriating effects of alcohol. In an effort to compete, druggists conjure up pharmaceutical concoctions that easily trounced the saloons best offerings. Once these drinks were unleashed on the public, the bracer and pick-me-up would never be the same again.

# Soda Controversy

The rapid growth of the industry wasn't always based on the wholesome image portrayed by pharmacists and temperance zealots. Many of the temperance groups ignorantly promoted soda fountains as the healthful alternative to bars. They wrongly believed that pharmacists and doctors were altruistic and above profiteering. That idealism was short lived. Beneath the marble counter tops, with the gilded gold trim, there were significant problems. These issues caused the soda fountain to suffer the same backlash that saloons received, and for good reason.

The belief that carbonated water was medicinal put it squarely in the hands of the medical profession and their whims. If served straight, naturally carbonated water was a wholesome, hydrating beverage with no downside. It was even helpful at easing an upset stomach. But the medical community of the time decided that wasn't good enough and began using it as a vector for other medicines. At first, they used the sweetened soda water to conceal the taste of bitter drugs like quinine and iron. Then they started to add more exotic substances.

Prior to the *Pure Food & Drug Act* of 1906, almost anything could be used as an ingredient in a drink. This "wild west" scenario meant that many chemicals and drugs were used to make soda, often putting the consumer's health at risk.



Pharmacists, who were actually chemists, had access to a wide array of compounds, and created chemical based products that could mimicked natural flavours. This was done because the natural flavour in fruit tended to degrade quickly or was exceedingly expensive to make in the winter months. Competition was also a factor, and lower prices helped drive business.

The most common adulterated flavours were strawberry, raspberry and pineapple. This was especially prevalent in bottled drinks. These adulterated flavours were called essences and were made from a variety of chemicals. For example, pineapple essence was made from butyric ether, acetic aldehyde, chloroform, amyl butyrate, glycerin and ethanol. This mixture created a flavour very much like pineapple. Many people thought it tasted better than the real thing.

Druggists didn't stop with artificial flavours, they also used soda water as a vehicle for the prescription side of their business. A key reason for this was that medicines in the 19<sup>th</sup> century were provided in liquid form. Pills were not in vogue yet, and pharmacists used standardized liquid extracts and tinctures as a rudimentary dosing system. Since alcohol was a consumable solvent, that readily dissolved many of these organic compounds, pharmacists and patent medicine manufacturers used a good deal of it to make their elixirs, tinctures and extracts. Drinking these medicines straight-up was probably a nasty experience, but diluted with sweetened soda, these patent medicines were probably quite acceptable, even pleasurable. Tonic medicines were well known at the time to contain a significant amount of alcohol. In dry counties it was often the salvation of the drunk.

Pharmacists were well aware of alcohol's intoxicating properties. Many of the elixirs and tonics contained as much alcohol as a shot of whisky. This was popular with both the imbiber and pharmacy. The imbiber could get an alcoholic drink at a fraction of the bar's price because there were no taxes on alcohol-based "medicine".

After alcoholic medicine, the most popular choices were narcotics. These were often called "nervines" and usually contained cocaine, strychnine, cannabis, morphine, opium, heroin, and other neurochemicals. This may sound frightening today, but this was a period in time when tobacco injections, cocaine lozenges, arsenic, and explosives were prescribed by doctors. Morphine was thought to be a *reasonable* medication for a baby with colic.

It was a common practice for a person to call for a "dope" at the soda counter. Dope was a colloquial term, believed to come from the Dutch "doop", meaning sauce. The English word "sauce" was often used to describe an alcoholic drink, but at the soda counter it usually referred to a bracer or pick-me-up style drink .

In the last quarter of the 19th century, people who drank soda habitually were said to have the "soda habit". This was a derogatory term that implied some form of addiction. In most cases it was true—they were unknowingly addicted to the powerful narcotics present in the soda.

Unlike the raucous behaviour of drunks, persons with the "soda habit" were fairly well behaved. It was only after the withdrawal symptoms kicked-in that irritable and irrational behaviour became obvious. A quick fix at the fountain usually did the trick, but a casual one or two sodas daily eventually became a habitual dozen.

One of the reasons for this excess consumption was the quantity of drug contained in a drink. Narcotics like strychnine and morphine were common, but cocaine was the preferred drug of the soda fiend. The most popular drinks contained coca wine, which contributed 5mg to 10mg of cocaine per glass.

Cocaine is a potent stimulant that increases dopamine in the brain, resulting in euphoria and hyperactivity. At the dosage used in a single soda drink it was sufficient to get mildly energized. It's also enough for the body to crave more, almost like the morning coffee (caffeine) fix, but significantly more powerful.

The combination of narcotic stimulants and alcohol synergistically increased the addictive powers. Once hooked, a person with the "soda habit" would be compelled to get their daily fix.

Today, we know these drugs are lethal but at the time they were believed to be harmless. The actions of the drugs seemed beneficial—compared to alcohol which dulled the mind and made a man sloppy and lazy—with the stimulants sharpening the mind and increasing productivity. Cocaine was a true pick-me-up. For that reason, it's not hard to see why the morning cocktail went out of fashion.



## Soda Replaces the Cocktail

The cocktail was the traditional morning bracer for almost a century, but a significant shift happened in the 1880s. The soda fountain was now the place to get a morning pick-me-up and alcohol consumption shifted to later in the day.

The reasons for the shift are theoretical, but the fact that a person could get a drink containing cocaine would be a compelling reason to switch intoxicants.

A single cocaine loaded soda in the morning was a quick brain boosting beverage, but five to six per day—which was more common—could get a person really "jacked up". This most likely led to chronic cases of insomnia. Cocaine withdrawal also causes tremors, nausea and stomach cramps.

The solution to this problem was the cocktail nightcap. Alcohol, being a depressant, would help the soda fiend come down from the cocaine high and ease them into a night of unproductive sleep. The cocktail was also the preferred method for curing gastrointestinal distress, like dyspepsia, making it a logical choice to settle the stomach after a day of cocaine abuse.

The cycling of stimulant drugs in the morning and depressants in the evening was a better fit for the "brain" workers like accountants, politicians and lawyers. Cocaine was a heaven-sent hangover remedy as well. Once trapped in the cycle it would have been extremely difficult to extract oneself from addiction.

The change in the drinking habits was noticed by a number of newspapers, which reported on the decline in bar-room patrons. *The Boston Daily Globe* (July 21, 1885) had an article that almost celebrated the decline of men in saloons. The success is credited to the "*temperance beverages*" that "*robs bar-rooms of a great many customers*". The *Knoxville Journal* (August 21, 1894) reports on the *Passing of the Saloon* where the drink habit change was noted by bartenders. The switch was credited to the maturing or evolution of the American drinker to the more civilized habits of the European imbiber.

The most likely cause was not an evolutionary step, nor the will of man, but the direct result of powerful narcotics being sold at a much lower price than alcohol. These "temperance beverages" were far more powerful than anything at the local saloon. The drunk had now become a druggie.

Price was another factor working against cocktails. In June 1885, the price of a cocktail in New York was 15¢ for a basic drink and 50¢ for the fanciest. A typical soda, like Coca-Cola, could be had for 5¢ or less—cocaine included. The main price difference was tax. Alcohol was taxed heavily whereas sodas were not.

It soon became obvious that soda "narc-tails" were not the answer for teetotallers. But, pharmacists had a solid business model—and university degrees—so bowing to the will of the less educated, sober minority was not a consideration.

With pharmacies earning significant income from the beverage side of their business, and the government complacent about the use of narcotics, a new battle front opened up for the abstainers in their ceaseless, puritanical crusade.

The Temperance League regularly declared war upon soda fountains and the medical fraternity for their evil nostrums and drug laced preparations. Druggists used a wide variety of substances in their sodas, many harmless and many medically effective, but the temperance movement considered anything they didn't understand as evil. Some of them believed that plain soda water was intoxicating.

They went to great lengths to shut down these establishments, including the invocation of long forgotten "Blue Laws" and publishing soda fountain "black lists". These actions were only mildly effective, and it wasn't until the first decade of the  $20^{th}$  century when the government began to regulate the sale of narcotics, that soda fountains became the temperance oasis abstainers once dreamt about.

The 1900s were a tumultuous time for the soda fountain. The *Pure Foods and Drug Act* was implemented in 1906, which restricted the use of many ingredients in soda formulations. This put a serious dent in the pharmacist's business and took away their medical monopoly on many tonic sodas.

After the invocation of the *Pure Food and Drug Act*, the medical community began straightening themselves out. There was a concerted effort between doctors and pharmacists to weed out those who peddled and prescribed all manner of miracle cures. This banished many of the "patent medicines" from the shelves of the pharmacy, along with the alcohol most of them contained. This trimmed the sales of medicinal sodas as it was no longer professional to sell Calisaya cordial as a medicine, since it was more akin to what the local saloon was dispensing.



# Soda Health & Hygiene

As people became aware of the chemical dangers present in a glass of soda, the medical community began pointing out other dangers, like communicable diseases and bacteria contamination. Most people were ignorant of the detrimental health effects of sharing their drinkware with one thousand strangers. Health inspections were non-existent until the 20th century and fountain operators rarely cared.

The cleanliness of early soda fountains would be considered revolting by most people today. The soda syrups were usually made in a dirty basement or barn, where conditions were deplorable. Spillage from syrup bottles created thick layers of bacterial growth medium under the counters. Glasses were typically washed by rinsing them in a bucket of cold water, and then dried with a well soiled cloth. Detergents were rarely used in the 1800s, and the water wasn't changed until—as the *Dallas Morning News* described in 1922—it was "*syrupy*". The glassware in these places was often referred to as "*railway drinking cups*" for obvious reasons.

The best stores used running water. They would plug the sink and allow the water to run continuously into the overflow, ensuring fresh water was used to rinse every glass. This had been advocated for decades, but not everyone had access to a city water supply nor the motivation to invest in proper sinks.

The increased production of bottled soda presented further problems. The bottles were reused as many times as possible, but were rarely given a thorough cleaning. Once used, the bottles were stacked behind the shop for days, being exposed to all manner of contamination and "growth". At best, the bottles may have been rinsed with a cleaning solution, but many times they were just refilled.

It didn't go unrecognized in the communities that the bottles and glassware were not of pristine cleanliness. There was even a movement in the 1910's to abolish the soda glass and pop bottle because of the hygiene issues. It was suggested that paper cups replace all manner of glassware and, as we see today, it happened.

Even the soda jerks were under scrutiny from the health department. In the 1920s it was proposed that all soda jerks should undergo a medical check-up to ensure they were disease free. This idea didn't pass, but the medical officers were fixated on improving the hygiene of soda fountains.

The Great War, a luxury tax, refrigeration, bottles, disease and the battle against medical quackery were the final nails in the traditional soda fountain's coffin.

The war created strains on sugar supplies making it hard for syrup makers to negotiate a reasonable price, thus increasing the cost of a soda.

🔆 In 1911 there were 100,000+ soda fountains in America, serving 8 billion drinks yearly.

After the war, there was no relief. The government implemented a luxury tax on May 1, 1919 to pay for the war effort. The tax directly targeted the soda fountain. A soda that cost 5¢ was now 6¢. A milkshake that was 10¢ was now 11¢, and a drink that cost 15¢ now had an additional 2¢ tacked onto the price.

The tax was not applicable to bottled beverages, as there was another tax applied at the manufacturing level. Most manufactures absorbed the costs and refused to increase their prices. This created a huge demand for bottled soda.

The combination of lower bottle prices and rapidly improving refrigeration units made every corner store capable of competing with the soda fountain.

These factors forced soda fountains to rethink their business model. It became obvious that serving just soda and ice cream was only marginally profitable. Many of the owners began adding additional services, including food. This eventually evolved into the diners many wrongly envision as a traditional soda fountain.

 $[]{}$  In 1926 it was estimated that over 20 billion bottled drinks were consumed yearly in America

The soda fountain's death writ was delayed by prohibition. Once prohibition was repealed in the 1930s, adults abandoned the soda fountain and went back to the bar. The new breed of soda fountain / corner store / diner was now the domain of school kids and a dwindling number of abstainers.

The fountains demise was once again forestalled with the second World War. Alcohol was harder to access because of the war effort, so people returned to soda fountains to bide their time until the war ended. This was the final reprieve and within 20 years the soda fountain was on the critically endangered list.

The 1950s saw soda move into the mainstream business world. It was now a basic necessity at restaurants, theatres and bars. The drive thru dinner was dishing out



the malted milkshakes and banana splits as well as, or better than, the local drugstore. This happened because soda was no longer a vehicle for medicine, and technological advances made it easy for any business to install a soda fountain. With the increased competition, convenience of bottles and the invention of the aluminium can in 1957, pharmacists began jettisoning their fountains.

 $[]{}$  In 1892, the average person drank 12 bottles of soda per year, by the 1960s it was over 400.

By the 1960s, many pharmacies had closed their soda fountains and were focussing solely on the professional side of the business. A Los Angeles Times article (*Vanishing Soda Fountain Marks Decline of American Institution, August 15, 1967*) reported that many felt the fountains were a "*dangerous distraction*" that interfered with the prescription business. The increased potency of the drugs and the advancement of pharmacy services were seen as requiring the pharmacist's full attention. Other cited reasons for the closures included "*creating hangouts for youths who could pilfer or disturb operations*", finding reliable waitresses and maintenance costs of the fountain.

In 1965, pop bottles were being dispensed from vending machines making soda available everywhere. The convenience of a self-serve soda dispenser made the ramshackle soda fountain look utterly antiquated.

With that, the vibrant story of the soda fountain was relegated to the history books.

#### **Radioactive Beverages**

In 1911, Herbert Hewitt, of London, England was granted a patent from the United States Patent Office for a method "rendering mineral or aerated artificial saline waters, cordials, quinine concoctions, bitters and similar preparations radio-active" using radium.



In the early 1900's, the effects of radioactivity were not well understood. However, it was known that natural mineral springs had background levels of radiation, which many physicians thought were responsible for the associated healing properties. Incorporating radium and other radioactive elements into beverages and patent medicines wasn't uncommon during this period. The use of these elements was labelled as "radioactive quackery" once people became aware of the deadly reality of radiation exposure. 16