

BROMO SELTZER, A SUBTLE POISON

Researched and presented by Cecil Munsey, PhD

Was Bromo-Seltzer covered under the historic Pure Food and Drug Act of 1906?

The Food and Drug Act of 1906 made no provision for warning on the labels of drugs that may be dangerous when taken according to directions. While the law required that the presence of certain habit-forming drugs be declared on the label, it did not require enough additional information to make the statement mean anything to the average person. How many people who saw the declaration of acetanilide on Bromo-Seltzer knew that it might kill them? That it depressed the heart and destroyed the oxygen-carrying power of the blood? That it might make them slaves to the drug habit?

Note: [An average dose of Bromo-Seltzer—a teaspoonful—contains Potassium bromid (7 grains); Acetanilide (3 grains); and Caffeine (0.8 grains).]

The October 7, 1905 article, "The Great American Fraud" by Samuel Hopkins Adams, was the first in a series of 12 articles that appeared in Collier's National Weekly magazine.

James Harvey Young recounts in his book "The Toadstool Millionaires," that the editor of Colliers, Norman Hapgood, became so affronted by the fraud and effrontery of the patent medicine business, that he decided on a major campaign to expose them. He sought out a reporter capable of digging out the facts and writing a hard-hitting, full-scale exposure of medical quackery. The man was Samuel Hopkins Adams (Fig. 1). Young believed his choice was one of the shrewdest in the annals of journalism.

The publication of the entire series, followed by others



Figure 1 - Samuel Hopkins Adams (1871 - 1958)

in 1905 & 1906, so outraged the public that Congress was finally able to enact the first of several pure food and drug laws in 1906. The new law was called the 'Wiley' act after Dr. Harvey Washington Wiley, chief chemist of the U. S. Department of Agriculture, who had conducted tests for 20 years evaluating various foods & drugs and who helped Adams with his research. In the 1920s, the U. S. Food & Drug Administration was established to regulate the nation's food and drug industry. The American Medical Association reprinted the entire Collier's series in a book also entitled *The Great American Fraud* and sold 500,000 at 50 cents a copy. In 1906 the AMA set up its own chemical laboratory to evaluate which products were worthy of being granted permission to advertise in the AMA Journal. Dr. Arthur J. Cramp was the director of this project. As his work grew, he created The Propaganda Department that not only prepared material alerting physicians to medical quackery but also broadened its audience to include laymen being fleeced by quacks. From exposes written in the Journal he began publishing a series of pamphlets on various quack themes such as "Mechanical Nostrums," "Obesity Cures," etc. The AMA expanded these pamphlets into a three-volume series of books with the first appearing in 1911, a second in 1921 and the final one in 1936. (The first two were entitled *Nostrums & Quackery* and the third volume was entitled *Nostrums & Quackery and Pseudo-Medicine*.) They remain today an important source of information about medical quackery in America during the first part of the 20th century.

THE GREAT AMERICAN FRAUD is aptly subtitled "Articles on the Nostrum Evil and quacks, reprinted from Collier's Weekly". The muckraking* series began with

the October 7, 1905 issue of the well-known magazine (Fig. 2).

[*Muckraking is the action of searching out and publishing scandalous

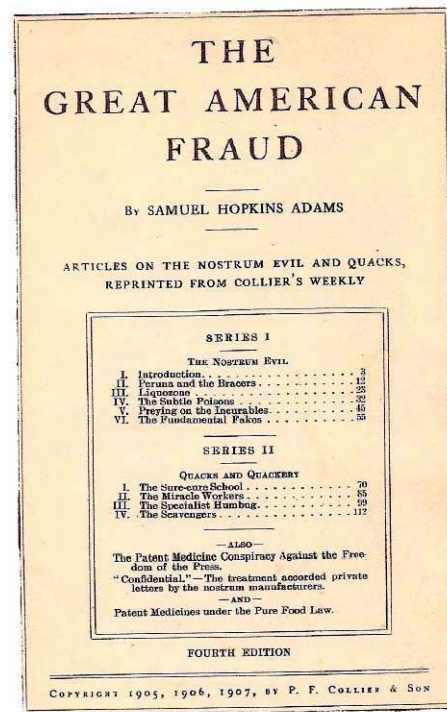


Figure 2 - The Great American Fraud.

information. (The term was coined by President Theodore Roosevelt in a speech in 1906, alluding to Bunyan's "Pilgrim's Progress" and the man with the muck rake.)]

The book included the earliest known list of people who had died of Acetanilid poisoning that was a major ingredient of Bromo-Seltzer, a bracer (patent medicine) taken to relieve headaches. The published list was entitled "An Acetanilid Death Record" (Fig. 3). The book also published a list of "remedies," both "ethical and patent" that contained high levels of Acetanilid — Bromo-Seltzer was prominent on the list (Fig. 4).

Since a half-ounce of this preparation was often taken as the standard dose and since many, especially women, were taking it daily,

AN ACETANILID DEATH RECORD.

This list of fatalities is made up from statements published in the newspapers. In every case the person who died had taken to relieve a headache or as a brace a patent medicine containing acetanilid, without a doctor's prescription. This list does not include the case of a dog in Altoona, Pa., which died immediately on eating some sample headache powders. The dog did not know any better.

Mrs. Minnie Bishop, Louisville, Ky.; Oct. 16, 1903.
 Mrs. Mary Cusick and Mrs. Julia Ward, of 172 Perry Street, New York City; Nov. 27, 1903.
 Fred. P. Stock, Scranton, Pa.; Dec. 7, 1903.
 C. Frank Henderson, Toledo, O.; Dec. 13, 1903.
 Jacob E. Staley, St. Paul, Mich.; Feb. 18, 1904.
 Charles M. Scott, New Albany, Ind.; March 15, 1904.
 Oscar McKinley, Pittsburg, Pa.; April 13, 1904.
 Otis Staines, student at Wabash College, April 13, 1904.
 Mrs. Florence Rumsey, Clinton, Ia.; April 23, 1904.
 Jenny McGee, Philadelphia, Pa.; May 26, 1904.
 Mrs. William Mabee, Leoni, Mich.; Sept. 9, 1904.
 Mrs. Jacob Friedman, of South Bend, Ind.; Oct. 19, 1904.
 Miss Libbie North, Rockdale, N. Y.; Oct. 26, 1904.
 Margaret Hanahan, Dayton, O.; Oct. 29, 1904.
 Samuel Williamson, New York City; Nov. 21, 1904.
 George Kublich, St. Louis, Mo.; Nov. 24, 1904.
 Robert Breck, St. Louis, Mo.; Nov. 27, 1904.
 Mrs. Harry Haven, Oriskany Falls, N. Y.; Jan. 17, 1905.
 Mrs. Jennie Whyler, Akron, O.; April 2, 1905.
 Mrs. Augusta Sirochmann, St. Louis, Mo.; June 20, 1905.
 Mrs. Mary A. Bispels, Philadelphia, Pa.; July 2, 1905.
 Mrs. Thos. Patterson, Huntington, W. Va.; Aug. 15, 1905.

Some of these victims died from an alleged overdose; others from the prescribed dose. In almost every instance the local papers suppressed the name of the fatal remedy.

Figure 3 - An Aceanili Death Record

PLEASE DO NOT ASK US

ANY OLD
 PATENT
 MEDICINE

What is Worth?

For you embarrass us, as our honest answer must be that

IT IS WORTHLESS

If you mean to ask at what price we sell it, that is an entirely different proposition.

When sick, consult a good physician. It is the only proper course. And you will find it cheaper in the end than self-medication with worthless "patent" nostrums.

Figure 4 - Please do not ask us

it was anything but "harmless" – (The Journal of the A.M.A., Feb. 10, 1906.)

Other case reports involving abuse of Bromo-Seltzer listed in the JAMA (Journal of the American Medical Association):

•Dr. D. T. Quigly, North Platte, Neb., reported a case of poisoning from this preparation. – (From The Journal of the A.M.A., Feb. 10, 1906, p. 454).

•Dr. W. J. Robinson, New York, reported a case of impotence following the excessive use of this nostrum – (From The Journal of the A.M.A., Aug. 18, 1906, p. 508).

•Dr. H. B. Hemenway, Evanston, Ill., reported the death of a woman, aged 31, from acetanilide poisoning caused by taking Bromo-Seltzer. – (From The Journal of the A.M.A., July 16, 1910).

•The Hastings Tribune, Hasting, Neb., reported the case of the death of Mrs. Lena Shepland, having a headache, took a dose of Bromo-Seltzer; this not giving the desired relief, she also took a dose of Antikamnia, a similar patent medicine. An hour later she was dead from heart failure induced by these two heart-depressing nostrums. – (From The Journal of the A.M.A., Dec. 29, 1906, p. 2158).

No action could be taken against the product or its manufacturers, for it was truthfully labeled with the quantity of acetanilide that was indicated on the label exactly as the law required. To prevent further tragedies of that kind, the only thing the government could do was to issue a warning against such preparations and urge the public to read labels. It is not known how many newspapers published the warning.

Combating the spread of worthless nostrums:

Largely for trade reasons a few druggists began fighting against the nostrums, but without any considerable effect. Indeed, it is surprising to see that people were so deeply impressed with

the advertising claims on the nostrums put forth daily as to be impervious to warnings even from experts.

One cut-rate store, the Economical Drug Company of Chicago, started on a campaign and displayed a sign in the window (Fig. 5). Posting the sign was followed up by the salesmen informing all customers for prominent nostrums like Bromo-Seltzer, that they were wasting their money; yet with all that the store was unable to get rid of its patent medicine trade that was, by the way, one-third of its entire business.

In 1935 Partners in Plunder was published and touted as "...a startling book

which names and makes charges of the utmost seriousness – 'that the ordinary commercial methods of big business are essentially no different from the gangster methods of racketeering!'" By that the authors were more specific with:

"The acetanilide in 'Bromo-Seltzer' is a habit-forming drug and the product is a dangerous one, the advertisements to the contrary notwithstanding."

Death did not always follow the taking of acetanilide. "A human life may be destroyed slowly and insidiously over a period of years through addiction to the enslaving drug. Medical literature abounds with the pitiful histories of patent medicine victims. One such case was brought to public notice when a Bromo-Seltzer addict was committed for the fourth time to a State asylum not far from Washington, D. C. A man of good family and cultural background, he was a commercial artist and used to command a good income. Five doses of Bromo-Seltzer every day—he had been getting them at a soda fountain—have helped to make him a physical and mental wreck. He was habitually in such a doped, dazed condition, with hallucinations and a persecution complex so that he is no longer able to earn a living or be at large, and his family ended up on the relief roll."

Acetanilide alone may not have been entirely responsible for the above condition. Bromo-Seltzer contained yet another dangerous and demoralizing ingredient—sodium bromide. Long-continued use of bromides, according to Torald Sollmann, leads generally

BEWARE OF ACETANILID

The following well-known "remedies," both "ethical" and "patent," depend for their results upon the heart-depressing action of Acetanilid:

Orangeine	Megrimine	Ammonol
Bromo-Seltzer	Anti-Headache	Salacetin
Royal Pain Powders	Dr. Davis' Headache	Cephalgin
Miniature Headache Powders	Antikamnia	Phenalign

and practically all of the drug-store-vended "headache cures" and "anti-pain" remedies.

Take no nostrum of this class without a doctor's prescription, unless you are sure it contains no acetanilid. Make the druggist tell you. He is responsible. A suit for damages has recently been won against a New York drug store for illness consequent upon the sale of a "guaranteed harmless" headache tablet containing three grains of acetanilid.

Figure 5 - Beware fo Acetanilid

to serious physical and psychic disturbances.

Not the least of these are sexual impotence and bromide intoxication. Walter A. Bastedo, added that even in the treatment of epilepsy, for which bromides have long been used,

"...is nowadays thought better, except in refractory cases, to take some risk of convulsions rather than to bring a patient into such a hopeless condition of uselessness."

Bromide intoxication was a rather frequent occurrence, but was only then beginning to be generally recognized. In some of its symptoms it was so much like sleeping sickness or delirium tremens that only determination of the blood bromide can make a diagnosis certain. The first effect of bromides is sedative – the individual becoming drowsy and apathetic. Later, however, the patient gets nervous, irritable, even violent, and takes more bromide to calm himself. As intoxication progresses, he becomes confused, his speech is thick and slurred; his legs are unmanageable; and he loses all sense of time and place, his memory fails him; he sees enormous animals and tiny people; he thinks he is being persecuted and tries to escape. Eventually he falls into a coma.

Dr. George T. Harding of Columbus, Ohio, [brilliant young nephew of the late President Warren G. Harding] who probably knew more about bromide delirium and the proper treatment for it than anybody else, said it can occur under "therapeutic doses in susceptible individuals." In one case that he treated, bromides had been given to control the pain following a leg amputation. Although the circumstances were unusual, the hallucinations seemed typical:

"At times he saw gunmen at his window and tried to escape. Miniature dancing girls performed on the mantel. Large animals crossed the room. His wife drowned in a large glass case in the corner of the room; his daughter was brought to see him in his coffin. Children played in his drinking glass. He welcomed guests with elaborate gestures. During a lucid interval while being told the nature of his confusion, he turned the sheet down

and apologized, 'I know there aren't any fish there but I have to look to be sure I don't see them.'"

Another case that Dr. Harding treated might very easily have been mistaken for delirium tremens, for the man, who was a heavy drinker, had taken bromide in an effort to sober up. As the case record has it:

"For ten days he was disoriented, saw mice run up his pants' leg, a duck in the bed, and felt water poured on him by his tormentors. Refused to eat because he suspected he was being poisoned, became violent in his attempts to escape. On the tenth day he became lucid, wrote a letter to his mother, but after several hours snakes appeared in his bed."

One cannot help wonder how many "luckless playboys" of the period had been falsely suspected of D.T.'s when they were guilty of only the effects of some bracer like Bromo-Seltzer.

Dr. Titus H. Harris and Dr. Abe Hauser of the Department of Neurology and Psychiatry in the University of Texas School of Medicine had also considerable experience with bromide intoxication. One case they treated was that of a man whose reeling gait and inability to give an account of himself had caused him to be picked up by the police and sent to the hospital. At first he was thought to be suffering from acute alcoholism. He was in a comatose state for three days; then, as he began to improve, he showed typical symptoms of delirium tremens. The blood test, however, disclosed that his trouble was bromide intoxication. Later it was learned that he had been in the habit of taking a bromide prescription as an antidote after his alcoholic sprees. His brother said that he had had several attacks of stupor before, but they had lasted only a day or two. In reporting the case in the *Journal of the American Medical Association*, the physicians commented:

"We feel that this patient had probably been mildly intoxicated with bromide for months or even years. He was in the habit of taking large amounts of the prescription mentioned

and was inefficient in his work, never being able to hold a job for any

length of time, although he had a good technical education."

Bromide intoxication is due to the readiness with which bromides replace the body chloride when there is not enough salt in the diet. Anything that interferes with the normal absorption of salt predisposes to intoxication if bromides are taken. This seems to be the case particularly with chronic alcoholism; but saltless cooking or any other factor conducive to improper nutrition may also be guilty. Intoxication occurs when bromides have replaced 30 per cent of the chloride; replacement of 40 per cent is said to be fatal.

A curious aspect of bromide poisoning is the sequence of symptoms and the way this sequence may be reversed—like a motion picture—under salt therapy and the withdrawal of bromides, the coma giving way to hallucinations, extreme irritability, restlessness, and so on backward until the patient is cured. But care and caution are necessary in case the bromide was released from the tissues more rapidly than it could be expelled from the body, for the heightened nervous excitement could give rise to trouble. In a case Dr. Harding describes, a Bromo-Seltzer addict whose family took him home from the sanitarium – the man committed suicide.

"Most people," according to the advertising, "have their first Bromo-Seltzer at the soda fountain." The druggist was provided with the dispensing apparatus free of charge (Figs. 6 & 7). One turn of the wheel was supposed to measure out exactly 3 3/5 grains of acetanilide, 7 1/2 grains of sodium bromide, and enough caffeine, sodium bicarbonate and citric acid to make up the manufacture-prescribed dose for ordinary headache. "If the man behind the soda fountain is careful, he can get sixty doses out of the dispensing bottle—a profit of \$4.75 for the druggist."

But soda-jerks [-jerkers] sometimes were sloppy, as the Emerson Drug Company seemed to know, for with each dispenser went a display card urging the druggist to "...stop waste



Figure 6 - Bromo-Seltzer soda fountain dispenser



Figure 7 - Bromo-Seltzer glass and soda fountain dispenser (close-up)

at the soda fountain!” More than the regular dose will not dissolve easily, sticks to the side of the glass and is wasted. Besides, the customer ‘does not relish a mouthful of undissolved granules.’” Mixing a Bromo-Seltzer, from the instructions, is as much a fine art as mixing a *pousse-café*. But out of the abundance of the Emerson Drug

Company’s anxiety to please its patrons there emerged no word of warning as to the consequences of over dosage other than the depleting effect on the druggist’s profit.

One dose of this insidious habit-former may call for another and in the course of a year the American people, so it was estimated, spend \$20 million to dope themselves with Bromo-Seltzer. Of this vast sum “...two tithes a year [20%] were consecrated to advertising.”

The authors of *100,000,000 Guinea Pigs* verifies that \$20 million was spent annually on Bromo-Seltzer and stated that according to the “Committee on Costs of Medical Care,” the total cost of prescriptions filled annually in the United States was about \$140,000,000. And that fast-selling nostrums like Bromo-Seltzer would bring the druggists as much business as all of his prescription filling. The fault lies less with the druggist than with a drug and prescription system that mixes a “minor profession” with a major business. What is left of the professional interest must inevitably suffer.

That reckless dispensing of harmful or habit-forming drugs at the soda fountain, in bars and in lunchrooms was certainly not in the public interest. What is equally certain is that it could not be stopped by federal statute any more than traffic in liquor could have been [reference to national Prohibition – the Volstead Act]. But people at least had a right to know what they are getting and whether or not it would imperil their health. Then, if they were willing to take a chance, the consequences were their own responsibility. Warnings at the soda fountain were a matter for the states to take care of. Warnings on packages sold over the counter can and should have been required of such products in interstate commerce as may have been dangerous when used according to directions.

Under the [1906] Pure Food and Drugs Act, the quantity or proportion of any alcohol, morphine, opium, cocaine, heroine, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilide [as in Bromo-Seltzer] or any derivative or preparation of these substances that the medicine contains, must be declared on the label. This list by no means exhausts the dangerously potent drugs offered for

the home treatment of serious diseases. There are plenty of others that are never hinted at in the labeling. Because they bring some pronounced reaction at appeals to the patient, making him think he is getting good results, their harmful effects may not be noticed until too late.

Bromo-Seltzer history:

In 1888, behind the prescription counter of a modest drugstore on East Pratt Street near Charles Street in Baltimore, Isaac E. Emerson first conceived the idea of a headache remedy (Fig. 8). His background in chemistry and pharmacy led to the development of a granular effervescent salt he named “Bromo-Seltzer.” Dispensing it to friends and customers at his drugstore, it soon became so successful that he abandoned his retail business to devote his time to the manufacture and sale of his new product. Eventually, he organized the Emerson Drug Company, incorporating it in Maryland in 1891. The company soon had factories in

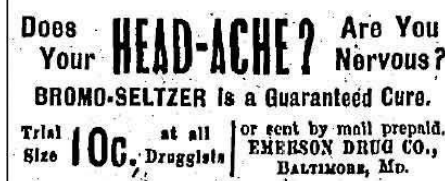


Figure 8 - Bromo-Seltzer ad November 1890

Maryland and New Jersey. An early advertisement featured company headquarters, a bottle, and Camden Yards the famous baseball stadium in nearby Baltimore (Fig. 9).

Bromo-Seltzer Blue Glass:

The Maryland Glass Corporation was one of the original manufacturers of the famous blue bottles (Fig. 10). By 1929, they had the capacity to manufacture 72 million bottles



Figure 9 - Emerson Drug Co.jpg

annually. Bromo-Seltzer was first sold in blue glass bottles that were manufactured by the Cumberland Glass Company (1880-1930), of Bridgeton, New Jersey. As the demand for Bromo-Seltzer grew, Cumberland was unable to meet the demand for the bottles. Captain Emerson then asked Philip I. Heuisler, his vice-president in charge of manufacturing, to



Figure 10
- Bromo-Seltzer famous blue bottle



Figure 11 - Bromo-Seltzer small

organize a glass factory to make the dark blue glass bottles (Fig. 11) and "Acin" light blue drinking glasses (Fig. 12). The glasses (acid-etched with "Bromo-Seltzer") were given to drug stores as premiums for ordering Bromo-Seltzer or were gifts to glass factory visitors who made a two-and-a-half hour tour of the plant for thirty cents.

By 1928, the Bromo-Seltzer business, although larger than ever before, represented only about twenty-five percent of the total manufacturing capacity of Maryland Glass. In the decades following, Maryland Glass continued to expand and, by 1964, the firm employed some seven hundred people who worked around the clock, turning



Figure 12 - Bromo-Seltzer Glass

out approximately one million glass bottles and jars each day. The company became the leading producer of blue glassware in the world.

FIZZIES® (a tablet that when added to water, will create a soft drink) was also invented by Emerson Drug Company. The idea derived from scientists working with chemical formulas similar to "Bromo Seltzer" and wondering if a fun, fruit-flavored drink could be developed the same way. "Wouldn't it be grand if we could drop a tablet in a glass of water and have an instant soda pop?" After long hard work, they finally figured out how to combine the right combinations of fruit flavoring, sweetener, citric acid and sodium bicarbonate (a substance that is much like baking soda) into a magical tablet that when dropped into water, turned water into an instant sparkling, effervescent fruit drink!

In 1956, Maryland Glass, together with its parent company, Emerson Drug, merged with Warner-Lambert Pharmaceutical Company, of Morris Plains, New Jersey. The Warner-Lambert Pharmaceutical Company is now part of Pfizer.

Captain Isaac E. Emerson, Founder of Bromo-Seltzer

Captain Isaac Edward Emerson, the son of farmer Robert J. Emerson, was born Chatham County, North Carolina in 1859. He graduated from the University of North Carolina in 1879, later spending time as an instructor in chemistry there.

During the time he was establishing his business, Captain Emerson also led his own naval force during the Spanish-American War. In 1894, he formed the Maryland Naval Reserves and, by 1898, provided the entire crew for the United States Ship Dixie. Commissioned a Lieutenant, he received his rank as Captain after the war.

Emerson was considered a pioneer among America's businessmen because he realized the importance of advertising. At the time of his death in 1937, he had accumulated an estate of \$20 million, owning the controlling stock in four corporations: Emerson's Bromo-Seltzer,

Inc.; the Emerson Drug Corporation; the Maryland Glass Corporation and the Emerson Hotel (Figs. 13 & 14).

His home at Brooklandwood, the Green Spring Valley estate in Maryland, was considered a showplace. Among his other properties, he owned a summer villa at Narragansett Pier and thousands of acres of hunting preserves in South Carolina. He and his daughter Margaret (whose second husband, Alfred Gwynne Vanderbilt lost his life when the Lusitania was torpedoed) were interested in breeding horses. Captain



Figure 13 - Emerson Hotel (1910 view) Baltimore, Maryland

Emerson also owned two yachts, which he used for long cruises and around-the-world trips. He and his second wife, Mrs. Anne Preston McCormack Emerson, were widely known in American and European society.

The Bromo-Seltzer Clock Tower Building

Situated at the corner of South Eutaw and West Lombard streets, (near Camden Yards, the home of the Baltimore Orioles baseball team, and the famous Munsey Building at 7 N. Calvert Street), the Bromo-Seltzer Clock Tower Building, laboratories and home office of the Emerson Drug, Company, has been a landmark in



Figure 14 - New Emerson Hotel (1936) in Baltimore, Maryland

Baltimore since 1911 (Fig. 15).

Clock Tower Building statistics: Total height of tower, 357 feet. The bottle on top, a facsimile of the regular ten-cent Bromo-Seltzer bottle, about 10 million times larger, is 51 feet high, 20 ½ feet in diameter, weighs 17 tons (34,000 pounds), and revolves at the



Figure 15 - Bromo-Seltzer Tower Building (1911)

rate of 107 feet per minute. There are 596 electric lights in bottle and crown surmounting it, which can be seen at a distance of 20 miles.

The Bromo-Seltzer clock is the largest four-dial gravity clock in the world. The dial is 24 feet in diameter. The minute hand is 12 feet, 7 inches long, and weighs 175 pounds. The hour hand is 9 feet, 8 inches long and weighs 145 pounds. The pendulum is 15 feet long and weighs 475 pounds. The clock is automatically wound by an electric motor every six hours.

A former Maryland resident recalls hearing that Captain Emerson modeled the tower after one he had seen in Florence, Italy. Certainly, a comparison with the Palazzo Vecchio, by architect Arnolfo di Cambio, confirms the resemblance.

Although the tower is 14 stories high, the top story is numbered 15 because there is no floor numbered 13. (According to a newspaper account of the time, the flashing light on the huge revolving Bromo-Seltzer bottle atop the tower served as a guide to aviators flying the night mail. It could be seen from trains arriving in the city. In 1935, the bottle was taken down, after twenty-five years of dominating that part of the Baltimore scene. The base upon which it stood was disintegrating. The outer covering was burned and its framework sold as 20 tons of scrap metal.

The Baltimore Arts Tower Committee reopened the Tower Building in 1973 as an arts and crafts center (Fig. 16).

An adjoining part of the building is presently used as a firehouse. A decision was made only recently to preserve the landmark building, now dwarfed by larger office buildings in the area.

Bromo-Seltzer advertising:
The most famous of the items the Emerson Drug Company used to promote its main product Bromo-Seltzer was their famous blue bottle as previously shown. While today the empty blue bottles retain their interest to collectors, so many were produced their value is one to several dollars. Other collectibles from the historic firm, such as a wide variety of sheet



Figure 16 - Bromo-Seltzer Clock Tower

music, was distributed free to promote the headache powder. Fig. 17 is one of the most popular – “Orange Blossom Waltzes.”

One of my favorites, as a kid during the days of early radio, was the advertisement that focused on and featured the repetitious oral rendering of the name of the nostrum to imitate the sound of a classic steam train starting and gaining speed. It ran quietly at first and gradually got louder as it picked



Figure 17 - Advertising sheet music

up steam and speed. The following is a visual rendering of that concept:

Bromo-Seltzer, BromoSeltzer!
 Broma-Seltzer, Bromo-Seltzer!
 Bromo-Seltzer, Bromo-Seltzer!
 Bromo-Seltzer, Bromo-Seltzer!
 Bromo-Seltzer, Bromo-Seltzer!
 Bromo-Seltzer, Bromo-Seltzer!
 Bromo-Seltzer, Bromo-Seltzer!

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38th Annual

SOUTH CAROLINA BOTTLE CLUB SHOW AND SALE

No Early Admission Fee

Friday, February 18, 2011
11 AM to 6 PM

Saturday, February 19, 2011
9 AM to 1 PM

150+
Tables

Always a
Sell Out!

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