The Playboy and the Radium Girls (Part 1: The Playboy)

By Dan Cooper and Brian Grinder

A more gruesome experience in a more gorgeous setting would be hard to imagine. We went up to South Hampton where Byers had a magnificent home. There we discovered him in a condition which beggars description. Young in years and mentally alert, he could hardly speak. His head was swathed in bandages. He had undergone two successive operations in which his whole upper jaw, excepting two front teeth, and most of his lower jaw had been removed. All the remaining bone tissue of his body was slowly disintegrating, and holes were actually forming in his skull.

—Robert Hiner Winn in *Time* magazine, April 11, 1932

Radium, in the early 20th century, was considered a medical miracle; the expectations for radium were similar to the hopes we hold out today for stem cell or DNA research. Soon after its discovery in 1898 by Marie and Pierre Curie, radium's curative powers had the scientific community buzzing. Curie-therapy treatment clearly demonstrated radium's amazing ability to destroy cancerous tissue especially in sensitive areas of the body where "radical surgery was difficult, dangerous, and disfiguring." (Macklis, 1990) The Curies, according to historian Claudia Clark, initially thought that radium could selectively destroy cancerous cells and enhance the growth of healthy cells.

According to oncologist Roger Macklis, "Every important medical school sought to establish a radium treatment center. At Harvard, the Huntington Memorial Radium Hospital was opened in 1912 and advertised radium ward beds for $5 a day. Treatments were given in private telephone booth-sized cubicles and the radium itself was kept in a burglar-proof concrete vault." There was also speculation that radium could prove beneficial if taken internally. One of the first internal uses of radium was for treating tuberculosis. Soon radium was being touted as a treatment for everything from sexual impotency to hypertension, and companies began to produce radium specifically for use as an internal medicine. Mild radium therapy (small doses of radium taken internally to rejuvenate damaged cells or tissue) quickly achieved legitimate standing in the medical community.

Of course, this also led to a great deal of medical quackery. Advertisements abounded in newspapers throughout the country heralding radium products that could cure just about any common ailment known to man. There were even rumors that radium, in combination with X-rays, could be used to turn black skin white! (de la Peña, 2006) Descriptions and photos of some of the strange radioactive products that were available during the era of mild radium therapy are available at the Oak Ridge Associated Universities web site. (http://www.orau.org/PTP/collection/quackcures/quackcures.htm)

One of the most notorious quacks was William J.A. Bailey, a Harvard drop-out who claimed to hold a doctorate from the University of Vienna. Bailey had been involved in a number of fraudulent business schemes prior to his foray into radium, but he finally hit pay dirt with a product he called Radithor. Radithor was produced at Bailey Radium Laboratories in East Orange, New Jersey and promoted primarily as an aphrodisiac. Bailey was able to sell more than 400,000 bottles of this dangerous substance between 1925 and 1930. He evidently purchased radium and mesothorium from the U.S. Radium Corporation and simply mixed it with distilled water. According to Clark, a case of 30 half-ounce bottles of Radithor had about $3.60 worth of radium in it. Physicians were charged $25 for a case of Radithor and the general public paid $30 a case.

Clark also notes that Bailey had competitors whose radium concoctions (fortunately for the gullible public) did not contain any radium at all. In 1989, Macklis came across some empty Radithor bottles at an antique shop. He purchased the bottles, took them to his lab to test them, and found that they were "still dangerously radioactive." (Macklis, 1993)

Enter the Playboy

Eben Byers was a wealthy captain of industry. He was chairman of the board of the A.M. Byers Steel Company of Pittsburgh and served on the boards of several other Pittsburgh-based companies. He was also an avid sportsman who in 1906 won the national amateur golf championship. In addition to his prowess on the golfing green, Byers enjoyed owning race horses and was a skilled trap shooter. When Byers wasn't running corporations or engaging in sports activities, he was busy honing his reputation as a ladies' man. Macklis has described him as "the personification of the Roaring '20s." (Winslow, 1990) Byers, a relative unknown today, may be familiar to golf enthusiasts as the man who was defeated by legendary golfer Bobby
Jones in the national amateur championship of 1916 when Jones was only 14 years old; this feat was recently depicted in the 2004 movie Bobby Jones: A Stroke of Genius.

In 1927 Byers injured his arm on the train ride home from the annual Harvard-Yale football game. He evidently fell out of an upper sleeping car berth. The injury continued to bother him for some time, and he noticed that he was feeling a bit sluggish. It was also rumored that his sex life was suffering after the accident. After consulting several doctors, evidently without success, Byers met with physiotherapist Charles C. Moyar who suggested that he might find relief by using Radithor. Byers began to drink several bottles of the elixir every day, and initially it seemed to help. This apparent success led Byers to become an enthusiastic Radithor endorser. He heartily recommended it to his friends and sent cases of it to some of them. He even went so far as to use it on one of his race horses.

However, after about two years and several hundred bottles of Radithor, Byers' jaw began to bother him, and he started suffering from severe headaches. Later he developed sinusitis and his teeth began to abscess. His friend Mary Hill, whom he had encouraged to use Radithor, had also fallen ill. Byers' physicians were baffled by his illness, but a radiologist who examined his X-rays noticed there were similarities between Byers' jaw problems and those of female dial-painters who had died of radium poisoning in the 1920s. A radium laced paint was applied by these workers to watch dials in order to make them glow in the dark. A well-publicized trial in the late 1920s had brought a great deal of attention to the plight of the "Radium Girls," but Byers had either ignored this trial or failed to connect the radium poisoning of these working class women to his own consumption of a radium laced product that had been recommended by his doctor. Consultation with Dr. Frederick B. Flinn, a physiologist from Columbia University who had worked on the dial painter case, confirmed that Byers was dying of radium poisoning. Byers' personal physician, however, refused to accept the diagnosis.

But Flinn was right, and Byers continued his downward spiral toward the inevitable. In the meantime, the Federal Trade Commission, partially because of Byers' illness, began investigating some of the questionable claims made in Radithor advertisements. A hearing began in 1930 with expert testimony both for and against the internal use of radium. Dr. Flinn appeared as a witness against the use of Radithor. Byers was also scheduled to testify, but since he was too ill to travel attorney Robert Hiner Winn was sent to his Southampton estate to take his testimony. In December of 1931, the FTC issued a cease-and-desist order against Bailey, but by then he had already stopped producing Radithor.

The end came for Byers on March 30, 1932. He was 51 years old. His death from radium poisoning was front page news in the April 1st edition of The New York Times. An autopsy, as reported by Time magazine, "revealed that he had only six teeth left. Both jaws were rotted. His brain was abcessed. Distributed through his bones...were 36 micrograms of radium. Ten micrograms is a fatal quantity."

Mary Hill had died the previous fall from radium poisoning and friends, according to Time, were "gravely worried." Friends and family alike were concerned that the mysterious disease might be contagious. The Literary Digest noted a "chill of apprehension over the country" after Byers death. Byers' company also suffered a blow as its stock lost about a third of its value in the days following his passing. The tragic and mysterious death of a key executive in the midst of the Great Depression only served to compound the company's troubles.

Byers' death led to the end of the use of radioactive patent medicines. The FTC reopened its investigation after Byers died, and the Federal Drug Administration used Byers' death to gain more control over the medicinal use of dangerous substances such as radium. A May 12, 1932 headline from The New York Times noted a meeting of prominent doctors from around the world whose sole purpose was to ban radium water. Regulations were quickly adopted that killed off this dangerous industry.

Moyar and Bailey both questioned the diagnosis of radium poisoning. Both drank Radithor regularly and surprisingly never suffered any ill

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office. The company maintained a “Country House” outside the city for people recovering from illness. Another benefit was a pension system, inaugurated in 1914. The main office housed a restaurant, which, contrary to the claims of economists, gave free lunches to all employees and breakfast and dinner to employees working before or after hours. Employees could even visit a company store, which sold meat, butter, eggs, flour, canned goods, tobacco and fruit at less than market prices.

Between its small but ambitious beginnings in 1864 and the 1920s Guaranty Trust became one of the world’s most important banking institutions. After 1891 the bank was linked to powerful names in global enterprise, including J.P. Morgan. Its international activities were perfectly timed to contribute to the transfer of financial power to the U.S. from Europe during World War I.

By the 1920s Guaranty’s professional image and comprehensive range of banking services, including in the booming field of equity securities, suggested the broader future of commercial banking. Guaranty’s rise—in the short span of three decades—earned it a prominent place in American banking history. Its success had a more permanent impact: In 1958-1959 Guaranty merged with J.P. Morgan, creating the Morgan Guaranty Trust Company of New York, predecessor to the modern banking behemoth, J.P. Morgan Chase.

As the Greek dramatist Aeschylus wrote more than 2,000 years ago: “From a small seed a mighty trunk may grow.”

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effects. Moyar protested, “I have taken as much or more radium water of the same kind as Mr. Byers took, and I am 51 years old, active and healthy.” He insisted that Byers had succumbed to “a combination of blood diseases which had induced gout.” Bailey, who acknowledged drinking “more radium water than any man alive,” did not believe that his product had caused Byers’s death. Moyar lived to about age 62, and Bailey died at the age of 64 from bladder cancer. By 1930s standards, both of these men were relatively old when they died. It is interesting to note, however, that when Bailey’s body was exhumed 20 years after his death, it was found to be highly radioactive. Neither man was ever prosecuted for their part in the demise of Eben Byers.

It took the death of a prominent socialite to end the dangerous practice known as mild radium therapy, but the dangers of radium in the workplace, which were well documented in the 1920s case of the Radium Girls, would continue to pose health hazards to the working class for decades. We will take up that story (Part 2: The Radium Girls) in the next issue of Financial History.

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Sources


“Radium Poisoning,” The Literary Digest, April 16, 1932, p. 13.
