The American Academy of the History of Dentistry, a not-for-profit organization founded in 1951, has as its goals the following:

- Creating an authoritative body to which important questions relating to dental history could be referred for factual verification.
- Stimulating more thorough and comprehensive research in dental history, thereby extending the boundaries of dental knowledge, giving substantial support to growing professional culture.
- Increasing interest among dentists in dental history.
- Encouraging both the development of historical collections on dentistry, and the offering of adequate instruction in dental history.
- Stimulating professional discussion of the facts of dental history as an aid in solving problems in dental education and practice.
Dr. Adolph Bushell: A New England Treasure &  
A Renaissance Man for All Seasons ................................................................. 54
  John Russo, DMD  
  & James L. Gutmann DDS, Cert Endo, PhD (honoris causa), FICD, FACD,  
  FADI, FAHD, Diplomate, American Board of Endodontics

The Nitrous Oxide “Dream” of Cora Gray: A Dental Anesthesia Story of 1884 ............... 61
  Arden G. Christen, DDS, MSD, MA  
  & Joan A. Christen, BGS, MS

On the Management of Root Canals in Teeth that  
Exhibit a Draining “Fistulous” Tract ....................................................................... 69
  James L. Gutmann DDS, Cert Endo, PhD (honoris causa), FICD, FACD,  
  FADI, FAHD, Diplomate, American Board of Endodontics

“They’ll Do it Every Time”—Four Early Dental Comic Strips by Jimmy Hatlo ................. 74
  Arden G. Christen, DDS, MSD, MA  
  & Joan A. Christen, BGS, MS

John G.C. Adams: Father of Dental Public Health in Canada ...................................... 77
  David J. Kenny BSc, DDS, PhD, FRCD(C)  
  Anne C. Dale BA, DDS, FICD, FACD  
  & David G. Wencer, BA

Dental Trade Cards XLI .......................................................................................... 84
  Theodore P. Croll, DDS  
  & Ben Z. Swanson, Jr., DDS, MPhil

Dental Postcards LVI .............................................................................................. 87
  Arden G. Christen, DDS, MSD, MA  
  & Joan A. Christen, BGS, MS

From the Archives: Vol. 4, Nos. 11 & 12 ................................................................ 89

Book Shop ............................................................................................................. 93
The landscape of New England lost a treasure on July 26, 2013 in the person of Dr. Adolph Bushell. He was a man for all seasons who dedicated his life to helping people around the world in meaningful ways. Dr. Bushell was 90 years old at the time of his passing, having spent over 60 of those years in the service of others; primarily through his dental expertise and leadership, but also through his amazing humanitarian efforts and lifetime of volunteerism for which he received numerous awards and recognition.

Dr. Adolph Bushell was born on February 5th, 1923 in New Britain, Connecticut, the son of Russian immigrants Josef and Dora Bushell. He attended Ohio State University from 1941-1943. Enlisting in the US army in 1943, he was assigned to the 44th Infantry Division during World War II. Shortly after being deployed to France, he suffered a shrapnel wound to his leg and was sent to a French hospital to recover. On New Year’s day, 1945 Adolph rejoined his unit. While on a scouting mission, they were captured by a German patrol and placed in a POW camp in Baden-Baden, Germany. Shortly after, Adolph’s parents received a telegram from the Army notifying them that he was missing in action, as was his brother David.

Sixty men were crowded into a room, each with only a few feet of space, and most men sleeping sitting down. Food was scarce at, and the most they had was a potato and a small piece of brown bread for lunch, and rutabaga broth for breakfast and dinner. There was an outhouse, but it was winter and conditions were bad. When a care package finally arrived with cigarettes and some food, Adolph traded his cigarettes for food, as the smokers needed cigarettes more than food. Adolph was worried each time they went to the showers, as he thought they

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were going to be gassed. Luckily, it was truly only a shower and delousing treatment.

Some of the men went stir crazy; however Adolph just took things one day at a time. While in the camp, a German soldier asked if anyone could speak French. Adolph had studied French in high school, but by his own admission he was linguistically handicapped. When he said, “Je parle un peu Français” the soldier corrected him and said, “You don’t say ‘I speak a little French,’ you say, ‘I speak French a little’—‘Je parle Français un peu!” Then the soldier took him aside and said that he knew Adolph was Jewish. Adolph replied, “How do you know that?” The soldier added, “People speak in here, but take my advice and say nothing. Your name is Adolph and that will help you.” After four months as a POW, he was liberated by British troops in April of 1945.

Adolph’s parents were notified that both their sons were alive and returning to the United States. Adolph was not aware that his brother Dave had also been a POW, nor even that he was still alive. In April of 1945, the British sent Adolph to England before being sent back to the US. At roll-call one day, the sergeant called out the name, “BUSHELL.” Adolph noticed that as he called out the name, he was looking at the opposing lineup of troops. Then he heard someone respond, “Here.” To Adolph’s surprise, it was his brother David! Reunited, they returned home to a welcoming community of family and friends. Adolph was awarded the Purple Heart; he never complained about his wounds nor his ordeal as a POW. He did believe that were it not for his first name being “Adolph,” his Jewish identity would have been discovered and he would not have survived the war.

Back in the US, Bushell attended Temple Dental School, graduating in 1950. He then opened a practice in general dentistry in Cromwell, CT, where he practiced for six years. During that time, those who saw his work were amazed at how beautiful it was, unlike anything they had ever seen in dentistry, earning him the name “the dentist with the magic hands.” (Fig. 1)

While Adolph was still a general dentist in Cromwell, there was a fire in a hardware store in town. Dr. Mel Slusky, another general dentist in town, had a practice in a building adjoining the store. Because of the smoke damage to Dr. Slusky’s office, he could not work. Dr. Slusky recounts that Adolph came to him and offered his office to him for the week, while he was away on vacation. “But what about the materials I use,” he asked Adolph? “Don’t worry about the materials,” Adolph said, “How much can you use in a week?” To this day, Mel still talks about that sincere gesture of kindness.

As a general dentist Adolph was drawn to the challenge of performing a wide range of good endodontic procedures. He took courses in the field, which were then only offered at the University of Michigan and University of Pennsylvania. In the late 1950s he left general practice and opened a practice in Hartford limited to endodontics. Endodontics was not recognized as a specialty per se by the ADA until 1964; accordingly, Adolph was considered by his peers as the pioneer in the field of endodontic practice in the state of Connecticut.1,3

Dr. Bushell was one of, if not the best endodontic surgeons in the state and region, and his reputation spread far and wide. (Fig. 2) Adolph reported that his interest in surgical endodontics arose after reading an article by Dr. Mort Amster-
It included a case treated by a Dr. Sam Rossman from Philadelphia, PA, of a lower molar apical surgery, using a root-end amalgam filling. Adolph was excited about this treatment modality that could save a tooth that was failing after nonsurgical root canal treatment. He said that the article by Dr. Amsterdam contributed greatly to his becoming an endodontist, with a strong interest in surgical endodontics. He maintained that one apical retroseal film changed his lifetime career and led to a specialty that he loved and enjoyed every day until his retirement at age 88.

In fact the University of Connecticut, Boston University, Tufts and New York University all had residency programs in endodontics that pulled from Adolph’s surgical expertise, resulting in his being appointed to these programs. (Fig. 3)

The story has it that one Thursday afternoon in 1973, two of the endodontic residents observed a root-end surgical procedure on tooth #3 on a middle-aged female patient. They knew that Dr. Bushell was a very competent surgeon, so after the local anesthetic was administered, the residents checked their watches and began to time Dr. Bushell to see how efficient he was. After the buccal roots were beveled, apical amalgams placed, and sutures precisely tied, they checked their watches and were astonished to see that only 12 minutes had elapsed. After the patient was dismissed, they asked Dr. Bushell if he knew how long the procedure had taken, and of course he replied, “No, I don’t.” He was told that the surgery took only 12 minutes, to which he replied, “Well, I try to work efficiently so that the sutures are placed before the bleeding begins. It’s much neater that way.”

One day at NYU, when the endodontic residents awaited Dr. Bushell’s arrival, the clinic had two patients in need of surgical endodontics. Adolph reviewed both cases and said, “Well, this patient needs #7 treated, and the residents won’t learn much from this demonstration. The other is #32,” he said (that’s right, bad old #32), “So why don’t we do that one?” “That one” did command his attention and expertise. Years later he was asked how the case actually went. He said, “Good...it was a little difficult finding the root tips, but once I stopped the bleeding, I placed two amalgam root-end fillings and it came out good...Came out good...”

Just how well-known was Dr. Bushell? In 1972, one of the first endodontic graduates from the University of Connecticut, Dr. Michael Rutberg, was in Hartford shopping at the old G. Fox Department store, and decided to have lunch in the cafeteria. While there, he remembered hearing that the famous endodontist Dr. Bushell worked in Hartford. He wondered if he would see him there on that day. Suddenly, Michael noticed this distinguished gray-haired, middle-aged gentleman with a white lab coat and ruler in his pocket. Michael thought that it must be Dr. Bushell. So he approached the man and said, “Excuse me, sir, but are you Dr. Bushell?” The man replied “No, I’m the tailor at here G. Fox, but I know Dr. Bushell well. He’s done two molar root canals and a surgery on me. His office is up the street at 242 Trumbull.”

**Dr. Bushell the Teacher**

Adolph was a natural teacher, lecturing and demonstrating a wide range of endodontic procedures at dental schools and clinics here in the United States and abroad. Often, one would find general dentists and other specialists observing his technique and his demeanor with patients. In addition to freely sharing his knowledge, he was continually open to new ideas and approaches. Making dentistry easier was a mission for him. He had a tee-shirt made with his motto written on it,
“Work smarter, not harder.” With this in mind, Adolph designed self-contained endodontic dental carts that he used in all of his offices to increase efficiency. Years later, commercial dental companies began to offer similar units for endodontists.

He was always pragmatic. When dental residents came to him for help in designing their planned offices, he was immediately drawn to the darkroom space. He would say, “Here you’ve sketched in a 4x5 foot darkroom. That’s 20 square feet. You don’t need a darkroom more than 3x3 feet. That’s 9 square feet. So over thirty years of practice at $8 per foot rental lease, you have spent on those 11 square feet $100 per year wastefully, or about $3000.” In 1975 that was a lot of money!

Dr. Bushell made a significant contribution to his specialty in the early 70’s with his development of molar endodontic surgical intervention and root-end amalgam restorations. An article he published in 1982 with Dr. Robert M. Block in the Journal of Endodontics, “Retrograde amalgam procedures for mandibular posterior teeth,” is considered a seminal work in the field of posterior surgical endodontics and has been translated into many languages. Because of this publication, he was invited to lecture around the world, and subsequently became involved with the teaching and mentoring of other endodontists.

A former colleague, Dr. Joseph Cwikla, a practitioner in Florida, had a great story to tell about Adolph Bushell—a man he loved and admired. It seems that Dr. Cwikla’s former teacher, Dr. James Guttuso, former head of the Endodontic Specialty program at SUNY in Buffalo, NY and now teaching at Nova Southeastern University in Florida, had a faculty member perform root canal procedure on his maxillary left molar. The endodontist couldn’t locate the palatal canal. A crown was placed on the tooth, but after several years, a palatal abscess formed. He wouldn’t let the dentist do a palatal root surgery, but knowing that Dr. Cwikla had practiced with Adolph Bushell and had the surgical skill that it required, went to him for the surgery. This is just one more example of how far and wide Adolph’s surgical techniques—and reputation—had spread.

Dr. Bushell the Leader

Adolph founded and was the first president of the Connecticut Association of Endodontists. He taught for the first ten years at the University of Connecticut School of Dental Medicine’s endodontic residency program. Dr. Bushell was instrumental during the early development of the dental school, serving on the board of the “Friends of the University of Connecticut School Of Dental Medicine,” which supported the dean’s efforts in recruiting and long term planning. He also lectured extensively at other universities, both in the United States and abroad, where he served as a visiting professor in China, Asia, Europe and South America. Moreover, he had a leadership role as the co-curator of the Leonard Mencszer Medical-Dental Museum in Hartford, CT from 1996-2008.
**Dr. Bushell the Charitable Organizer**

Dr. Bushell’s trips as a dental specialist on the medical ship *Project Hope* brought him all over the world to places like Sri Lanka, Malaysia and Jamaica. In 2006 he went to a children’s compound in Cambodia with a volunteer group called Heal the Children. Later, he joined the same group in Guatemala to work on children with cleft palates, and traveled to South America along the Amazon in Peru with University of Connecticut dental students. Beginning in the 1960’s until recently, he made trips to Haiti to help set up dental clinics and do volunteer dentistry. Without an operatory or sophisticated equipment in these third-world countries, Dr. Bushell would seat a patient on a chair under a tree and extract teeth for some of the hundreds who stood in line for free American dental care. In addition, he helped found the Christian Dental and Medical Equipment Providers, Inc., a non-profit organization that sent dental and medical equipment to clinics, universities, and other health agencies worldwide. He later re-established this under the auspices of the Connecticut State Dental Foundation, collecting and sending equipment at home and abroad. His efforts were tireless, and he kept up his pursuit of helping others until his death.

When the Connecticut Mission of Mercy Project (MOM) was begun, Dr. Bushell was in the forefront and served in all five programs. His volunteerism and willingness to help and teach others were endless, no matter what the circumstances. Everyone always expected him to be at each of the MOM venues—he was such a respected and admired presence. Now there is a void where this calm and reassuring dentist once sat and gave dental care to those waiting in line.

**Dr. Bushell the Awardee**

For his wide range of services, for his dedication to his profession and to his community (both nationally and internationally), Dr. Bushell received numerous awards and honors, including FACD, FICD, PFA, and the prestigious Daniel Lynch Award in Connecticut. The honors ranged from meritorious service, to certificates of recognition, to being named one of Connecticut’s top dentists in Hartford and Connecticut magazines—all were richly deserved accolades. Among these were the prestigious “Paul Harris Fellow Award” from the Rotary International Club for Humanitarian Service, along with the Connecticut State Dental Association’s Service Award, and the Hartford Hospital’s Humanitarian Award. He was especially proud of being honored in 2010 in San Diego by the American Association of Endodontists with the “Lifetime Dental Community Volunteer Spirit Of Service Award.” There are so many organizations and countries that honored this most caring of professionals that the complete list is too long to mention here.
Dr. Bushell the Man

As a human being, he will be remembered for his humility, kindness, pragmatism, generosity, integrity, and honesty. Dentistry was the love of his life, as was his dedication to caring for people from all walks of life. It wasn’t about money—it was about getting people out of pain. If there was any question about the need of dental treatment, he would say, “If we make a mistake, let it be not to treat the case now because we can always treat it in the future.” His honesty was apparent in all that he did and said.

In a world where we speak of “Type A” personalities and stress-related illnesses, we never speak of the “Type Z” personality: a phrase coined by Dr. Bushell’s wife, Bibi, to describe her husband. He was a Type Z—the embodiment of Zen—always calm and stoic, never stressed or angry or frustrated. No matter how difficult a surgery or a calcified canal, he focused with tunnel vision until he was satisfied with the outcome. He had a sign in his office that read, “If anyone here is going to have a heart attack, it isn’t going to be me!” and that is how he lived his life. One day in the Hartford office, a windy rainstorm broke the large window in his operatory, letting in the harsh elements. While everyone panicked, he calmly got up, put a lead apron and coat over the patient, and continued until the root canal procedure was done. On another occasion, after his last patient, he went into his office to change his clothing; the patient returned momentarily with a question, so Adolph came out in his boxer shorts and undershirt to speak to him. Nothing fazed him; he was the epitome of a stress-free personality. And then there was his dry sense of humor, and witty remarks that made people laugh until he took his last breath.

He was always available to patients in pain—24 hours a day—often in the wee hours of the morning, be it during rain, sleet or snow. His wife, Bibi, tells the story of how he received a phone call at 11:30pm on a snowy, wintry Saturday night from an elderly woman—a patient who had minor pain but no pain medications available. Adolph told his wife, dressed in her nightgown, to start the car. She drove him to the local convenience store just before it closed at midnight, so he could buy some over-the-counter pain medication. They drove to the woman’s home, and he delivered it free of charge. However, the lady was lonely and while Bibi waited patiently in the car, the elderly woman dragged Adolph throughout her house showing him her antiques. He obliged, not wanting to offend, and after 20 minutes emerged to his somewhat-chagrined waiting wife! But this was Adolph...the old-fashioned doctor administering to those in need without ever considering it an inconvenience.

Adolph was a nurturer. He loved to buy scores of bicycles at tag sales to donate to poor children through the Rotary Club in Hartford. He made delicious chocolates and his famous cashew brittle—sometimes giving them to patients after a dental procedure! He used his “magic hands” as a silversmith to create works of art, and gave jewelry-making classes at the Connecticut State Dental Association winter meetings he organized in the Caribbean. A lover of gardening, he planted hundreds of blueberry and raspberry bushes and flowers along public roads. But he was especially...
proud of his giant fig trees that kept producing fruit despite the harsh New England climate.

Adolph and his wife Bibi shared 30 years together. Both were fortunate to have had such a close relationship as they shared work and play with love and affection. She was always at his side, willing to pitch in. So when Adolph told her that at age 84 that he wanted to sign a three-year lease and build a new office at 61 South Main in West Hartford, she was surprised and said, “But Adolph, you’re 84!” He replied, “So what! We’re healthy until one day we no longer are…so why worry about the future—one has to live in the present! I love what I do and will do it until I no longer can, regardless of age.” And with that, construction began. Five months later Adolph moved into a brand-new office to continue doing what he most loved…endodontics.

At the end of his life while in hospice for a few days, he kept up his sense of humor and dry wit. When the nurse asked Bibi about when they first met, she said that Adolph looked like a movie star; “He used to be so handsome.” Without missing a beat, Adolph chimed in with a smile, “What do you mean, ‘used to be?’” Up until the end, he was calm and accepting of death, saying “I am 90 years old, and am fortunate to have had a very good life doing what I most love.”

**Dr. Bushell the Man for All Seasons**

Following his retirement from clinical practice, the Connecticut Association of Endodontists prepared a recognition dinner for Dr. Bushell. The Master of Ceremonies, Dr. Kenneth Sunshine, had the laborious task of reading the incredible CV of Dr. Bushell to a whisper-quiet room. At the conclusion the membership stood united and delivered a lengthy and heartfelt ovation in recognition of the accomplishments of the man they knew as the Father of Endodontics in the State of Connecticut. At the conclusion of the ovation everyone sat down and looked to Adolph’s table for the response from the guest of honor. Adolph was seated with his back to the crowd and then he slowly rose, turned to the membership and said, “Well, don’t believe everything you hear.” The crowd was taken aback—but all of a sudden there was another round of applause and laughter! In the face of praise, he was his humble, gracious self with a bit of dry humor thrown in to enhance the moment.

Dr. Bushell was the true image of “A Man for All Seasons.” He was someone whom all of us should aspire to emulate and who deserved all the kudos and acclaim he earned over a long and fulfilling lifetime. He will be remembered for his courage, vision, talents, even temperament, pragmatism, and most of all his spirit of giving to mankind. There is no person more deserving of a memorial tribute and a legacy established in his honor than our colleague and friend, Adolph Bushell. Today the Connecticut State Dental Association and University of Connecticut Dental School have established the annual “Adolph Bushell Volunteer Faculty Award.” Other plans are in the works to establish a legacy so well deserved by this remarkable man.

**Acknowledgements**

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The Nitrous Oxide “Dream” of Cora Gray: A Dental Anesthesia Story of 1884

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In the September 1884 issue of Frank Leslie’s Popular Monthly magazine, a fictional dramatic short story was published concerning the dental use of nitrous oxide. Entitled, “Cora Gray,” it was written by the well-known American journalist and poet John Whittaker Watson (1815-1848), who authored hundreds of sentimental, tragic and dramatic poems, serials and stories concerning the destitute lives and deaths of downtrodden young women of that time.1-2 His greatest poetic effort, “Beautiful Snow,” (1869) tells of a young prostitute who freezes to death in a snow bank.3

Watson, born in New York City, was educated at the University of New York, where he studied medicine. He also developed and used his skills as an engraver, journalist and writer. Watson obviously based his imaginative narrative on his medical knowledge of nitrous oxide and its physical and psychological side effects when inhaled. The story centers around the dreamlike romantic experiences of a 19-year-old female dental patient while she is under the effects of this gas. It explicitly depicts the administration of nitrous oxide and the resulting erotic visions and hallucinations that the young patient experiences. We make reference to other cautionary scientific writings from the late 1800s, in order to point out and clarify the potentially negative repercussions of nitrous oxide when administered to female dental patients without the presence of a third party. The ethics and propriety of anesthesia administration remain as perennial questions in dentistry to this day.

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Background

In 1772, Joseph Priestley (1733-1804), an English clergyman and chemist, isolated and described properties of nitrous oxide. At room temperature, nitrous oxide is a colorless, non-flammable gas with a slightly sweet odor and taste. Beginning in 1799, the use of nitrous oxide as a recreational drug at “laughing gas parties” became very popular, primarily taking place for members of the British upper class. In 1800, the English chemist Sir Humphry Davy (1778-1829), after personally experiencing the exhilarating effects of inhaling this gas, concluded that it seemed to be capable of drastically reducing physical pain, and thus might be effectively used during surgical procedures.

Dr. Horace Wells (1815-1848), a leading dentist of Hartford, Connecticut, is credited with initially and successfully using nitrous oxide gas as a dental anesthetic. On December 11, 1844, Dr. Wells had his associate, Dr. John M. Riggs, extract one of Wells’ own maxillary third molars while he was under the influence of this inhaled gas. The procedure proved to be painless. Thus, Wells has often been cited as the “Father of Surgical Anesthesia.”

However, the common employment of nitrous oxide gas for tooth extraction was not generally accepted by American dentists until 1863. During that year, Gardner Quincy Colton successfully initiated its experimental use in numerous clinics, located both in New Haven, Connecticut and in New York City. By 1868, oxygen was being mixed with nitrous oxide in order to make prolonged anesthesia much safer. Over this five year period, the members of the Colton Dental Association used this gas for painless tooth extraction more than 75,000 times. In 1887, Colton went to the Paris Exhibition, where he introduced to the world his positive findings on nitrous oxide. By 1900, many general dentists throughout America were doing extractions with the aid of nitrous oxide gas.

Our Titular Heroine

This story begins with a detailed description of the fetching Miss Cora Gray.

Nobody could help loving Cora. She was just nineteen, very beautiful, unaffected, and with a voice as soft and musical as voices can well be. She was inclined to be tall, with a lithe, graceful form and movement that fascinated any looking at her as they might be fascinated by the flight or pluming of some brilliant bird.

Cora is an orphan. She lost her father when she was 12, and her mother just a year before we are told of her unusual story. After Cora’s mother passed, she moved into the home of her father’s brother, John Gray. Her uncle John and his wife live on a farm one half mile outside of the fictitious village of Croyden, New York, which is reported to be about 80 miles from New York City. Her life with these two disagreeable relatives is very unpleasant:

Uncle Gray was penurious to the last degree… Aunt Gray chafed under the meanness of her husband… she was ill-natured and carping; consequently, between the two, Cora did not have a very happy home, and though it was the day before Christmas, the poor girl was not troubled with any very joyful anticipations connected with the day.

Cora Notices Dr. Oscar Morgan

On December 24, Cora has an intense conversation with her best friend, Mabel Dean, a pretty, good-natured, “but somewhat uneducated girl of twenty two,” who lives in Croyden. Their talk centers around the twenty-five-year-old local dentist, Dr. Oscar Morgan. Having closely observed this professional man for some time, Cora begins the conversation:
“He’s the handsomest man I ever saw, I think, and all the girls in the town are going crazy over him; I’m almost so myself. And I’m afraid that if I wasn’t already kind of partly engaged, as you may say, I’d set my cap straight at him!”

Mabel counters:

“Oh, but a dentist! What could induce a man to choose such a profession? There seems to me something repulsive about it.”

Defensively, Cora shoots back:

“Repulsive! Well, I can’t see what there is repulsive any more than a doctor, who cuts off legs and arms, and all that sort of thing. And as to there being anything repulsive about Dr. Morgan—for, you see, he is a doctor, a real doctor, anyhow—why, it’s absurd. He’s just as nice in his clothes as anybody I ever saw in my life.”

Cora’s Christmas-Eve Toothache

As Christmas approaches, Cora is suffering both emotionally and physically. Not only is she unhappily tethered to her sour-faced aunt and uncle, but has been plagued with a dull, heavy toothache for several days, which proceeds from the only unsound tooth in her head. The throbbing pain is almost more than she can bear:

Sometimes it was a dull, steady ache, and she would sit, holding her head between her hands... neither her uncle nor her aunt extended any sympathy toward her for that. It was only a toothache, and the old couple had known that in every variety, until they had not a tooth in their heads. In fact, they had very little sympathy with her in anything... Cora sat down to think... Wasn’t it bad enough to feel that she had nobody to love, none to caress, and nobody to love her? Why must she also have a toothache on this festive occasion?” ... And this was Christmas Eve, she thought in her pain and distress, as the darkness came down, and the moon came slowly up, and made the snow glisten like heaps of diamonds. She looked toward the town and could see the lights dancing, and fancied she could almost hear the sounds of merriment. She might have been there among her friends—she had received several invitations to join the parties—but for this terrible toothache... At last, disgusted with herself and the whole world, she crept away to bed, crawled between the blankets and tried to sleep, but without success. It was simply toss, toss, toss, turn, turn, turn, and groan, groan, groan, until the daylight came—Christmas day.

Cora’s Christmas-Morning Visit to the Dentist’s Office

Surprisingly, on that holiday morning, while her skin-flinted uncle is drinking his coffee, he seems to be concerned about her aching tooth. “Why don’t you have the darned thing out, Co?” he asks, “There’s a new dentister in Croyden, and he’ll whip it out for you in a minute, and not charge you a cent, if you’re a mind to.” (Most likely, he is also thinking about what such a procedure would cost him—before he concludes that a beautiful damsel in distress like Cora would be treated at no cost.)

Almost crazed by the pain, Cora puts on her bonnet, throws a shawl about her shoulder, and soon finds herself ringing a bell that leads into the office of Dr. Morgan. Almost instantly, he stands before her:

He was handsome, thought Cora, for he was. Not very tall and finely formed. About twenty-five years of age, dark complexion, brown eyes and brown hair, with an equable, mild expression of face, faultless white hands, and unimpeachable dress, made up the person of Oscar Morgan. “I needn’t ask you, miss,” he said in a soft, sympathetic voice that sounded like music to Cora... “I see that you are a victim to that fiend of fiends—toothache. Your face shows it. Why have you borne it so long?—for your face also shows that your distress has not been for an hour, but for several days.”

After examining her teeth, he comments,

“You have beautiful teeth, and I don’t know what right that ugly fellow that has been giving you so much trouble has to be among them. But nature will assert itself. He is one too many among them, and is the only one that is in the slightest degree decayed. Under ordinary circumstances, I should fill it, but I see that it crowds the rest, and must come out. Shall I administer the gas or have you the courage to stand before this weapon, without? ... The pain of drawing a tooth is only one of a minute, and if you take the gas there is absolutely no pain whatever. I have been making fresh gas this morning. A pretty employment for Christmas Day.”
Cora’s Fanciful “Adventures” Begin

After Cora gives her consent to commence with both the gas administration and the extraction, Dr. Morgan advises her to think of something pleasant as she is going to sleep, thus allowing happy thoughts to fill her mind while she is in her drug-induced state.

As he is giving her these instructions, Cora notes how handsome he is, and how deftly and gracefully he handles the burnished silver nitrous oxide mouthpiece as he places it between her lips. Almost immediately, she is conscious of experiencing a nervous blush that she cannot control. She is shocked by what happened next:

“You are the most beautiful woman I have ever seen in my life, said Dr. Morgan, taking her hand gently and pressing it to his lips.” She knew that she ought to be terribly angry with him, a presumptuous stranger, for sharing such intimacies with her. However, she could not help smiling and feeling happy, because he was so earnest, and she saw nothing but genuine love beaming from his eyes. He continued: “Miss Gray, pardon me if this declaration seems too abrupt, but I can’t restrain myself from saying it. I may offend you, but if you will think one moment, you will see that I am truthful, and that I am not responsible for my own feeling. I love you—I love you most devotedly. From the instant I first saw you, which was before today—for I have seen you walking on the streets of Croyden, and found out who you were—I loved you, and have wished for this moment that I might tell you so. You will give me hope, Cora, you will let me love you, and you will try to love me in return? … Give me one little word of encouragement, one word of hope. Say that you will try to love me.” … Before she could respond, Dr. Morgan caught her up in his arms and before this unresisting girl knew his purpose, he pressed a burning kiss on her lips. “Oh, my darling!—my darling!” he exclaimed, wildly, “how happy you have made me! But,” he continued, lowering his voice and looking sadly into her eyes, while he still held her in his arms, “Cora, I am poor!”

Cora tells him that she does not care how poor he is. Even if he were a beggar in rags, she had enough wealth in life to give him all that he needed. She murmurs, “I love you, Oscar!” At this point, the dentist drops another huge surprise:

“Then my princess, you are mine forever!” he exclaimed, proudly, holding her off from him and looking into her eyes. “Unknown and poor I have won you, and now I confess to you, Cora, I am a powerful prince in the planet Mars, and I have come to earth in search of a wife—one who could love me for myself alone—and I have found her in you.” … Strangely enough, Cora was not surprised at Oscar’s declaration. He looked every inch like a prince, and she was now his true matching princess.…

“Fear not,” he said, in the sweetest voices. “Do not think my darling, that in asking you to wed me, it is to take you away from your home on earth. No, I have the power to pass from this planet to my own with the quickness of thought—a journey of a few minutes, at farthest—and return as quickly at will… I am rich, my Cora, rich beyond all earthly calculations… I can bring you countless gems such as this earth has never seen or heard, not only of those that the wealthy of your world possess, but a thousand sorts of which they have neither seen nor heard.”

Then, Oscar reveals to Cora in exquisite detail how there are many actual denizens of Mars, whom he personally controls. On Earth, they are seen as mythological spirit forms, with names like Ariel, Psyche, Puck and Venus. Although these creatures appear only in dreams and imaginations, artists and sculptors vividly depict them in paintings and in statues. However, on Mars, they are real entities. Oscar demonstrates to Cora his earthly power over these true Martian inhabitants:

“And now, my darling little Cora, we will unloose some of these creatures who are now bound up in marble and canvas, that you may talk to them. They will tell you of the glory and greatness of my native world—a far greater world than this—and of the realms they inhabit in this and other worlds. Here, for instance, are three spirits in what you people of the earth call immortal marble. Why immortal? A few thousand years crumble it into dust, while those whom it represents endure forever. These three figures are Earth, Sea and Air. I will give them life.” And as he spoke, Oscar waved his hand,
Figure 1. Cora Gray says, “Where is my tooth?” “It is here,” said the doctor, holding up the offending molar.¹
and straight-a-way, the tiny group of marble—scarce a foot in height—sprang into life and upon the table.

Continuing his odyssey, Oscar now transports Cora to a Christmas feast banquet, held in a huge, magnificent hall with elegant furniture, paintings and statuary. Suddenly, Cora finds herself now attired in a lilac satin gown, embroidered with flowers so beautifully natural that they seemed to stand out in bold relief. Down the front of her dress, around her neck and upon her arms, are the most exquisite jewels. Cora turns to Oscar and exclaims, “Oh, I am very happy! I do love you so!”

Cora Returns to Earth

With these words, the grand hall, the table, the attendants, and everything but Oscar Morgan, disappeared like a flash, and even he had rid himself of his beautiful costume jewels and all, and stood before her in his simple suit of black, while she sat in the dentist’s chair.

For almost a minute, Cora stared wildly at the doctor, and then, she looked about the room and up at the clock. There was something strange about all of this. She remembered perfectly that the last time she had looked at it, was just before Oscar had led her out into the grand hall, when it was exactly eight minutes of ten. It was now two minutes of ten, only six minutes later!

As she touched her tongue to where her aching tooth had been, it was not there, and in her astonishment she exclaimed:

“Where is my tooth?” “It is here, Miss Gray,” said the doctor, holding up the late offending molar. (Figure 1) “Then you gave me the gas, doctor?” she said, with a gasp. “Yes, Miss Gray,” said the doctor, laughing. “You grasped the mouthpiece and held it so firmly that I had some difficulty in getting it away from you. I hope the sensation was not unpleasant?”

“Delightful!” Exclaimed Cora. “I had the most beautiful dream.” And then, with a profusion of thanks, Cora slipped on her bonnet, and tendered to the doctor a piece of gold commonly known as half an eagle.

“In particular, I would suggest old Mrs. Stebbins, whose little house lies in your path. It will be a fortune to her. And as to myself, I only claim the privilege which is always accorded to the physician or surgeon, of calling on his patients to see how they progress. Therefore, if you have no objection, I will this evening call on you and see if you require my further professional services.”

This request was conceded, the call made, but Cora never told her nitrous-oxide dream to anyone, that is, until she revealed it to Oscar Morgan, after they were married four months later, and they were on board a steamer making their honeymoon trip to Europe.

Anesthesia-Induced Vivid Dreams

In his classic book, Man Against Pain, Howard R. Raper recalls the words of the pioneer experimenter Sir Humphry Davy in 1880:

“I existed in a world of newly connected and newly modified ideas. I theorized; I imagined that I made discoveries. My emotions were enthusiastic and sublime… As I recovered my former state of mind, I felt an inclination to communicate the discoveries I had made during the experiment. I endeavored to recall the ideas—they were feeble and indistinct. Nothing exists but thoughts! The universe is composed of impressions, ideas, pleasures and pains.”

Later, Davy explains that actually he had made no discoveries, but only imagined making them. Raper expands on this conclusion, saying that while under the influence of nitrous oxide, many have “experienced the sensation of being able to see into the heart of things; of understanding the great “why” of the universe.” However, he adds that upon awakening, these individuals could neither recall, understand nor clearly express their so-called revelations. Raper continues:

Anesthesia dreams not infrequently revolve around something the patient has seen just before taking the anesthetic. Thus the anesthetist or the nurse may figure into the dream… If a sculptural group is one of the last things the patient sees before passing under the influence of the anesthetic, the patient will frequently dream that these stone figures (memory) come to life (imagination).
Erotic/Romantic Dreams

For legal and personal reasons, dental professionals of the last century came to address anesthetic dreams as a potentially hazardous professional problem. Raper explains:

In the gay days of tight, waist-pinching corsets, when nitrous oxide was given in a dental office, it was necessary to loosen or remove the corsets to facilitate breathing. During this period, much was heard of the amorous dreams that women were likely to have under anesthesia, and text-books and professors emphatically warned of the necessity of having a third person present when giving an anesthetic. Dr. Dudley Buxton reports a strange case in which a young woman accused her dentist of attacking her while anesthetized. Her mother and father, and her physician who gave the anesthetic, were all present during the operation. They all assured her, as undoubtedly the dentist did also, that she had not been attacked; but she stuck to her story.

In the popular 1882 dental school textbook, Manual of Dental Surgery and Pathology, Dr. Alfred Coleman stated:

Anesthetics do stimulate the sexual functions; the anogenital region is the last to give up its sensitiveness. Charges made by females under the influence of an anesthetic should be received as the testimony of an insane person is. It cannot be rejected, but the corpus delicti aliunde rule should be insisted on. Dentists or surgeons who do not protect themselves by having a third person present, do not merit much sympathy.

In 1887, Guilford further explained how nitrous oxide induced dreams could affect dental practice:

As in dreams during sleep, where portions of the brain are active while others are at rest, so in anesthesia, where it is not profound, the patient in most cases has dreams of one sort or another, the character of which no one can foresee. In many cases they are erotic in character, and may so strongly impress the mind of the patient as to produce the conviction, upon restoration to consciousness, that the circumstances were real and not imaginary.

In this way, a perfectly honest patient may place an equally upright operator in a most embarrassing situation by accusing him of that which he is entirely innocent. Cases of this kind have occurred, and are on record, resulting, in certain instances, in legal proceedings which proved detrimental to the character of the operator and materially injurious to his professional interests.

Likewise, in 1902, Charles R. Hambly, DDS, in his 11th edition of The Practice Builder: A Treatise On The Conduct and Enlargement of A Dental Practice, wrote these cautionary words:

Be careful in your treatment of married women; do not for one instant engage in conversation that savors of questionable subjects, and do not permit yourself to be drawn into such conversations. Married women are the most reckless of all those who exhibit freedom of speech and action... Every dentist is advised by his professors and his elders to always have a third person present when a general anesthetic is to be administered to a woman. Failure to do this has brought many men to a life of misery... Manifestations of erotic sensation during artificial anesthesia have been witnessed, but dreams of a sexual character are doubtless more frequently experienced, and very vividly; women undoubtedly are more liable to them than men, especially when the administration of the anesthetic takes place at or about the time of periodical congestion.

Postscript

In this fictional drama published 127 years ago, John Whittaker Watson penned a bona fide classic. In this story, he has included his usual, most pressing dramatic theme (the hard lives of down trodden and defenseless young women), but it is not his major emphasis. Rather, he has focused on one vulnerable young woman’s nitrous oxide-induced fantasy, its initial sense of reality, and finally, its surprising unreality. This imaginative tale was intended to engage, shock, surprise and entertain the reader.

In the late 1800s and early 1900s, American dentists typically worked alone, without dental assistants. The risk faced by professional caregivers who treated women with no third person present had already been recognized and addressed at this time. In fact, a number of dental authors had alerted both dentists and surgeons about
their professional vulnerability under these circumstances. They pointed out that some female patients who had received nitrous oxide experienced erotic dreams about their treatment providers.\textsuperscript{7-9} Thus, professionals who used this anesthetic were cautioned to protect themselves, both personally and professionally by not working alone during and after its administration to women.

Of course, men can also have nitrous oxide induced dreams. This theme was portrayed in a 1936 a Warner Brothers short film starring Phil Harris (1904-1995). Harris, an American actor, comedian, jazz musician, singer and songwriter, played the main character in the short Double or Nothing, which was nominated for an Academy Award in the category of Best Short Subject.\textsuperscript{10-11} It was later remade as a feature-length film of the same name.

The plot of this film is both simplistic and entertaining, with Harris playing the role of a movie stunt double. During a fight scene in a saloon, he takes a punch in the face, which knocks him unconscious and loosens one of his teeth. This misfortune results in his visit to the dentist, who subsequently gives him nitrous oxide to ease his pain, during the extraction of the injured tooth.

While the dentist and his assistant perform their professional duties, the patient experiences exceptionally vivid nitrous oxide dreams, which cause him to believe that he has entered “Double’s Heaven.” In this surreal setting, his character, a silver screen “stand-in,” meets and interacts with other movie star doubles, such as those who stood in for Deana Durbin, Buddy Hackett, Mae West, Zazu Pitts, Charles Laughton and Joe E. Brown. During his adventurous interactions with these lively characters, he envisions lavish scenes in a king’s garden, on a pirate ship, and in lush Hawaii. In the midst of these exotic experiences, he and his companions exuberantly sing, dance and cavort around.

References


On the Management of Root Canals in Teeth that Exhibit a Draining “Fistulous” Tract

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The clinical management of teeth with necrotic pulps, with and without draining fistulous tracts, has been the subject of a wide range of personal opinions and techniques for well over a century. Fortunately, prior to the advent of the focal infection theory in the early 1900s, dental clinicians made every attempt to treat and maintain these teeth as opposed to wholesale extraction. While the treatment approaches by some may have been questionable, others claimed great success. The success claimed was empirically-based, but those that achieved this goal used methods and techniques not dissimilar to present-day practices. However, the proponents of the focal infection theory failed to consider these achievements prior to their advocacy of extracting all teeth with necrotic pulps or those that demonstrated an active infection. This paper highlights some of the prevailing concepts from opposing treatment regimens in the late 1800s in which extensive efforts were made to retain teeth.

Prior to the diatribe by Hunter in 1910 concerning the restoration of teeth with “mausoleums of gold” over septic conditions, and the concepts of focal infection and elective localization by Billings and Rosenow, the dental profession was actively espousing tooth retention in cases of necrotic pulps with or without draining “fistulous tracts” (current terminology used is sinus tract) as opposed to wholesale extraction. In 1895, Dr. C. N. Johnson of Chicago provided the dental profession with two papers on how to treat teeth with and without a fistulous opening. When no tract was present, he felt that the teeth must still be managed as though there was a blind abscess present.

In the treatment of teeth with pulps dead but with no fistulous opening, where there is any doubt as to whether a blind abscess exists it should invariably be treated as if there were one. The most expert operator cannot always determine in advance whether he has a case of blind abscess or simply a putrescent pulp-canal with no complications beyond the apex, and it is only common justice to the patient to proceed in the most cautious manner.

To manage these cases of pulp necrosis, he

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stressed asepsis with the application of the dental dam; immediately upon opening into the pulp chamber, a non-irritating and non-effervescent antiseptic solution was placed in the tooth. The latter dictate was emphasized to prevent movement of any “septic matter” beyond the end of the root, and therefore he was opposed to the use of hydrogen peroxide or pyrozone (today referred to as liquid carbon dioxide). Once the irrigant had time to act in the tooth, he removed the solution with an absorbent point and proceeded to enlarge the opening into the chamber and canal to permit penetration of additional antiseptic solutions. Subsequently, alcohol was used to dry the chamber.

“It must be manifest that the dryer we get the canals the less chance there is for micro-organic life to exist, and that when an antiseptic is applied the greater will be the amount taken up by the tubuli.”5 (Interestingly, the recognition of bacterial contaminants in the tubules might not have been a priority had W.D. Miller not brought about the recognition of the oral cavity as a focus of infection in 1891).6

Once Johnson obtained the desired dryness, the canals were again flooded with antiseptic and left until the next sitting. Ironically, the pulp chamber was sealed with gutta-percha, thinking that this was an impervious seal; however, as we now know, this material by itself cannot seal any dental cavity. Hence, not knowing that leakage into the chamber was probably occurring, the treatment proposed by Johnson was most likely prolonged until all signs and symptoms ceased, which probably resulted in a number of sittings. To his credit, however, if there were any occurrences of problems for the patient, they were to be seen in twenty-four to forty-eight hours. If, at the end of a week, “no symptoms of irritation have been felt, and if the canals are sweet and clean on the removal of the dressing, the roots may be filled.”5 If, however, “in treating these teeth  where there are no fistulous openings, if the dressing after the first treatment shows indications that there is a blind abscess through a weeping of pus in the canal, the treatment should be continued till all such weeping stops and the abscess heals.”5 When there was a voluminous flow of pus, Johnson used a broach in the canal in an attempt to empty the abscess to a point where “pus stops and blood flow begins.” When the blood flow ceased, he dried the canal(s) and placed additional non-irritating antiseptics. “If a tooth in this condition will remain tightly packed for a week without trouble, and if the canal is dry and the dressing sweet on removal, the root may be filled.”5 Note that during this entire process, no attention was given to the actual enlarging and cleaning of the root canals, therein potentially leaving tissue debris and bacteria in the canal, regardless of the antiseptic used.

Later, in the same issue of Dental Items of Interest (1895), Johnson addressed “Filling Pulpless Teeth with Fistulous Opening.”7

First the soft, decalcified, infected dentine should be cleaned from the cavity, and the pulp chamber thoroughly opened up. The putrescent contents of the canals should be removed as perfectly as may be by way of the cavity, to accomplish which the chamber and canals should be flooded with an antiseptic, and this absorbed with cotton or bibulous paper. When the canals are cleaned the abscess should be injected with the antiseptic through the canal, and the process kept up if possible till the medicine appears at the fistulous opening on the gum.

To achieve this outcome, cotton was saturated with antiseptic, packed into the cavity and forced into the canal with a mass of rubber obtained from vulcanizing plates. This procedure was often done in one canal of a multi-rooted tooth, based on the flow of the pus that was observed upon entry into the chamber. If the abscess and fistulous tract were of long standing, the canals were dried with alcohol after the first application of antiseptic, followed by and additional application of such. “This insures a more thorough saturation of the tubuli with the antiseptic, and the tooth will return in sweeter condition than if the drying had been omitted.” “When the patient returns (after one week), and the fistula is found perfectly closed, the root may be filled at this sitting, the same process being followed to filling that was advised in a root without fistulous opening.”7

Occasionally Johnson would encounter a fistula that did not close after one week, and he felt that if the canal had been cleaned properly,
On the Management of Root Canals in Teeth that Exhibit a Draining “Fistulous” Tract

it “would not account for the persistence of the fistula”—indicating that the source of the problem was beyond the apex. His approach at this point was to use a “more vigorous medication than that applied at the first sitting.” What was required was “more stimulation and cauterization to break up the chronic condition.” To achieve his goal, he used a 95% solution of carbolic acid that was injected until it appeared at the opening of the fistula, followed by sealing the acid in the tooth for at least a week. Even though he did not recommend the use of pyrozone 3% in the case of the blind abscess, he did indicate that if the discharge was great through the tooth and from the fistulous opening, he would use the pyrozone prior to the carbolic acid. If the fistulous opening persisted even after multiple applications of both substances, he felt that the case “must be fought vigorously, the treatment being directed by the way of the fistulous opening instead of the through the tooth.” If multiple treatments were necessary, the tooth was to be left undisturbed for at least a month.

In June of that same year (1895), Dr. Angus D. Cameron from Hanford, CA, in a short submission to the Dominion Dental Journal, noted that “the busy practitioner may not have time to resort to this proceeding as described by Dr. Johnson” to manage teeth with fistulous openings. “Now let me tell you how to do the operation, and do it quickly.”

After getting a direct opening into the pulp chamber, and thoroughly washing out its contents with warm water from a syringe, apply the rubber dam, and dry out the pulp chamber with cotton and hot air, then with Gates-Glidden drills of different sizes, enlarge the canals to the apex; now twist a few shreds of cotton around a Donaldson broach [Fig. 1, referred to also as Donaldson Nerve-Bristles], and saturating in pure carbolic acid and iodoform, use as a piston until the medicament appears at the fistulous opening, and do not cease until it does appear. Now your tooth is ready to fill; do not wait a day or a week, but go right ahead and fill solidly to the apex. I use shreds of cotton saturated with chora-percha, and touch of iodoform, and have yet to see the first case of this kind come back to me for treatment in a practice of fifteen years.

On the surface, what appears to be the keys to Cameron’s success were the enlarging and cleaning of the root canals along with the use of effective medicaments.

To a certain extent, Dr. Cameron’s claimed achievements reflect contemporary practices in the management of teeth presenting with sinus (fistulous) tracts. These include complete root canal procedures in one visit in most cases, followed by healing of the tract within days or at the most 1-2 weeks. Occasionally, surgical management of the periapical lesion may be necessary to achieve ultimate healing, although extraction may have been chosen years ago as the only way to eradicate both the bony lesion and the sinus tract. However, in the latter half of the 20th century, there were still advocates of using cautery on fistulous (sinus tract) stoma when they did not heal after root canal enlarging, cleaning and medicating. This approach was advocated due to the empirical concept that the tract may have been epithelialized because...
of its long-term presence. Data does not support this finding as being common, and while few valid studies on the healing of these particular lesions are present, they tend to indicate that there is no evidence that an epithelium-lined sinus tract will not heal after appropriate treatment. A more likely explanation for lack of healing of a sinus tract would focus on the presence of resistant organisms, a true cyst, or embedded biofilms and endotoxins in the root apex that could not be removed during root canal procedures. From a speculative standpoint, it might have been possible that both Drs. Johnson and Cameron were able to eradicate these irritants with the techniques they advocated in the late 1800s.

References


“They’ll Do it Every Time”—
Four Early Dental Comic
Strips by Jimmy Hatlo

On February 5, 1929, James C. Hatlo (1897-1963), originally a sports cartoonist for the San Francisco Call-Bulletin, created the comic strip “They’ll Do It Every Time.” Later syndicated by Hearst’s King Features, it soon became popular in newspapers throughout the nation. Hatlo produced this award-winning cartoon for 34 years until his death at age 66. Subsequently, two other artists, Bob Dunn and Al Scaduto, sustained it until February 10, 2008, when it was finally retired after 80 years.

Although “They’ll Do It Every Time” did not feature any central characters, it did contain several familiar personalities. “Henry Tremblechin” and his mischievous young daughter “Little Iodine,” became endearing favorites. The featured gags were displayed in a single or two-panel format. In the two-paneled strips, the initial one depicted some form of deceptive, hypocritical, scheming, unwitting or pretentious human behavior, and the second explained the true meaning of the original situation. These gags portrayed a wide variety of everyday happenings and focused on their absurdities, ironies, frustrations and misfortunes.

We here present four dentally-oriented Hatlo strips printed between May 1938 and August 1940. Although these strips were produced over 70 years ago, they still remain applicable to current dental situations. Human nature remains the same, and we can still say today, “They’ll Do It Every Time!”

Continued on the following pages…
“They’ll Do it Every Time”— Four Early Dental Comic Strips by Jimmy Hatlo

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They'll Do It Every Time!

Well, then, brother-in-law, dear—you'll start to straighten Olga's teeth on Wednesday and I'll come in at the same time for my bridge work. I don't know just when—ha-ha—we'll be able to pay you. But, after all, it's all in the family, isn't it?

Sure, Harry—it's all in the family—all in the family, hey? Ol' boy, Ol' boy? Do the same thing for you some day.

You couldn't straighten that kid's teeth with a sledge hammer. There's a near's work there and if he ever gets a dime for it, it'll be a miracle.

Yes—his mother-in-law was in yesterday. He's building up a fine family trade. He's in business for all of his relatives.

All that doc gets out of this deal is a headache. They'll do it every time.

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They'll Do It Every Time

—By Jimmy Hatlo

At a party Doc Yankum is a wash-out, he says less than the proverbial clam.

Who invited the sphinx? He hasn't said five words since he came.

I haven't heard him say that much—thought he was deaf and dumb.

I understand he's a dentist—or something.

But just let him get you in a dentist's chair with a fist full of hardware rammed down your throat—Oh, boy! That's different!

Who are you going to vote for? How's the wife? How's the kids? Does this hurt? What kind of car you got now? Seen Eddie lately? Etc., etc., etc.

Erik!

© 1938-1940 King Features Syndicate
John G.C. Adams: Father of Dental Public Health in Canada

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John Gennings Curtis Adams (1839-1922), Canada’s first resident dental missionary, was the father of Dental Public Health in Canada. He established, personally funded and operated the first free dental hospital in North America for poor children and their mothers in Toronto from 1872, three years before the founding of The Hospital for Sick Children; he later became their first dentist of record. He was a visionary zealot for prevention of decay, dental education, and treatment over extraction. Dr. Adams understood that neither parents (rich or poor) nor physicians were aware of the extent of pathosis present in children’s mouths. He petitioned individuals, lobbied politicians and unions and pressured dental organizations on the importance of twice-annual school inspections to demonstrate disease so that parents would seek care for their children. He wanted government-funded dental hospitals like his own to treat those who could not afford care. He realized his objectives and his reforms to prevent suffering, as Toronto school inspections began in 1911 and Toronto’s first publicly-funded free dental clinic opened in 1913. He was Canada’s first dental philanthropist and a visionary for preventive dentistry.
John Gennings Curtis Adams (1839-1922) was born and raised in southern Ontario, Canada. The son of a Methodist preacher, he married his wife Sarah in 1861, and began a family in the community of Drayton, where he owned a farm. After several years, he felt a religious calling to change his life and become a missionary to the poor. In 1870, he and Sarah sold their farm and walked with their four children over 80 miles to the growing city of Toronto. Now 31 years old, Adams began a four-year indenture in dentistry with his older half-brother, W. Case Adams, and thus became North America’s first resident dental missionary.1

By 1872 Adams had learned the rudiments of dentistry and, driven by his desire to help the poor, he opened the first free dental hospital in North America.2,3,4,5 Two years later he received his license to practice from the Royal College of Dental Surgeons. All hospitals of the day were rudimentary and financially brittle places for medical and surgical relief of disease, and were often founded and supported by churches or charitable groups. Following the Methodist tradition of public service, Adams personally paid for all treatment with the income from his dental practice.6,7 Adams’ free dental hospital preceded the free dental dispensary at City Hospital of Rochester by thirteen years5 and Toronto’s Hospital for Sick Children by three years. John Adams became the first dentist of record at The Hospital for Sick Children in 1883 and remained as their only dentist until 1890.4,8

Adams and his wife Sarah were regular visitors to the Toronto poorhouses and orphanages, where he performed dental services for both children and adults, and solicited patients to come for free treatment at his dental hospital. However, Adams’ interest in dental health went well beyond providing treatment for individuals; his dental missionary visits to institutions for the poor throughout Toronto and other cities, combined with his personal fee-based patients, gave him a unique perspective for his time. He observed that neither parents, teachers or physicians were aware of the extent and seriousness of children’s dental disease. He noted that educated parents of children who could afford to pay for his treatment were as unaware of the extent of caries and abscesses as were poor parents.9 Children’s complaints of dental pain were considered normal and often abscesses were not noticed until there was fever, swelling or an extraoral fistula.

Although John and Sarah regularly visited nearby institutions, they knew that there were children across Toronto in need of care who were largely inaccessible. They understood that the common pathway for access to all children, rich and poor, was their schools.9 Adams began visiting schools to perform dental examinations and recorded his findings for later analysis. He soon started lobbying for twice-annual dental screening examinations with reports to parents. Adams believed that once informed, it was the parent’s choice to seek treatment or to ignore the warning. However, he also believed that any parent who could not afford treatment for their child should have access to a “free hospital,” because care of the child was preeminent. By 1883 Dr. Adams’ mission hospital had expanded to such an extent that he rented additional rooms adjacent to his office and called them “Christ’s Mission,” where free treatment continued until 1896.3,4

Fig. 1. Christ’s Mission Hall and Dental Institute 1897 the building still exists at the corner of Bay and Elm Streets, Toronto, Canada.
Routine school inspections by Dr. Adams extended beyond Toronto to the rest of Ontario and other Canadian provinces, and to parts of the United States. He analyzed the records of his hundreds of school inspections and reported that while almost every child needed treatment, not five per cent had teeth filled, and thirty per cent had teeth so disgusting that, “no dentist would think of working for them until their mouths had been disinfected”.

Dr. Adams’ experience from school dental examinations, his religious mission to help the poor, and his intellect combined to consolidate his vision that prevention was the most important intervention for the pediatric population. Prevention of ongoing disease required early identification of needs, and timely treatment by restoration rather than by extraction, the preferred treatment of the day. His three key objectives were self-published in a booklet and a widely-distributed pamphlet:

1. In the hope of awakening Christian people to the absolute need of doing something in the way of providing for the preservation of the teeth of the children of the poor.
2. To give schoolchildren, in general, a chance to save their teeth with as little suffering as possible.
3. To improve the health of the children of the schools. The objective of the dentist should be to prevent suffering rather than to relieve it.

His efforts accelerated from 1892 onward as he lobbied local, provincial and national dental societies, civic and provincial government staff and politicians, and petitioned his patients and all who would hear him to disseminate his philosophies. Although his efforts to convince city officials to open free government-run dental infirmaries for the poor were unsuccessful, he was able to organize other dentists to treat the poor, trained religious missionaries to treat dental disease, and paid servants to search out Toronto children in need of care. Adams faced government apathy, professional disinterest and ignorance of the extent of dental disease in children.

In 1895, Adams made a presentation to the Ontario Dental Society entitled, “The Care of Children’s Teeth” to a passive and unreceptive audience. This prolonged and extensive extracurricular activity began to take a toll on his practice, the sole source of financial support for his mission. He was forced to temporarily close Christ’s Mission in 1895, but as patients continued to come to his private office next door, he was compelled to reopen it. He lobbied the press and in 1896 explained to a reporter from the The Mail and Empire, a daily Toronto newspaper, that he would need $1,000 per year to continue the free treatment, and pleaded unsuccessfully for support from the community and the municipal government. Shortly after, Adams was again forced to close Christ’s Mission, but he and Sarah continued to visit poorhouses and orphanages.

By the end of 1896, Adams secured the support of the Toronto Dental Society, and more importantly the influential Toronto Trades and Labour Council, to press the provincial government
for twice-yearly dental inspections in schools and free dental treatment for children who could not afford it. Under this pressure, the Ontario Board of Health heartily agreed to the importance of school dental inspections and deftly recommended that the municipal Boards of School Trustees and Boards of Health appoint dental inspectors and set up dental hospitals for treatment of the poor. This dumping of responsibility from the Province of Ontario to municipalities without funding or authorization to inspect schoolchildren held up implementation of Adams’ recommendations for a decade.

Adams’ address to the Ontario Dental Society in 1895, followed by the government of Ontario’s unfunded “support” of school dental inspections in 1896, began to awaken dentists to the idea that the health of the population beyond their practices needed their support. Strong presentations were made on preservation of the natural teeth to the Toronto Dental Society by Dr. Nathaniel Pearson in 1896, and a year later to the Ontario Dental Society by a noted author, Dr. Charles Nelson Johnson of Chicago.11,12

Sarah died in 1896. That same year, John Adams purchased a commercial building in downtown Toronto for $6000.2 Adams used the corner suite for his private practice, and the balance was Christ’s Mission Hall and Dental Institute. The facility opened in 1897 and John Adams dedicated it to both his deceased wife and his mother.

Events of 1899 weighed heavily on Dr. Adams. His half-brother and mentor W. Case Adams died in January. In May, the Dental Hospital and Mission Hall were seized by the City bailiff for failure to pay taxes of $200.13 Dental equipment, 5,000 preventive dentistry pamphlets,10 bibles, hymn-books, the organ and furnishings were all removed,4,14 forcing Adams to end his free dental treatment of over 1,000 children a year. He later noted, “Toronto was my first Mission Field,—God sent me to it 32 years ago. $50,000 would not repay for the money, time and work I have spent on the city’s suffering poor. Now I am forced to abandon them, or pay the city taxes for caring for the poor.”10(1902 addendum)

Adams maintained a small private practice until 1912. As he was involuntarily freed from patient care for the poor in 1899, he increased his efforts to achieve his public health objectives. He noted:15

Instead of standing over poor, frightened children wrenching out permanent teeth that might have been saved if I could have reached the children in time, I am now calling the attention of parents and the public to the serious condition of children’s teeth and asking them to organize dental hospital boards to cooperate with dentists in the cities and towns in making dental hospital provision for the poor, and in petitioning the legislature for an amendment to the school law, giving school boards, where the citizens desire it, power to require school children to have their teeth examined.

The profession was increasingly aware of the need for government support for the public’s dental health, but a strongly-worded resolution from the Ontario Dental Society in 1905 to appoint dental inspectors and financially support school dental inspections was ignored. Following a change in provincial government from the Liberal to the
Conservative Party in 1905, the Ontario Dental Society realized that neither party was interested in reforms to oral health despite constant pressure from Adams and the Society. The Toronto Medical Officer of Health rejected school medical inspections requested by the Board of Health in 1907, so approval of school dental inspections appeared hopeless. A decision was taken by the Ontario Dental Society to approach the public directly through an educational campaign organized through a new Educational Committee formed in 1909 with the support of a journal, *Oral Health*, dedicated to prevention of dental disease.

Dr. Albert Edward Webster, Editor of the *Dominion Dental Journal*, noted in 1910 that through the work of Dr. Adams, the Public School Act of Ontario had been amended to authorize school dental inspections, and cited Dr. J.L. Hughes, Chief Inspector of Schools for Toronto, as saying “the people of this city will some day erect a monument to his [Adams’] memory.” Dr. Hughes himself later wrote that, “…when I brought Dr. Adams first before the Committee of Management for this city of the Board of Education they simply laughed him out of court. Afterwards, when Dr. Willmott (James Branston Willmott, Dean of Dentistry, University of Toronto) came with Dr. Adams, the Board of Education united with others asking the Legislature of this province to pass a law authorizing boards of education to appoint dental inspectors.” Webster stated in 1910 that, “thirty eight years ago Dr. Adams began agitating in this city for the care of the teeth of children and it took until 1910 for the seeds sown then and since to bear fruit.” The Toronto Board of Education appointed a Dental Inspector (William Doherty) and initiated dental inspections of school children in 1911.

Two years later (1913), following the model of Adams’s hospital, the City Health Department opened a dental clinic for the poor, the first free municipally-funded dental clinic in Canada. The Chief of Staff was John Alexander Bothwell, who was at the same time the first Chief of the new Department of Dentistry (founded 1912) at The Hospital for Sick Children.

As late as 1912, Dr. John Adams published case reports of earlier mismanagement of dental infections by physicians. One such report describes a dental infection incorrectly diagnosed as tuberculosis by Toronto’s Medical Officer of Health that led to loss of a year and a half of school and a lawsuit; he also cites another misdiagnosis by physicians at Toronto General Hospital and The Hospital for Sick Children, who failed to diagnose a fistula as dental in origin.

John Adams retired in 1912 and died in 1922. His concepts of prevention over restorations or extractions, school dental inspections, and parent education and involvement, are core values of the specialties of Public Health Dentistry and Pediatric Dentistry. John Adams—farmer, dental missionary, zealot, reformer, and Canada’s first dental philanthropist—saw all of his ideals realized in his lifetime. His family grew to four sons (three became dentists) and five daughters; two of his dentist sons earned additional medical degrees and one, William Fawcett Adams, received a third degree in divinity, was an ordained minister in the Evangelical and Reformed Church, and became a medical missionary in China.

At a time when dentists had very little interest in treating children, John Adams, through his mission to the poor, understood the extent of
dental disease and the importance of prevention. He realized that improving the health of a population required more than individual treatment—it required institutional support. Canadian dentistry’s earliest dental philanthropist and leader in social reform, Adams’ grand legacy to every citizen of Toronto, the rich and its poor, and to early dentistry, was his visionary concept of preventive public dentistry through education versus curative treatment for the nation’s most valuable resource—its children.

Acknowledgements

Maria Buda, Acting Head, H. R. Abbott Library, Faculty of Dentistry, University of Toronto; Media Services, Faculty of Dentistry, University of Toronto; Catherine Morana, Archivist, Ontario Dental Association, Toronto.

References


10. Adams JG. School Children’s Teeth. Their Universally Unhealthy and Neglected Condition WITH REMEDY. (pamphlet, pp.16), Toronto, Canada. 1896, p.7.


13. Taxed Him Out. Dr. Adams Closes His Dental Hospital Because the City Will Not Grant Exemption. Globe and Mail, Toronto May 13, 1899.


**Image Credits**

*Figure 1.* Illustration from back page, Adams JG. *School Children’s Teeth: Their Universally Unhealthy and Neglected Condition WITH REMEDY.* Toronto, Canada, 1896 p.16.

*Figure 2.* Enclosure in Adams J.G. *School Children’s Teeth: Their Universally Unhealthy and Neglected Condition.* Toronto, Canada, 1896. Thomas Fisher Rare Book Library. University of Toronto.

*Figure 3.* Dowd JW. The mouth and teeth as factors in public health. In Trigger TC. Ed. *Educational Lectures on Dental and Oral Hygiene.* 1912, The Journal Press, St. Thomas, Ontario p.58

*Figure 4.* *Dominion Dent J.* 1910; 22(12): 562
Henri Gerbault

Henri Gerbault (Jean Louis Armand Henri Gerbault) was a French artist. He was born in Chatnay, Paris on June 24, 1883. Gerbault studied painting at École des Beaux-Arts. His painting career never materialized to a great extent, but magazines such as La Vie Moderne, La Vie Parisienne, Le Rire, and L'Art et la Mode published his cartoons. The cartoons were delicately drawn and many were of a satirical nature. Gerbault’s works included posters, magazine and advertising illustrations, and water color paintings. The advertising illustrations included numerous trade cards. Gerbault died in Roscoff, Brittany, France in October 1930, several years after the passing of his wife. Today, Gerbault’s posters, magazine illustrations and original works are still prized by collectors. Two of Gerbault’s French trade cards advertising ALCOOL DE MENTHE DE RICQLES are pictured.

In 1900 ALCOOL DE MENTHE DE RICOLES celebrated 60 years of use for whitening teeth and perfuming the breath. The product was a brand of peppermint water created in 1838 by French pharmacist, Henri de Ricqles. In addition to tooth cleaning and breath freshening, it was promoted as an antiseptic and recommended for indigestion, bad breath, colds, headaches, stomach pains, muscle ache, nausea and seasickness.

The first card (Fig. 1) is from a second series of cards featuring “Les Proverbes.” This proverb says “Qui se ressemble s’assemble.” Loosely translated it means “those who resemble each other, assemble with each other.” Or, “birds of a feather flock together.”

The second card (Fig. 2) is a masterpiece of 19th century preventive dentistry and of trade card art. Six toothbrushes at work are featured, from grandfather scrubbing his artificial choppers down to the baby brushing her dollie’s teeth (or is that a wombat?). This must be a record number of toothbrushes in action pictured on a trade card. The legend beneath the illustration on this card loosely translates, "L’Alcool de Menthe of RICQLES used for the care of the mouth gives the teeth brilliance and whiteness, and deliciously scented breath.”

This card is a good example of the racist stereotyping pictured in Victorian Era advertising. Such images as Jewish merchants with big noses making sly money deals, Chinese people brandishing knives chasing rats for dinner, and African American people shabbily dressed, without shoes, stealing watermelons or chickens are common on trade cards of the 19th century. The native island people on this French Gerbault card are pictured with no shoes, large lips and ragtag clothing. Such insulting racist advertising is thankfully not tolerated today.

Continued on the following pages...
Dental Postcards LVI

Collected and analyzed by
Arden G. Christen, DDS, MSD, MA
Joan A. Christen, BGS, MS
Indiana University School of Dentistry

Un mauvais quart d’heure...

3½ x 5½ inches

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achriste@iupui.edu
This comic postcard portrays anthropomorphism *extraordinaire*: a fully-dressed dog dentist and his canine assistant gleefully giving “treatment” to a cat patient. While the two dogs are smugly smiling, the three cats in attendance appear distressed. The dentist wears a jaunty red beret, a white jacket, blue shirt, dark purple bow tie, and purple trousers. True to his species (though perhaps not in compliance with contemporary standards of dental practice) he is bare-pawed. Smiling with self satisfaction, he holds up an extraction forceps with an attached tooth as he offers the alarmed, seated patient a glass of water. The mischievously grinning dental assistant dons a black beret, green bow tie, rose colored jacket, white shirt and green trousers. He, too, trods on uncovered paws. With two dental towels draped over his right arm, he adjusts a pillow on the back of the patient’s chair. The feline patient is adorned in a white shirt, red bow tie, purple jacket and tan trousers with red horizontal stripes.

An ordinary casual seat serves as a dental chair. To the patient’s left is a low, multi-drawer, bare cabinet. The ailing cat’s cheeks are swathed in a yellow, red dotted bandana which is tied in a perky knot high between his ears; the patient soothes his afflicted cheek with his paw. No actual dental equipment is present, except for the one pair of forceps.

The suffering cat’s gaping, oval mouth and his saucer-like eyes seem to be targeted on the extracted tooth pinched by the dental forceps. In the left background, another distressed, bare-pawed cat with a white bandaged head, is hurriedly exiting the room, as he gives the scenario a side glance. Could he be making an escape before it is his turn for “treatment”? This patient is equally dapper, wearing a gold jacket, lavender bow tie and black trousers. A passerby cat, shown in the rear right background looks through the window with surprise and alarm.

Although a number of worldwide, antique postcards show animals from one species dentally treating those from another, it is unusual to see canines working on felines. How they enjoy their sadistic work!

This SUPERLUXE Edition lithographic postcard (ca. 1945) measuring 3.5 x 5.5 inches, was printed in Paris. This card was unused and undated.
HISTORY OF DENTISTRY IN OREGON

P/ W. Claude Adams, Executive Secretary, Oregon State Dental Association, has announced the publication of his History of Dentistry in Oregon. The work contains 364 pages with many illustrations. It can be obtained at $7.50 a copy, from Dr. Adams, the Executive Secretary, 304 Selling Building, Portland 5, Oregon.

Recent Books on the History of Medicine and Science

P/ Valuable background information for the history of dentistry in America is to be found in Brooke Hindle's "The Pursuit of Science in Revolutionary America 1735-1789," The University of North Carolina Press, Chapel Hill, 1956.

An interesting work dealing with the history of special procedures in the medical field is William Brockbank's Ancient Therapeutic Arts, Charles C. Thomas, Springfield, Illinois, 1954.


Here also should be listed the English translation by Charles M. Stern of August Pi Súñer's Classics of Biology, New York, Philosophical Library, Inc., 1955. The work deals with 16 aspects of the history of biology, such as the cell theory, metabolism, growth and reproduction, heredity. Each chapter begins with a historical sketch of the subject, followed by extracts from classic discussions by scientists of world fame--Darwin, Descartes, Virchow, etc.

SPANISH DENTISTRY IN THE 15TH CENTURY

P/ Eduardo Ruiz Esquivel has contributed to the Revista Española 4:363-365 July-August 1956, "El Arte Dental en el Siglo XV." This article is interesting mostly because of the mention of two historical books apparently not listed elsewhere. These are: Francisco Vindel's La Odontologia en España en los textos castellanos del siglo XV, Barcelona 1952.
Arques Miarnau's *Historia anecdotica de la Odontologia*, Barcelona 1945.

HISTORY OF REGISTRY OF DENTAL AND ORAL PATHOLOGY

If special interest to the historian of the American Dental Association is the mimeographed account in two parts of the Registry of Dental and Oral Pathology by Henry A. Swanson, at one time Chairman of the Council on Dental Museum and Registry, closely related to the Registry. Copies of this historical account may be obtained upon request to Dr. H. Trendley Dean, Secretary of the Council on Dental Research.

JAPANESE DENTISTRY

If in an article entitled "Impulse für die Zahnheilkunde durch japanische Fachliteratur," Hugo Bergemann (*Zahnärztliche Mitteilungen* **44**: 616–617 Sept. 1, 1956) on the occasion of the opening of the new German East-Asian Institute gives a sketch of the development of dentistry in Japan. The most interesting feature of this short article is the two illustrations, reproductions of original Japanese drawings, one from 1846 and the other from 1335(?).

MORE ABOUT THE CRAWCOURS

If the following details regarding the notorious Crawcours are furnished by B. W. Weinberger:

Monsieur Crawcour and Sons arrived in New York City during the summer of 1834. Their advertisements indicated that members of the family had practiced previously in Paris and London over an extended period—-for at least two generations. Those who arrived in New York came from London, and it has been assumed that they were two brothers. They continued to practice until March of 1835 when they were forced to leave because of public opinion, and although the police in a chartered boat attempted to stop their ship at Sandy Hook, the captain refused to turn them over to the authorities. Thus they made their escape.

RUSPINI AGAIN

If "Bartolomeo Ruspini" is the subject of an article by Enzo Caudana, in Rassegna Trimestrale di Odontoiatria **37**:167-174 July-September 1956. The article contains no new information and appears to be based entirely on the articles by B. W. Weinberger (whom he mentions once by name) and by J. Menzies Campbell (who is identified only by an unattributed quotation).

A HISTORY OF DENTISTRY IN MISSISSIPPI

If William R. Wright's An Account of Early Dentistry in Mississippi and a Limited History of the Mississippi Dental Association, 1875-1956 has just now been issued. It is an 84-page brochure and gives a year by year account of the state association.
BULLETIN OF THE HISTORY OF DENTISTRY

official monthly publication of
American Academy of the History of Dentistry

HISTORIES OF DENTAL SOCIETIES AND SCHOOLS OF U.S.

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FOR THE A.A.H.D. RECORD

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A.A.H.D. BULLETIN NOTICED ABROAD

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TWO BIOGRAPHICAL ACCOUNTS

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B. V. Weinberger has contributed a biographical article "Milo Hellman—a Man of Science" to Am. J. Orthodontics 42: 853-866 Nov. 1956.
NEW MEDICAL HISTORY JOURNAL

Wm. Dawson & Sons, Ltd., 4 Duke Street, Manchester Square, London, W. 1, England announce the publication, beginning January 1, 1957, of Medical History, a quarterly journal devoted to the history and bibliography of medicine and the related sciences, edited by W. J. Bishop, for the Cambridge University History of Medicine Society and the Scottish Society of the History of Medicine.

HISTORY OF SCIENCE AND MEDICINE PROGRAM

The History of Science Society holds its annual meeting December 27-29, 1956 at the Hotel Governor Clinton, New York City.

Benjamin Spector gave a lecture on "Surgical Thought and Practice in Ancient Greece and Rome" at the School of the History of Surgery and Related Sciences of the International College of Surgeons, Chicago, Ill., Nov. 13, 1956.

SCANDINAVIAN HISTORICAL PUBLICATIONS

Swedish Dental Association (Sydsvenska Tandläkare-Sällskapet 1906-1956 en historik) has issued a half-century celebration volume of 250 pages giving the history of the society for that period.

Dental Aktieselskabet af 1934 (Danish Dentist's Supply House of 1934 of Copenhagen) has issued a small pamphlet on the history of dental trade and of social security dentistry in Denmark.

ITALIAN ARTICLES ON DENTAL HISTORY

Giacomo Armenio has contributed an article on dental problems in the first half of the twentieth century "Dalla Vecchia Dentistica alla Moderna Stomatologia" in Rivista Italiana di Stomatologia 11:541-564 June 1956.

Guido Rizzi has published an article on "Surgeons, Dentists and Barbers in the Medieval Venetian World" in Rivista Italiana di Stomatologia 11:483-491 May 1956.

EUGENE S. TALBOT ON DEGENERACY

In an article by Richard D. Walter on the history of the concept of degeneracy (Journal of the History of Medicine and Allied Sciences 11:422-429 Oct. 1956) reference is made to Eugene S. Talbot's Degeneracy—Its Causes, Signs and Results, 1898. Dr. Talbot was a distinguished oral surgeon and orthodontist of Chicago. The concept of degeneracy also appeared prominently in an earlier work of Dr. Talbot's, A Treatise on the Irregularities of the Teeth, 1888, in connection with anomalies and malformations of the jaws. Similar views are found in his Developmental Pathology, 1905.
**Book Shop**

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Published by the American Dental Association color, hardcover, 200 pages

For 15 generations, the American Dental Association has been recognized as the world’s largest and oldest national association within the profession. This new 200-page, full-color hardcover book explores the rich 150-year history of the ADA. The text and rare photographs offer a valuable resource for the dental historian and the dentist’s personal library. Additionally, it may offer an interesting read for patients in the reception room. Its 300 historical photographs, many of which are especially intriguing, were principally taken from the archives of the ADA.

The impressive Appendix lists every ADA annual session site, all former presidents, secretaries, executive directors and other notables of the organization.

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**Tom Brown: Victorian Middlesbrough Dentist**
by Dr. Anthony Brown

This biography combines “family, dental, social and local history” in telling the story of Tom Brown’s determination and ingenuity in achieving professional and economic success in the late 19th century. The inclusion of numerous images (photographed, developed and printed by Tom Brown himself), and annotations blended throughout provide additional insight into the subject’s social and cultural milieu. In addition, the author has been able to accurately describe dental practice during this period, with its emphasis on the so-called “mechanical dentistry” provided by dentists prior to the expansion and integration of the commercial dental laboratory system in the twentieth century.

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The Toothpick and its History

by Dr. Hans Sachs
Translated by Anna C. Souchuk, PhD
Published by Steven Potashnick, DDS
Soft cover, 51 pages, 86 illustrations

There have been a number of English language articles about the toothpick. J. Menzies Campbell’s 1952 paper (Campbell JM. Toothpicks and toothbrushes. Dent Items of Interest. 1952;74: 295-305.) is of particular note. However, Der Zahnstocher und Seine Geschichte eine kulturgeschichtlich-kunstgerbliche studie (The Toothpick and its History: A cultural-historical and arts and crafts study) remains the premier reference resource. We must congratulate Dr. Potashnick for the time, effort and cost in providing this English translation.

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528-A West Barry Avenue
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A Guide to Bone Toothbrushes of the 19th and Early 20th Centuries

by Dr. Barbara E. Mattick

While this book’s primary audience is archeologists, the subject of toothbrushes is intimately connected to our profession. A valuable reference source has been provided to those with an interest in collecting bone toothbrushes, and for anyone with an interest in dental history. Dr. Mattick has assembled, in a useable and well-visualized monograph, essential information for identifying such material.

The basis of this book is derived from research for her master’s thesis in anthropology, which proved that “bone toothbrushes are excellent dating tools for historical archaeologists.”

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**A Sourcebook of Dental Medicine**

*Being a Documentary History of Dentistry and Stomatology from the Earliest Times to the Middle of the Twentieth Century.*

by Gerald Shklar, DDS, MS
& David A. Chernin, DMD, MLS

864 pages, hardcover

The aim of this book is to make available to the profession of Dental Medicine and other interested parties the extensive literature of the past dealing with the diagnosis, description, causes, treatment and prevention of oral diseases. Drs. Shklar and Chernin are presenting the original texts concerning the diagnosis and management of oral diseases ranging from ancient Egypt through the world of the 20th Century.

Many of the basic texts of the past have already been translated into English, French and German from the original Sanskrit, Greek, Latin and Arabic. However, a number of important texts have never before been translated into English. The authors are presenting all these materials to the English-reading professionals in medicine and dental medicine in this 864-page reference book.

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& Joan A. Christen, BGS, MA

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& Arden G. Christen, DDS, MSD, MA

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**A Little Treatise on the Teeth:**

*The First Authoritative Book on Dentistry (1563)*

by Bartholomæus Eustachius
Edited by David A. Chernin, DMD, MLS
& Gerald Shklar, DDS, MS

This volume presents the first direct English translation from the original Latin *Libellus De Dentibus*, and maintains the Latin and English texts on facing pages. His conceptual advances concerning tooth development and function were further buttressed by detailed plates of the musculature of the face, floor of the mouth, the neck, the tongue, and the roots and crowns of the teeth. In addition to giving us the first clear description of the dental pulp and root canal, Eustachius also conceived of the periodontal membrane as a gomphosis. Eustachius’ observations are an illuminating precursor to 21st-century medical science, and still represent a timely and relevant reference for any practicing dentist.

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Flower of Remedies Against the Toothache
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The first French text on dentistry and the diseases of the teeth. This work was published in 1621, more than 100 years before Pierre Fauchard's classic work Le Chirurgien Dentiste. Re-discovered by Dr. Jacques R. Foure, who translated the work into English, he has provided us with an insight into the clinical treatments that were available in early 17th century France. M. Arnauld Gilles was a Parisian dental practitioner who was fully recognized by the state licensing authorities as "Operator for the Ache in the Teeth."

The printing of the book has the left-hand pages as an exact facsimile of the original French text, with the English translation on the right facing page.

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Painless Parker: A Dental Renegade’s Fight to Make Advertising Ethical
By Arden G. Christen and Peter M. Pronych

Throughout his professional life, Painless Parker—a self-promoting dental crusader and patient advocate—sought to gain respectability from the profession of which he was a member. Instead, he was rejected by his colleagues because he used the unacceptable practice of advertising blatantly to the public. The ultraconservative Profession of Dentistry regarded Painless as an outlaw, a renegade, a fraud, a charlatan, a quack, a scoundrel, a thorn in the side, and above all else—unprofessional. However, Painless may have been years ahead of his time as he can be credited with pioneering many innovative practices now accepted by modern dentistry. He developed and perfected the concept of group dental practice. As he stated, “You (the dentist) have to be organized, systematized, capitalized, advertised, standardized and specialized.” This 491 page book tells Painless' story as he wanted it told: from his perspective, using many of his own words.

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A History of Dentistry in the US Army to World War II
By John M. Hyson, Jr., Joseph W.A. Whitehorne & John T. Greenwood
890 pages hardcover

Dental health has been a core requirement for soldiers since the earliest military history. When the muzzle-loading rifle made strong teeth critical to the operation of weapons, dentistry as a profession did not yet exist to assure this element of soldier fitness. This book documents the reciprocal influence of the maturation of the dental profession, and establishment of Army dental care programs. The theme of symbiosis of civilian and Army dentistry defines this period of dentistry's history, in this well-illustrated volume, written by three accomplished historians. The project took over ten years and was initiated and supported by the Office of the Chief of the U.S. Army Dental Corps, and sustained during the tenures of five of the men who occupied that position.

$79
Use the search function where the subject, title, first author (Hyson), Stock Number (008-023-00137-5) or ISBN (9780160821592) can be entered to locate the book. PDF file version will be available for download by May 2009 at the publisher's website (The Borden Institute).
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Sample References


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