

A Century of Service

(Part One of a Series)

On September 16, 1902, 344 dentists — almost a quarter of all the dentists in Canada at the time — met in Montreal with a vision of a national association that would bond from sea to sea the ideals, aspirations and goals of their profession.

To recognize the contributions of the countless men and women who have done so much to elevate the oral health care and well-being of Canadians over almost five centuries, the CDA is proudly publishing a series of 11 historical articles with particular emphasis on the role and influence of the Canadian Dental Association in the 20th century.

Stephen Spender, a British author and editor, wisely stated that “History is the ship carrying living memories to the future.” With this consideration, no history of the Canadian Dental Association can be given justice without boarding that ship and taking a voyage years beyond the Association’s 100-year legacy. The dental profession in Canada is a tableau reaching back for eons where every known civilization left some evidence of the ingenuity of its inhabitants seeking freedom from the universality of dental distress.

Dentistry of the Ancients

Historians and archeologists have produced ample evidence of early dental practices. Excavated skulls and x-rays of mummies from Mesopotamia, Etruria and Egypt reveal periodontal diseases, periapical abscesses and trauma. Instruments of the era indicate treatment by means of extractions, restorations and trephination. Even crude prostheses were known.



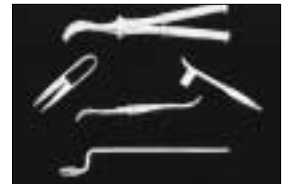
The Etruscan civilization (circa 500 BC) revealed remarkable progress in the art of dental prosthetics.

Hippocrates wrote a considerable amount on teeth. In his *On Affections* he stated, “In cases of toothache, if the tooth is decayed or loose it must be extracted. If it is neither decayed

nor loose, but still painful, it is necessary to desiccate it by cauterizing.” Roman instruments from the ruins of Pompeii show startling similarity to those of today.

Replicas of Roman dental instruments found in Pompeii, 79 AD.

(Dentistry Canada Museum)



The Orient, India, pre-Columbia America — all civilizations — had various methods dealing with dental diseases. As with most illnesses however, diseases of the teeth were treated with a mixture of folklore, religion, evil spirits and superstition. Poultices of herbs, grasses and roots were commonly applied to offending dental areas to relieve pain.

Muhammad introduced one of the finest examples of ancient oral hygiene in the late sixth century. The Prophet taught the importance of cleanliness of the whole person, body and spirit.

Muhammad made reference to the use of the siwak — a twig of the *Salvadora persica* tree. The wood of this tree contains sodium bicarbonate, tannic acid as well as astringents beneficial to the gums.



The Siwak

The year AD 476 is frequently given as the date of the Fall of Rome. It was to be 1000 years of the Dark Ages before Europe would see significant advancement in any learning, let alone dentistry.

The Revival of Learning

The Renaissance, beginning in Italy and spreading throughout Europe in the 14th, 15th and 16th centuries, was the period of great revival of learning in art, literature and science. It was the time of Gutenberg's press and the discovery of new lands. Da Vinci's works freed anatomy from slavish subservience to Galen. Vesalius (1514–1564) made anatomy a living, working science. In 1563 Eustachius published the first book devoted to dental anatomy and the histology of teeth. The same period saw Paracelsus become the father of pharmacy and Paré the father of surgery (he developed the first palatal obturator).

Dentistry today — organized, systematic and accessible to all as a science and a profession — owes its foundation to Pierre Fauchard.



Pierre Fauchard, 1678 - 1761
Father of Modern Dentistry and
Author of the epic 1728 work
Le chirurgien dentiste ou traité des dents (The Surgeon-Dentist, or Treatise on the Teeth)

Columbus' historic voyage opened the entire New World to the inhabitants of Europe. Despite adversities the immigrants found a new way of life. Avenues were now open for the renewal of hope, and there was freedom from oppression. But there was still no freedom from dental pain.

First Record of Oral Disease



Jacques Cartier wrote the first description of oral disease in the New World. He recounted how his crew suffered from scurvy when his ships were frozen in the St. Lawrence River during the winter of 1535–1536. *“And all the sick had their mouths so tainted and their gums so decayed that the flesh peeled off down to the roots of their teeth while the latter all fell out in turn.”*

Of the 110 Frenchmen in Cartier's crew, the disease eventually killed 25 and all but three were disabled. And probably all would have perished if the Indians had not instructed them to boil the bark and sap of a tree —

possibly white cedar or spruce. *“Then to drink of the same concoction every other day and to put the dregges of it upon the legges that is sick.”*

Canada's First Dentists

Guilds of barber-surgeons were first formed in Europe in the 13th century. Their activities generally included bleeding, cupping, leeching, giving enemas and extracting teeth. Jean Madry was the first barber-surgeon in Quebec, arriving around 1651. By the time the first Canadian directory was published in 1791 there were 110,000 people living in Lower Canada and 20,000 in Upper Canada. The directory listed 19 people in Quebec City and 33 in Montreal who practiced the healing arts of the day: physicians, surgeons, *accoucheurs*, apothecaries and *saigneurs et arracheurs de dents* (blood letters and tooth drawers). There were a total of nine in this latter category and although they did little beyond extractions they are considered the forerunners of dental professionals in Canada.



Population in Canada 1791

Lower Canada, 110,000 Upper Canada, 20,000

Growth of Dentistry in North America

The 1763 Treaty of Paris and American Independence in 1776 brought an end to years of hostility in North America and with it substantial increases in population in both Canada and the United States.

Dentists who had been disciples of dental pioneers and researchers such as Pierre Fauchard, Étienne Bourdet (1722–1789) and Robert Bunon (1702–1748) in France and John Hunter (1728–1793) and Thomas Beardmore (1740–1785) in England came to the new land unfettered by the customs of the old countries. They were able to break through the barriers of secrecy that surrounded dental practice in their countries of origin. It is thought that this “freedom” had much to do with the remarkable advance-

ment the profession achieved on these shores over the next 100 years.

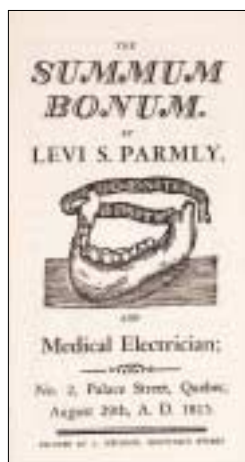
Although the dentists who sought a new life in the new land were relatively few, the number of dentists in Canada increased notably under the apprenticeship training system of the day. Records are scant but it is thought that the first apprentice-trained dentists came to Canada from the United States, as itinerants to the larger centres such as Montreal, Quebec and York (later Toronto), and stayed as their practices flourished.

The first Canadian newspaper announcement of a dentist was published in the *Acadian Recorder* in Nova Scotia on December 3, 1814:

Mr. Hume, Surgeon, has removed into New House in Barrington Street, 2 doors south of the Baptist Meeting House. He will also operate as a Dentist in fixing Artificial Teeth etc., etc.

Canada's First Book on Dentistry

Among the dentists to come up from the United States was Levi Spear Parmly (1790-1859). Little is known of his background or dental education but he did travel from Vermont to Montreal early in the 19th century and after a short stay moved on to Quebec City. It was there in 1815 that Parmly published the first Canadian book on dentistry, the 65-page *Summum Bonum*.



"A full set of teeth with gold springs not to exceed one hundred dollars.

Separating the teeth not to exceed one dollar.

For mending a tooth with foil one dollar, gold etc.

My first wish is a continuance of the public's patronage – my highest ambition to deserve it"

(Dentistry Canada Museum)

Dental Technology — Early 1800s

Dentistry in Canada in the early part of the 19th century was still very primitive. The dental key was the popular instrument for extractions, and bow strings and geared mechanical devices served as dental drills. Westcott's finger ring drill must have achieved speeds of at least 100 rpm!

Replacement of teeth, full and partial, had not advanced a great deal since the time of the Etruscans. Solid blocks of



Westcott Finger Ring Drill, 1846



Dental Key

(Dentistry Canada Museum)

ivory were carved into "dentures" and, for the sake of esthetics, human teeth were sometimes inserted into the anterior segments.



Solid Ivory Denture



Ivory Base, Human Anterior

(Dentistry Canada Museum)

The mid-19th century witnessed some significant advances in dental technology. In Italy, Giuseppeangelo Fonzi developed porcelain teeth with baked-in retentive pins, in England, Charles Stent invented impression compound and in the United States Robert Arthur introduced cohesive gold foil.

Two breakthroughs affecting dentistry occurred in the same year. In 1844 Horace Wells' discovery of nitrous oxide anesthesia and Charles Goodyear's invention of vulcanization provided for the first time surgery without pain and an acceptable denture base for the edentulous mouth.

Credit for the first use of anesthetic in a surgical operation in Canada goes to **Dr. Lawrence Van Buskirk** (right), a Halifax dentist who began using ether in 1847.



The profession had to await the last half of the 19th century before other ingenious dentists — all Americans — added further momentous changes to the art and science of dentistry. Sanford Barnum introduced the rubber dam in 1864, Whitcomb the sanitary cuspidor in 1866, James Morrison the foot pedal dental engine in 1872 and Basil Wilkinson the hydraulic chair in 1877. Dentistry would never be the same.

Dental Practitioners — Early 1800s

Technology, of course, is only indicative of the human hand at the controls. The type of man providing dental treatment — and yes, they were all men in the early 1800s — was changing. The 1816 Quebec Almanac listed only five *saigneurs et arracheurs de dents* (blood letters and tooth drawers) as dentists of a different character and calibre replaced the early pioneers. By the 1850s dentistry was mainly practised by four groups of individuals:

- Physicians who performed emergency dental treatment.
- Graduates of medical schools who took some apprenticeship training and limited their practices to dentistry.
- Men who served as apprentices to dentists under an indenture agreement.
- Poorly trained itinerants, who advertised widely, made excessive claims and left town in a hurry.

This variation in training and expertise was a cause of increasing concern — particularly as it related to the poorly trained itinerants, who all too often were charlatans. Among the serious practitioners — who sought only the best for the patients they served — there was increasing talk of developing a regulated profession.

As early as 1840 **Dr. Aldis Bernard** (right) of Montreal unsuccessfully attempted to have dental clauses included in a bill introduced in Lower Canada for the regulation of physicians and surgeons. And in 1860, Dr. Charles Brewster from Montreal sent a letter to all dentists in Canada seeking support for an act for dental regulation. His efforts ran into legal entanglements, and dentistry had to wait eight more years before the first dental act in the world became law in the Province of Ontario.



The Canadian Dental Association: 1902-2002 — A Century of Service is a Centenary project of the Canadian Dental Association in collaboration with the Dentistry Canada Fund, the charitable foundation for the dental profession in Canada. Written by Dr. Ralph Crawford, Historian and Past President of CDA, with sincere appreciation to the pioneers and innovators who have contributed so much to the dental profession. Particular thanks to the authors below from whom much of the documented information is drawn:

Donald W. Gullett, DDS. *A History of Dentistry in Canada, 1971*

M.D.K. Bremner, DDS. *The Story of Dentistry, 1946*

Malvin E. Ring, DDS. *Dentistry, An Illustrated History, 1985*

(All statements of opinion or supposed fact are published on the authority of the author and do not necessarily express the views of the CDA or the DCF)



Special thanks to Ash Temple Limited, a proud sponsor of *CDA—A Century of Service*. Ash Temple, itself a pioneer, was founded by Harry Temple, who opened his Toronto office, H.P. Temple Co. in 1895. In 1902, it merged with George Parrison's supply house in Montreal. From 1904 to 1929, Temple's company expanded westward to Winnipeg, Regina, Calgary, Edmonton, Vancouver and Victoria. In 1906, a branch was opened in London, Ontario.

In 1922, the company merged with the Claudius Ash Company of England. Branches were opened in Toronto and Hamilton, Ontario. The company changed its name to Ash Temple Limited and opened another branch in Ottawa. The purchase of Maritime Dental in 1962 — with branches in Halifax and Saint John — and the opening of a branch in Quebec City in 1976 made Ash Temple a full-service dental supply company from “sea to shining sea.”

In 1983, a Canadian management group acquired Ash Temple Limited. “Although Harry Temple died in 1944, the company still operates according to its founder's philosophy, first enounced 106 years ago,” says Michel A. Hart, Ash Temple's chairman and chief executive officer since 1982. “Harry Temple had a firm belief that fair and ethical business practices are the only way to sustain customer confidence and loyalty, and that's how we conduct our business every day of the year.” In 1994, CDA named Hart a ‘Special Friend of Canadian Dentistry’, — the highest honor that the Association can confer on a non-dentist.

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