

MARITIME DENTAL  
COLLEGE AND  
DALHOUSIE  
FACULTY *o f*  
DENTISTRY



*a* HISTORY



*O s k a r S y k o r a*

The 1990-91 academic year marks the centennial of the formation of organized dentistry in Nova Scotia.

This was the *conditio sine qua non* for the formation of a dental institution of higher learning, as it was under the auspices of the Nova Scotia Dental Association that the Maritime Dental College was established in 1908. Eventually, arrangements were made between the NSDA and Dalhousie University, whereby the Maritime Dental College became the Faculty of Dentistry. This arrangement marked the formation of the first university faculty of dentistry in Canada.

The story opens by telling how dental disorders were treated in Atlantic Canada at the time of the arrival of European explorers and what dental problems the early colonists faced. The 19th century saw the change from the itinerant to the resident dentists, the formation of organized dentistry, and the change in learning the art and science of dentistry from the apprenticeship style to a student in an institution of higher learning.

The narrative chronicles the struggle of the Faculty of Dentistry to establish its own home, its challenges during the war years and the new challenges it faced with the increased demands for dental services, with the corresponding demands from greater enrollment of students. It culminates with the establishment of Canada's newest dental teaching and research facilities.

The Faculty's first 80 years of service are recognized as well as those of the so-called silent majority, the support staff, without whom it would have been impossible to operate the school. The story also traces the foundation of the School of Dental Hygiene, the beginning of the first dental graduate and postgraduate programmes, the struggle to overcome financial difficulties in order to be able to develop a meaningful dental research programme and the importance of the school's continuing education activities to the quality of dentistry in the region. The various involvements of the Faculty in community activities in Atlantic Canada are emphasized.

However, it is foremost a story of people associated with the Dalhousie dental school, how they shaped their school and reacted to the continuous changes throughout the eighty years of its history. Illustrated with many photographs and documents, this work is dedicated to the generations of Dalhousie dental and dental hygiene graduates throughout the world.

**Oskar Sykora** was born in 1929 in Náchod, Czechoslovakia, where he received his early education. He came to Montreal, Quebec, as a political refugee in 1949. There he obtained his undergraduate and graduate education. In 1961 he became a full-time assistant professor in the Department of Removable Prosthodontics at McGill University's Faculty of Dentistry, and from 1967 to 1972, he was an associate professor and chairman of the Department. He has been a member of the Faculty of Dentistry of Dalhousie University since 1972.

ISBN 0-7703-2162-3  
Copyright © 1991

MARITIME DENTAL  
COLLEGE AND  
DALHOUSIE  
FACULTY *o f*  
DENTISTRY

---

*a* HISTORY

*O s k a r S y k o r a*

---

*Published by:* Dalhousie University Faculty of Dentistry  
and the Nova Scotia Dental Association

*Designed by:* Gaynor/Sarty, Halifax, N.S.  
*Printed by:* McCurdy Printing and Typesetting Limited., Halifax, N.S.  
Canada

Copyright © 1991

ISBN 0-7703-2162-3

---

---

## CONTENTS

Illustrations .....	vii
Foreword by Dr. J.D. McLean, Dean Emeritus .....	ix
Acknowledgements .....	xiii
Introduction: Dentistry in Atlantic Canada Before the Establishment of a Dental School.....	1
I. The Maritime Dental College .....	26
II. Dr. Frank Woodbury .....	63
III. Canada's First Faculty of Dentistry Struggles to Establish Its Own Home .....	71
IV. The J.D. McLean Years .....	96
V. Canada's Newest Dental Teaching Facilities Take Shape .....	114
VI. Recent Times.....	134
VII. The School of Dental Hygiene .....	147
VIII. The Unsung Heroes: the Silent and Sometimes not so Silent Majority .....	160
IX. Research .....	191
X. Serving the Profession: Graduate, Post-graduate and Continuing Education Programmes .....	198
XI. Serving the Community.....	218
What is an Epilogue Becomes a Prologue .....	232
REFERENCES .....	237
APPENDICES	
A. Deans and professors emeriti.....	245
B. Graduates of the Dalhousie Faculty of Dentistry .....	246
C. Graduates of the Dalhousie School of Dental Hygiene.....	256
D. Graduates of the Dalhousie Programmes in Oral Surgery and Periodontics .....	261
E. Dalhousie dental graduates and/or NSDA members who were Presidents of the Canadian Dental Association .....	262
F. Dalhousie dental graduates who were Presidents of the Nova Scotia Dental Association.....	263
G. Dalhousie dental graduates who were Presidents of the New Brunswick Dental Society .....	264
H. Dalhousie dental graduates who were Presidents of the Dental Association of Prince Edward Island .....	265
I. Dalhousie Dental graduates who were Presidents of the Newfoundland Dental Association.....	266
J. The 1991 list of the Faculty and Staff .....	267
INDEX OF PERSONS.....	275



---

---

## ILLUSTRATIONS

Dr. L.E. VanBuskirk.....	9
The 1898 programme of the joint meeting of the Maritime dental associations ...	24
The first Faculty Minutes, 1908.....	40
The 1908-09 teaching staff of the Maritime Dental College .....	40-41
Forrest Building—the home of the Maritime Dental College .....	58
A first Dalhousie DDS degree, 1912.....	60
A licence given to a Dalhousie dental graduate, 1912.....	61
Dalhousie “school of dentistry” .....	62
Dr. F. Woodbury .....	63
Patent for Dr. H. Woodbury’s dental chair.....	64
The dental waiting room in the Forrest Building, c. 1921 .....	73
The dental infirmary in the Forrest Building, c. 1917 .....	74
Ms. Arabelle Mackenzie.....	75
The dental graduates 1912-21 .....	76
Dr. F.W. Ryan .....	77
Dr. G.K. Thomson.....	77
The histology laboratory, c. 1940’s .....	78
Dr. W.W. Woodbury .....	81
The dental infirmary in the Forrest Building, c. 1953.....	83
Dr. J.S. Bagnall.....	86
“Meeting Dental Needs” .....	90
“Start Work on Plans for Dental Building” .....	90
The construction begins on the dental building, 1956.....	91
“New Dental Building Ready Soon” .....	91
The dental research, 1955.....	93
The 1958 dentistry building .....	94
The dental clinic, 1965 .....	97
Dr. A.T. Roger .....	101
Dr. J.D. McLean.....	113
Dr. I.C. Bennett.....	114
The new entrance into the expanded dentistry building takes shape .....	122
The 1982 celebration of the expanded dental building .....	123
The main foyer of Canada’s newest dentistry building.....	124
The logo of anniversary ‘75 .....	125
Dr. H.J. MacConnachie .....	126
Dr. A.H. Ervin .....	128
Dr. R.H. Bingham.....	129
Dr. K.L. Zakariasen.....	135
The 1986 Faculty “retreat” .....	136
Dr. G. Pentz.....	140
Drs. E. Spracklin, G. Faulkner and C. Franklin .....	141
Dr. Janet Burnham .....	155
Dalhousie dental hygiene diploma, 1963 .....	156
Associate Professor Katherine F. MacDonald .....	157
Professor M.G.E. Forgay .....	157
Students voice their concern, 1908 .....	166
Dentistry football team in the early 1960’s.....	171
The first cover of the <i>Dalhousie Dental Journal</i> .....	173

---

Students' table clinics.....	175
A table clinic presentation.....	175
Ms. M. Christie with Dr. K. Kerr.....	182
Four-handed dentistry.....	183
Mr. Bruce Moxley.....	189
Dr. D.W. Jones.....	195
The research funding 1959 - 1988.....	196
The IADR/AADR Dalhousie Abstracts 1972 - 1990.....	196
Dr. F. Lovely.....	199
Dalhousie's first dental continuing education course announcement.....	203
The participants of the first dental refresher course, 1937.....	205
A continuing education course.....	208
Dr. D.V. Chaytor.....	209
Dr. K. Chaytor.....	209
Drs. G.M. Dewis and H. S. Crosby.....	213
A lecture hall with participants of a continuing education course.....	214
The Continuing Education in Dentistry Attendance Awards recipients.....	215
The Red Cross Health Caravan.....	222
The mobile clinic.....	224
Dr. D. Cunningham and Ms. K. Purcell in the Special Care Unit, 1988.....	226
The dental museum.....	229
Dalhousie Faculty of Dentistry.....	233



---

---

## FOREWORD

In this the centenary of the Nova Scotia Dental Association, it is most appropriate that special recognition be given for one of its most valuable contributions to the people of this Province, to the people of the Maritimes and, indeed, to the people of Canada. The Maritime Dental College was formed by the NSDA in 1908. It became the Faculty of Dentistry of Dalhousie University in 1912, and thus the first graduates received their Doctorate of Dental Surgery degrees from what had become the first university Faculty of Dentistry in Canada. Other dental schools had been established in Ontario and Quebec at an earlier date, and they did establish relations with their "local" universities, but they did not become separate faculties until somewhat later than the school at Dalhousie.

With the great advancements in dentistry to-day, it is a little hard to realize that the first dental act in the world was formed in Alabama in 1841. At that time dental services were being provided by four types of practitioners. There were those who performed emergency dental services. Some medical graduates took apprenticeships and became dentists. Some practitioners were little more than advertisers, and then there were the apprentices with dentists whose indentureship led to practise.

The first dental school in the world was established in Baltimore, Maryland in 1840, and the first one in Canada was formed by the Royal College of Dental Surgeons of Ontario in 1875. Naturally, it was some years before dentistry had advanced to the stage where it was conducted solely by professional graduates.

One of the early Nova Scotia graduates was Dr. W.D. Cowan of Halifax, who graduated from the Baltimore College of Dental Surgery in 1888 and took up practice in Regina, Saskatchewan, where he became known as "the founder of the dental profession in the west". Dr. Cowan was secretary of the Dominion Dental Council from its formation until 1932. To affirm my perspective of the "short life" of dentistry, I can vaguely recall Dr. Cowan, whose daughter cared for me through church service in my earliest infancy. A colleague in practise with Dr. Cowan was Dr. Charles Parker, a 1914 graduate from Dalhousie's third class. He, with his lovely wife and family were warm and intimate friends of my parents and their children.

To further illustrate how "contemporary" dentistry is here, when I came to Dalhousie in the early nineteen fifties, I was very privileged to have as my secretary, Miss Gladys Littler, the first non-academic member of the faculty from its infancy. What a kind, thoughtful, dedicated and wonderful person she was! An example of her dedication is that she had prepared and kept a biographic sketch of all the students with whom she had been

---

---

associated in the dental school, a record of them, not only as students, but continuing through their professional careers. It's a great pity that this record of her devotion, which she had left with the dean's office on her retirement, was lost in the move into the present dentistry building.

My other direct contact with early staff was to have known and for a short time to have worked with my predecessor as Dean, Dr. J. Stanley Bagnall, who was the first full-time member of the Faculty from his Dalhousie graduation in 1921. Indeed, except for the few years in the late 1940's and the untimely death of Dr. John Dobson, Dr. Bagnall was the only full-time faculty member until my arrival in 1953. Here is another example of a fine, dedicated person who left a strong influence for the good of successive classes of students, and on staff and faculty.

It is hard for me to resist the strong temptation to pay the equally well deserved tribute to my many associates at Dalhousie over the years. To name but two of the outstanding people, there was our first clinic director, assistant dean, and, for a brief term, dean - Dr. Robert Bingham - and the second person was the organizer and first director of the School of Dental Hygiene, Mrs. Janet Burnham. Then, too, there were the fine technical, clinic and office staff. Were I to yield to the temptation, this report might compete in size with the splendid work of Dr. Sykora.

It is interesting to reflect on the broad development of the Profession in Canada, and particularly its educational programmes, in little more than a century. A large debt is owed to the dedicated and most generous individuals responsible for establishing the first dental schools in our country. In the early days, the schools were "owned and operated" by the profession, and the teaching staff in many instances donated their part-time services for the good of the profession and the public. In some instances, as at Dalhousie, there was early association with colleges or universities.

In little more than half a century, five dental schools had been established successfully in Canada and all had become closely associated with, if not Faculties of, Universities prior to the depression of the 1930's. During that recession period and the Second World War, advancement was limited. In many instances, both enrollment and finances had declined. By the 1950's, however, there was a dramatic change. The schools had become faculties and in response to the inflated applications for enrollment, the faculties were significantly expanded. Credit for the improvements are due to the Canadian Dental Association and its very fine Council on Dental Education which began to periodically review the programmes of the faculties across the country. I recall so vividly the significance of the report when I came to Dalhousie. It provided an excellent stimulus to the local profession, the University and the provincial governments of the Maritime region with the result that the then President of Dalhousie, Dr. Alex Kerr, was able to encourage and support the expansion of the dental school to double its class size, plus a new school of dental hygiene, and the conversion of the instructional resources from almost totally part-time

---

---

practitioners to a balanced proportion of both full and part time faculty, each with special talents.

At the same period, five new Faculties of Dentistry were established. Three were in Western Canada, and one in Ontario and one in Quebec, so that the Maritimes (actually the Atlantic region) was the only area which did not have at least one Faculty in each province. This is still the situation, but the mutual support in and from the four provinces leaves no reason to seek an additional school at this time.

During the Presidency of Dr. Henry Hicks, the financial support for Universities across Canada increased significantly, and at the same time, appreciation and demand for dental services had expanded. A stronger mandate was needed to permit the expansion of Dalhousie's Faculty of Dentistry, in terms of both undergraduate numbers and post-graduate, graduate and research programmes. The same vision existed across the country, and Dalhousie was fortunate in being able to expand its facilities. It became evident that some degree of constraint was more appropriate and so development continues but at a somewhat more modest rate.

In the preparation of the story of the development of Dalhousie's Faculty of Dentistry, it is indeed fortunate that a person of such a broad and varied background in the field should have been attracted to the task. Dr. Oskar Sykora, a native of Czechoslovakia, where he obtained his early education and his high school certificate in 1948, came to Canada with his parents as political refugees in 1949. In 1950, he enrolled at Sir George Williams University in Montreal, from which he obtained his BA in 1954, to a large degree through evening and summer classes. Part way through this programme, in 1952, Dr. Sykora began studies at the provincial school of dental technology, again, with many evening classes. He became a Certified Dental Technician in 1956, and won the First Prize of the Association of the Dental Technicians of the Province of Quebec for the highest provincial standing in the study of Dental Technology.

Having found it so satisfying to be pursuing studies in Arts and Dental Technology at the same time, and having completed his BA degree from Sir George Williams in 1954, he moved on to the Université de Montréal to acquire his MA, Magna Cum Laude, in the Faculté des lettres in 1955. That fall, he went to McGill University to begin his studies in dentistry. Next year he returned to largely evening studies at the Université de Montréal to acquire his PhD degree from the Faculté des lettres in 1959. That same spring he was awarded the DDS degree from McGill University, with the Lieutenant Governor's Gold Medal Prize. In recognition of his having obtained two significant degrees on the same day, from different universities, and as a representative of students and New Canadians, he was invited to be a guest of the Governor General and Prime Minister Diefenbaker at a state dinner in Ottawa for Her Majesty, the Queen.

In the fall of 1959, Dr. Sykora embarked upon his new professional career as a dental practitioner and as a part-time Demonstrator in the

---

---

Department of Removable and Fixed Prosthodontics at McGill University. In 1961, he became a full-time Assistant Professor, and in 1967, an Associate Professor and Chairman of the Department of Removable Prosthodontics,

Dalhousie University was fortunate to have been able to persuade Dr. Sykora to join its Division of Removable Prosthodontics on a full-time basis in 1972. There he held the position of Associate Professor until 1990, when he was advanced to the role of Full Professor. Consistent with his variety of interests and activities from student days at university, Dr. Sykora has carried on a part-time private practice at McGill and then at Dalhousie. Not only is he a well respected instructor in the undergraduate programme, he is most willing and able to serve in varying capacities on faculty committees and in many professional societies. His professional activities extend far beyond the basic beginnings. While at McGill, starting in 1964, he participated in a number of Post-graduate Refresher and Continuing Education courses. This has continued with programmes at Dalhousie and throughout the Maritime Provinces for both dentists and dental technicians. His presentations to professional organizations which began in the early 1960's in Montreal has now reached the figure of at least ninety in a twenty-five year period. These presentations were not limited to the eastern half of Canada, but extended to Boston, Chicago, New Orleans and other centres in the United States. In more recent times, he has been invited to extend his offerings to Athens, Turkey, Paris, Marseilles, Lyon, Cardiff in Wales and, most recently, to the Netherlands.

Not surprisingly, these presentations and the findings of his research activities have led to more than thirty publications.

From this brief biographic sketch, you will understand why I am so very pleased to introduce Dr. Sykora's fine report on the history of "our Maritime dental school", the Faculty of Dentistry, Dalhousie University!

Additionally, a special word of appreciation should be expressed for the assistance of the Nova Scotia Dental Association and Dalhousie University in providing the temporary funding required to undertake the publication of this fine book. Thanks to them and especially to Dr. Sykora, who has waived acceptance of any payments for his services, the profits from the sale of the books will be used to establish a special student bursary fund.

James D. McLean  
Dean emeritus, Faculty of Dentistry  
Dalhousie University

---

---

## ACKNOWLEDGEMENTS

It is not easy for me to find words of thanks, nor to list all of the people who in many ways helped me to prepare this book. I cannot but wonder at the many unexpected quarters from which so many people came forward with help and words of encouragement.

Among those to whom I am indebted are the members of the Editorial Committee of the Faculty of Dentistry: Drs. Elliott Sutow, Richard Price and John Sterrett, and Associate Professor Kate MacDonald. Dr. Douglas Chaytor reviewed the material on continuing education, Ms. Kate MacDonald on dental hygiene and Dr. Barbara Harsanyi on oral pathology; their reviews and Dr. Gordon Pentz's identification of some photographs were invaluable to me.

From the list of the many "unsung heroes", I am in debt to the dental librarian, Mr. Patrick Ellis, who took a notable delight in locating for me some of the more obscure archival material; to Ms. Margaret Redden and Ms. Gweneth Mounteer for their fine secretarial work; to Ms. Marilyn Klein and Mr. Paul Doleman for their help with the illustrations; and particularly to Mr. Peter King from the Faculty of Medicine for his fine editorial assistance. Mr. Bruce Moxley must be credited for his initiative in seeing that this project was realized.

Dean Kenneth L. Zakariasen, Nova Scotia Dental Association President, Philip L. Cyr and Don Pamerter, Executive Director of the Nova Scotia Dental Association, Dr. Frank W. Lovely, who chairs the Dalhousie Dental Alumni Committee, and Ms. Elizabeth Flinn, Director Alumni Affairs, made this project, with their financial assistance, a reality.

However, I am particularly indebted to one person, Dean Emeritus, Dr. James D. McLean. I doubt very much whether without his assistance and prodding, this book would have seen the light of day. Also, Dr. McLean took it upon himself to read the complete manuscript, and acted as an advisor, a consultant, and a friend. Such are the extra benefits one is fortunate to share in undertaking such a task.

I cannot help but feel that without the support that I received, this work would have been woefully incomplete. However, no matter how carefully one approaches such a project, errors and omissions occur. For these I take full responsibility and offer my sincere apologies to anyone whom I may have overlooked or who may feel slighted in any way.

My special thanks must go to my wife, Christine and my children for their understanding while I was involved in this project; I must have been particularly difficult to live with. My oldest son, Jan, has contributed more tangibly by designing the book cover. Finally, I have to acknowledge my parents, who nurtured in me a love for books and learning and who,

---

---

through their courage and sacrifice, allowed me to pursue these in a free world.

Preparing this book has been, for me, primarily a labour of love. In doing so, I have learned a tremendous amount about the evolution of dentistry and dental education in Atlantic Canada. This, in turn, has enabled me to better understand the Faculty of Dentistry's present role and to anticipate how changes in that role may affect the way dentistry evolves in Atlantic Canada in the future. It is my humble wish that the inquisitive reader will derive equally some satisfaction and insight from this fascinating tale of the first Canadian dental faculty.

O.S.

# DENTISTRY IN ATLANTIC CANADA BEFORE THE ESTABLISHMENT OF A DENTAL SCHOOL

*History indeed is the witness of the times, the light of the truth.*  
Cicero, *De Oratore*

The story of dental education in Atlantic Canada cannot be properly told out of its larger North American context. Indeed, it has to be viewed from a wider perspective of a whole North Atlantic community. Just as in Europe, so North America in general and in the Maritimes and Newfoundland in particular, dental education must be understood in terms of a gradual change in dentistry itself. That meant a slow evolution from being a trade to being a profession, from having workplaces in city markets, town squares or village greens to treating patients in private rooms, from itinerant to resident dentists, from being an art to being a science. All these events, together with the changes in technology and social life are intertwined and cannot be separated for the sake of simplification; viewed together, they constitute a fascinating story.

## THE TREATMENT OF DENTAL PROBLEMS IN ATLANTIC CANADA AT THE TIME OF THE ARRIVAL OF EUROPEAN EXPLORERS

The notion that dental disease was brought to Atlantic Canada by the Europeans is based more on myth than reality. The archaeological findings made at Port-au-Choix, Newfoundland, where virtually no dental caries could be found on 4,300 year old skeletal remains are the exception rather than the rule. And even there, with many exposed pulp cavities due to tooth wear, the individuals would have suffered great agonies from apical abscesses.

However, it was scurvy, caused by a lack of vitamin C, which is found mainly in citrus fruits, fresh vegetables, and raw or lightly cooked fresh meat—that was the most prevalent disease among the Maritime Indians. This was particularly true during the long winter months, when there was a

lack of food, as well as proper nutrition. As similar problems befell the early European explorers, they, too, suffered greatly from scurvy. Of all the members of Champlain's 1603 expedition who, led by Sieur de Mont, wintered on an island in the Ste. Croix River in 1604, only eleven remained healthy. Thirty-six of those stricken with scurvy died, and the remaining forty recovered only with the arrival of spring.

They need not have suffered so. Nearly seventy years earlier, while Jacques Cartier was wintering at Stadacona in 1535-36, his men also fell ill with scurvy. Cartier gave a classic description of the disease's manifestations: "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."<sup>1</sup> But Cartier's men were more fortunate than the explorers with Sieur de Mont, for it was noticed that an Indian who had also been suffering from scurvy had regained his health. How did he do it? The Indian's remedy was to boil the sap and bark from a tree called *annedda*, the Tree of Life, "then to drink of the same decoction every other day and to put the dregges of it upon the legges that is sick."<sup>2</sup> This tree was the eastern white cedar. Cartier's men tried this Indian herbal treatment for scurvy and within eight days they all recovered. Unfortunately for Champlain and other French explorers, Cartier's discovery was effectively lost because he never told how to identify the *annedda* tree. Because of scurvy, in later years, the French king refused to finance colonization of Acadia between 1609 and 1612.

There is no denying the fact that, in this respect at least, North American "dental" medicine men were ahead of their European counterparts, who had no remedies for scurvy. Indeed, as LeClercq observed, the Indians had "a quantity of root and herbs which are unknown to us in Europe, but whose virtues and properties the Indians know wonderfully well, so that they can make use of them in time of need."<sup>3</sup> Some treatment of dental disorders varied with the geographical location of the tribe: for example, the Beothuks of Newfoundland gave their teething infants inflated fish bladders to chew on, while the Micmacs and the Malecites in the Maritimes chewed the bark of black alder to treat an ulcerated mouth. To treat abscesses, they would use the root of a bulrush mixed in hot water and apply it as a poultice to the sore area. Each tribe used its own secret remedies made up from different roots and parts of trees. This secrecy was partly due to their general belief that the medicine would lose some of its power each time its secret was divulged. Undoubtedly this secrecy was also partly due to the insight of the medicine man, who understood very well that once a secret is known, it loses its mystery and the medicine man loses admiration, respect, social status and power. The remedies, elixirs and concoctions of itinerant Maritime dentists were certainly just as mysterious and secretive, albeit less effective in the treatment of dental problems.

Referring to the Maritime Indians, Lescarbot commented that "they have courage, fidelity, generosity and humanity and their hospitality is so innate



and praiseworthy that they receive among them every man who is not an enemy. They are not simpletons, they speak with much judgement and good sense."<sup>4</sup>

### THE DENTAL PROBLEMS OF THE EARLY COLONISTS

The first North American colonists were described by European writers as being pitifully toothless. Some colonists attempted to alleviate their toothless condition and sought spiritual refuge in a quotation from the Old Testament, namely Jeremiah's "the fathers have eaten a sour grape and the children's teeth are set on edge." Others, decided on a less fatalistic approach to the problem and tried to hide their toothlessness by growing mustaches and beards. Ladies, unable to follow the men's example, were known to become fashionable and attractive, or so they thought, by placing little pieces of beeswax to fill out their sunken cheeks. Self-treatment was the norm.

The earliest examples of restorative dentistry in Canada were discovered in the Maritimes in 1966 during the reconstruction work done in the fortress of Louisbourg on Cape Breton Island. Two skeletons found at the time had tin and lead fillings which were inserted in their molar teeth. Since one of the two skeletons has been identified as being that of the duc d'Anville, who died in 1746 and was reburied beneath the King's Chapel in Louisbourg in 1749, the restorations were undoubtedly made in France and would be representative of the level of French dentistry in the 18th century.

Who is to be credited with being the first dentist (or at least with being the first to provide emergency dental treatment) in the Maritimes? It is known that Champlain's apothecary Louis Hébert was at the Acadian settlement Habitation Port Royal on the Bay of Fundy. Since in those early days apothecaries were expected to practice medicine, Louis Hébert would also have performed emergency dental treatment. Other forerunners who must be considered were the barber-surgeons, the "saigneurs et arracheurs des dents" (blood-letters and tooth-drawers), although they, as the name indicates, would do little beyond extracting teeth. Most likely they would have been trained in Europe. At the close of the 18th century, this type of dental practice began to alter under the influence of the sweeping changes in North American society to which the American Revolution gave impetus.

### FROM ITINERANT TO RESIDENT DENTIST

Itinerant, self-made dentists, often more appropriately called tooth-pullers (and sometimes described as charlatans) gradually made their appearance in the Maritimes, travelling from one community to another and offering their services. (Some would even offer to sell infallible secret remedies to a public that was needy but gullible, always willing and ready to try again.) Newspaper advertisements became common and were eagerly read by the

populace. Since they were frequently the only way for itinerant dentists to reach their potential clientele, a fair idea of the general status of dentistry in the Maritimes in the second half of the 18th century and the first half of the 19th can be gained from perusing the newspapers of this era. Besides the general information about the dentist himself, such an advertisement would frequently praise his own skill and ability without much reservation or modesty. To reach even more people in the shortest period of time, it was not uncommon for the dentist to hire somebody to stand outside his temporary dental premises—usually rented in hotel rooms on the main street or a town square—and give out handbills proclaiming the dentist's superior virtues and skills. Written testimonials from previous patients who were satisfied with the given treatment were also distributed. Since undoubtedly they would have been from persons living in other communities, these testimonials could have been of doubtful value because nobody could have ascertained their accuracy.

Perhaps the oldest dental advertisement to appear in what is now Canada, although not offering dental services, is recorded in Nova Scotia only twenty years after the founding of Halifax. Placed in the *Nova Scotia Chronicle* in 1769, it advertised "Monsieur Jarboue's most excellent Anodyne Water for the Teeth; which cures all Humours in the Gums and cleans the Teeth...."<sup>5</sup> In 1786, the *Royal Gazette* had an announcement by a certain Dr. Templeman, an itinerant dentist, who "Shall be in Halifax about twenty days; part of which time he shall be able to devote to those Ladies and Gentlemen who wish to have any of the following operations performed on their teeth...."<sup>6</sup> Others soon followed. Some, like Mr. John Beath, not only would advertise "Natural and Artificial Teeth fixed on Gold Slates, in the Neatest Manner"<sup>7</sup> but also would entice poor Haligonians with his offer of "Cash given for Natural Teeth."<sup>8</sup> Some dental advertisements were placed in strange locations within the newspaper layouts. Thus, an advertisement placed by a certain Mr. Hume appeared on page 3 of a Saturday issue of the *Acadian Recorder* in 1814, next to an announcement of the "Society for Promoting Christian Knowledge" and an advertisement proclaiming the virtues of "High Proof Jamaica Spirits," in a column that also contained two notices for "Stray Cows."<sup>9</sup> The first recorded advertisement of dental instruments in Atlantic Canada is from June 25, 1814. It was placed by a Halifax surgeon, Samuel Head, who, under the headings of "Fresh Drugs and Medicines," announced that he "has just received from London shipment...patent medicines, fresh drugs, spices, surgical instruments...tooth instruments."<sup>10</sup>

The first newspaper dental advertisement offering dental services in New Brunswick is dated February 8, 1823, while the first one from Prince Edward Island was not until 1850. The latter was placed by John Plimpton, who even for an itinerant dentist was quite a traveller. He had already visited Toronto in the 1830s and in addition to his visit to Charlottetown he travelled to the other Maritime provinces and to Newfoundland.

Considering the fact that in 1840 it still took four and a half to five days to travel by stagecoach from Montreal to Toronto and that itinerant dentists had to carry heavy chests full of dental instruments, materials and equipment wherever they went, one must respect such a person's energy and initiative.

The equipment an itinerant dentist had to transport consisted of hand drills and many other hand instruments—both bizarre and ingenious—frequently designed and crafted by the dentist himself. Some were showpieces, ostentatiously displayed to impress the curious and credulous.

Conditions on the road *were* bad. Dust had to be overcome in the summer, mud in the spring and fall. A post-office surveyor, after examining the section of a "road" from Halifax to Amherst in the fall of 1848, reported that it was in shocking condition, the carriage coach sometimes sinking up to the axles.<sup>11</sup> At least occasionally, therefore, a travelling dentist would have had to help the driver to raise the front wheels out of a deep hole or pry the coach from the mud. Walking part of the journey, particularly up a steep hill to lighten the load the horses had to haul, was not unusual. Generally, the length of each stage was based on the average distance that one set of horses could travel—approximately 30 kilometers—and 45-100 kilometers would have been the usual distance for an itinerant dentist to travel in a day. In the 1830s five days was the average time for the journey between Halifax and Saint John; however, long delays and inconveniences were not unknown. Moreover, the hostels along the stage-coach routes in the Maritimes were often scenes of drunkenness and the beds were full of bugs.<sup>12</sup>

The number of colonists who considered dental care essential was quite small, and dentistry at the beginning of the 19th century was still more an art than a science. (Restorations—called "stoppings" or "plugs," not "fillings"—were mostly with lead or tin; only a few patients could afford to repair their teeth with soft gold leaf.) Nevertheless, the itinerant dentists rendered a useful service. For without these dentists, there would have been no one to minister to the emergency needs of people in the countryside. These dentists must also have possessed considerable technical skills and, when tempered with proper judgement and common sense, provided a wide spectrum of dental treatment quite successfully.

Although the advertising methods of mid-19th-century itinerant dentists cannot justly be judged by applying today's professional standards—which make it illegal for dentists to advertise techniques or set themselves above their confrères—clearly some itinerant dentists were more flamboyant than others. For instance, Louis de Chiverie, who arrived in the Maritimes from Paris, France, was known to enter Halifax in a sleigh drawn by four beautiful white horses to attract the attention of his clientele. He was famous for peddling a secret dental elixir for purifying the mouth that (according to his claims) "strengthens the gums and preserves the teeth and is also indispensable to those who wear artificial teeth;" he also sold a

Superior Tooth Powder that was an “infallible remedy for the toothache.” From Montreal there came to the Maritimes a certain “Professor” Ashley, who called himself the “King of the Dentists.” In his newspaper advertisements he assured his clientele that with his Electro Instrument unknown to anyone, the public would feel no pain whatsoever.

However, the antics of these “imported” itinerant dentists were overshadowed by those of a native Maritimer, Edgar Randolph Parker. Next to him, all the others were amateurs. He was to become the greatest showman-dentist in North America under the legally adopted name of Painless Parker. Born in Tynemouth Creek in New Brunswick, Parker drew crowds to free street-corner shows with chorus girls, clowns, brass bands and many other similar circus attractions before he attempted to proceed with dental work. One of his early methods was to have a musician with a bugle stand behind the patient and blow a blast at a prearranged signal, startling and distracting the patient just when the tooth was to be extracted.

Equally imaginative were the newspaper advertisements for the treatment of dental disorders, whether they be scurvy, teething or a toothache. Judson’s “Mountain Herb Pills,” advertised to cure scurvy, “have now been thoroughly tested and have maintained the highest character everywhere, they have the wonderful power of restoring to health persons suffering under all diseases arising from IMPURE BLOOD.”<sup>13</sup> In newspaper announcements under the title of a large “Circular to the sick,” Professor Holloway’s ointment was advertised as a cure against scurvy and fistulas and “the masses in this country and throughout the world repose the utmost confidence in its curative properties.”<sup>14</sup> (The “Circular to the sick” also stated that Professor Holloway’s ointment should be used in cases of corns and bunions, bad breasts and sore nipples, burns, gout, lumbago, rheumatism, etc.) Problems associated with teething have been around as long as the history of mankind, but “Mrs. Winslow’s Soothing Syrup” promised that it will make this unpleasant experience a soothing one—and that it would regulate the bowels and wind colic, “overcomes convulsions, which, if not speedily remedied, end in death” and “is the best and surest remedy in the world in all cases of Dysentery and Diarrhea in Children.”<sup>15</sup>

On the same page the Charlottetown *Examiner* also advertised another dental remedy—Bunter’s Nervine: “Immediately on its application gives permanent relief by the painless destruction of the nerve in decayed teeth, forms a complete stopping, and renders extractions seldom necessary. Sold by Druggists everywhere.”<sup>16</sup> (The advertisements did not indicate what damage would be inflicted on the teeth by the “soothing syrup” nor did they indicate the corresponding increase of the caries and that a focal infection will remain even after the destruction of the nerve in decayed teeth by Bunter’s Nervine.) Another toothache remedy was Dr. Kline’s Drops: “It is with confidence that we can recommend it as an infallible cure in all cases, without any injury to the teeth or gums. Price 25 cts.”<sup>17</sup> Maritimers had in the “Cherry Tooth Paste” the “perfect freedom from premature decay, and

Teeth of a pearl-like whiteness." This advertisement for a toothpaste, under a heading of "A Beautiful Set of Teeth," was first placed in a Charlottetown newspaper in the fall of 1862.<sup>18</sup> It was still running in 1863.

Most of the itinerant dentists who visited the Maritimes were from the New England states. This is not really surprising because the Maritimes always had strong ties with the "Boston States." The east-west link with Upper and Lower Canada did not have any significance for the evolution of dentistry as a profession in the Maritimes until the establishment of the Confederation in 1867.

The population of the Maritimes at the beginning of the 19th century barely exceeded 100,000. But this situation began to change rapidly: Nova Scotia's population increased from 65,000 in 1806 to 202,500 in 1838, Prince Edward Island's from 9,500 in 1806 to 32,500 in 1838, and New Brunswick's from 35,000 in 1806 to 156,000 in 1840. The larger population centres were now able to support resident dentists on a year-round basis. The practice of dentistry was elevated in the eyes of the public when the scene of the treatment shifted from the town and village markets to a room, even if it was at first frequently the patient's own. Nevertheless, the number of resident dentists increased only slowly and some of them still went on journeys now and then, to serve small communities and to find additional work.

Moreover, few dentists restricted themselves to the pursuit of their chosen vocation on a full-time basis. Indeed, comparatively few could: "Most of them had to have other sidelines—from running a bath house to operating a telegraph office—in order to make ends meet."<sup>19</sup> That dentistry was not a lucrative profession in the Maritimes is shown by an 1844 newspaper announcement in which a certain T. Hutchinson from Saint John announced to the citizens that besides "extracting, sealing, and plugging teeth, clocks, watches and jewelry is being repaired by him in the best manner."<sup>20</sup> A dentist would be considered wealthy in 1867 if his annual professional income exceeded \$1,000. But as a paradox, dentistry was extremely expensive for most of the population and only a very few fortunate people could afford its services beyond the essential emergencies. Even as late as in 1878, an advertisement from P.E.I. announced that Dr. Clement

Begs to inform the citizens of Charlottetown and vicinity that he had adopted the following scale of charges to suit the times and to put dentistry within the reach of all:

For a full upper or lower set of teeth	\$10.00
For partial sets, each tooth	1.00
For Amalgam and all composition fillings	.50
All work guaranteed first class. <sup>21</sup>	

By the second half of the 19th century, the era of the itinerant dentist in the Maritimes was slowly coming to an end. For instance, in New Brunswick in 1858, the directories that listed each resident of a municipality with his occupation showed that Fredericton had two resident dentists (Mr. Archer and Mr. Hiram Dow), that Woodstock had one (Mr. W.A. Balloch), and that the largest city in the Maritimes, Saint John (pop. 27,300), could support three (Cyrus Fiske, T.A.D. Forester and J.C. Hathaway). (By way of comparison, the Canada Directory showed that in 1858 Toronto [pop. 50,000] had five resident dentists, Ottawa [pop. 10,000] had only one, Quebec City [pop. 51,000] had three, and Montreal [pop. 75,000] had five.) One of those three listed Saint John dentists, Dr. Cyrus Fiske, is credited with having been the anaesthetist at the first use of ether anaesthesia for general surgery in British North America, on January 18, 1847.<sup>22</sup> Within a week a notice appeared in the Saint John *Phoenix Advertiser* announcing that he had procured "letheon" (as ether was then called) and would "make use of it in all operations upon the mouth where it will apply."

Most resident dentists still learned their work by apprenticeship or studied medicine as well as dentistry. Among the latter was Dr. Lawrence E. Van Buskirk, the first permanent dental practitioner of repute in Nova Scotia. Born in 1799 in Aylesford, in the Annapolis Valley, a descendant of an old Loyalist family, he first started to work on his family farm but soon realized that his true vocation lay elsewhere. He became interested in the study of dentistry, settled first with his brother George in Saint John and eventually moved to Halifax (his brother moved to Montreal). Shortly after the discovery of anaesthesia was demonstrated in Boston in 1844 by Horace Wells, he realized its significance for dentistry, travelled to Boston to learn how to administer sulphuric ether, and started to use it, first in his Saint John office and later in Halifax. It did not take very long for him to build a busy practice and his renown increased when he began to extract teeth with the use of ether; indeed, in 1848 the *Royal Gazette* reported that "Dr. L.E. Van Buskirk had made an inhaler and for the last year has used ether for over 100 extractions."<sup>23</sup> Lawrence E. Van Buskirk is also credited with being the first person to administer an anaesthetic for a surgical operation in Nova Scotia and with being the first Canadian dentist to subscribe (in 1839) to a dental periodical, *The American Journal of Dental Sciences*. A plaque commemorating his contributions to the advancement of the dental profession—in Nova Scotia, the Maritimes, and throughout Canada—is hung under his portrait on the wall of the main foyer of the Dalhousie University Faculty of Dentistry Building.

Halifax was in fact fast becoming a progressive, health-oriented community. In 1855 a group of concerned citizens formed (and paid an annual membership fee of 20 shillings to support the activities of) the Halifax Visiting Dispensary Society. The Halifax Visiting Dispensary had fourteen physicians, a dentist and an apothecary on its consulting staff. According to the patient's ability to pay, a small fee was charged for the



Dr. L.E. Van Buskirk

services rendered or service was provided free. It is the earliest recorded free dental service for needy patients in Canada.

*The 1858 Directory for Nova Scotia* listed six dentists, all located in Halifax (pop. 25,126): Lawrence E. Van Buskirk, M.F. Agnew, S. Foss, N.A. Glover, MacAllister and Paine. The latter two made a pioneering effort in the history of Canadian dental journalism. Although it may be considered by some more in the nature of promotion for their dental practices than true journalism,

*The Journal of the Times* published quarterly by MacAllister and Paine of 49 Granville St. in Halifax must be credited for its efforts to raise dentistry in Atlantic Canada to a professional level, while trying to raise the level of dental consciousness of the population. In its first issue, published in September 1858, the leading story was on the "Preservation of the Teeth." The information given was factual, based on observation and known scientific facts of those days. It stressed prevention, an up-to-date concept of today's dentistry, and an approach totally different from that used by most of the itinerant dentists of the past. The article stated that "acids of all kinds are injurious to the enamel of the teeth, as they readily unite with and destroy it. Food lodged between the teeth and in their depressions is another fruitful cause of decay...."<sup>24</sup>

How dentistry was practised in Halifax in the 19th century by resident dentists and how far dentistry had travelled from the advertisement days of the itinerant dentists one can ascertain from the following advertisement:

OPERATIONS ON TEETH  
DRS. MACALLISTER AND PAINE  
Surgeon Dentists,  
49 Granville St., Halifax, N.S.

RESPECTFULLY announce to their patrons, friends and others, that they are fully prepared to treat any case in Surgical or Mechanical Dentistry, in the most approved manner.

FILLING TEETH.- This is the most certain and only sure remedy for Carious or Decayed Teeth. When the operation is performed before the vitality of the tooth is injured, its preservation may be regarded as certain. By the use of a new preparation of Adhesive Gold, a

tooth is not only arrested from further decay, but it is restored to its original form and utility.

CLEANSING TEETH.- There is nothing that will be so sure to destroy the teeth as to allow the tartar to remain around their necks, for it sooner or later works its way under the gums, loosening the teeth, and causing their premature loss. The tartar can always be removed, restoring them to their original color and whiteness....<sup>25</sup>

Circulation of *The Journal of the Times*—which was printed at the Steam Printing Rooms of James Bowes & Sons, No. 6 Barrington Street, near the Post Office, and was distributed gratis throughout Nova Scotia—reached 2,000 copies by the time the last issue was published in June 1860.

The first resident dentist in Prince Edward Island was C. L. Strickland, an itinerant American dentist who arrived in Charlottetown in 1861, during the American Civil War. The peace and tranquility of the Island was so in contrast with the fury of the American Civil War that it undoubtedly influenced his decision to stop wandering. What type of practice he had in Charlottetown and what dentistry was like in Atlantic Canada around the 1860s can be seen from his newspaper announcement:

C.L. Strickland,

Surgeon and Mechanical Dentist

Decayed Teeth filled and restored to their natural shape and usefulness with Gold and Platina. Teeth inserted on Gold, Silver and Vulcanite; the vulcanite, although a new thing here, has been used long enough elsewhere to prove it to be one of the most valuable improvements ever made in Mechanical Dentistry. Many persons who cannot wear gold and silver in the mouth can wear vulcanite with ease and comfort. The acids of the mouth have no galvanic action on it whatever. It is free from all taste or smell. It being one continuous piece, there is no possible chance for lodgement of the food or secretions of mouth. It is kept clean with much less trouble than Gold or Silver. It possesses more strength than a base of Gold or Silver and is at the same time much lighter. In case of great absorption of the gums, the cheeks being thereby caused to look hollow and unnatural, this base can be built out so as to give the cheeks their former fullness in appearance. Chloroform used in extracting.<sup>26</sup>

Strickland must be remembered for another first in Atlantic Canada: the first announcement for an overdenture treatment—"teeth inserted on gold, silver, platina, vulcanite (without extracting the roots if desired)"—which was placed in the November 28, 1864, Charlottetown *Examiner*. (The question of whether all the roots of broken teeth should always be removed before a prosthesis is constructed was first raised at a symposium held at the



American Dental Convention in 1861 in New Haven, Conn. The consensus was that the retention of some roots would improve the stability and the retention of the denture and was thus superior to total edentulism. Strickland must have been at the meeting—or at least been aware of the discussion—and realized the benefits of such a technique.) During his approximately fifty years of dental practice in Charlottetown, Strickland also trained many local men who went on to open practices on the Island.

### THE ERA OF RAPID CHANGE

With the advancement of the industrial age in the second half of the 19th century came scientific discoveries that accelerated change in all of the health sciences. Dentistry was no exception.

The first specialized orthodontic book was written and published by Kneisel in Berlin, Prussia, in 1836. The first successful surgical closure of a palatal cleft was done in 1822 by von Graefe. James E. Garretson of Philadelphia, a skillful dentist and physician, established the success of oral surgery in North America and his *A Treatise on the Diseases and Surgery of the Mouth, Jaws and Associated Parts* became a classic. Angle, Black, Bonwill, Harris, Kingsley, Morrison and others in North America as practising dentists, European scientists such as Retzius, Nasmyth, Virchow, Pasteur, Koch, Purkyne, Röntgen, Müller or dentists such as Tomes, Magitot, Heider, Preiswerk, all influenced the gradual change in the delivery of dental services.

The discovery of general anaesthesia in 1844 eliminated the age-old problem associated with dentistry, namely the fear of pain. And, approximately forty years after the dentists Wells and Morton gave the medical profession the discovery of general anaesthesia, physicians gave dentistry the use of the local anaesthetic. Von Anrep, a physiologist from Würzburg, Bavaria, was the first to publish discovery of insensitivity to relatively sharp needle punctures after injection of a weak cocaine solution. A Viennese ophthalmologist, Karl Koller, followed up a suggestion from Sigmund Freud (who initially did research into that poorly understood drug) and in 1884 at an ophthalmological congress in Heidelberg demonstrated its anaesthetic effect on the eye when used topically.

The discovery of vulcanite and its application in prosthetic dentistry in the years 1851-1864 and improvements in the manufacture of porcelain teeth allowed dentists for the first time in history to offer satisfactory and reasonably inexpensive prosthetic service to edentulous persons. Although porcelain teeth had been used in France as early as 1774 and were introduced into North America in 1817, they were originally of extremely poor quality. Only later did their quality and esthetic appearance significantly improve and their manufacture become standardized. While in 1834, about 250,000 porcelain teeth were manufactured annually in North America, the figure jumped to about 2,000,000 in 1854, and in 1876 just one

company, the S.S. White Manufacturing Co. of Philadelphia, was making approximately 4,000,000 porcelain teeth annually.

The development by James B. Morrison of a foot-driven 2,000 rpm dental engine in 1871 opened a new vista for restorative dentistry. (We also owe to Morrison the first adjustable cast-iron dental chair.) This invention of an usable drilling engine made possible the execution of G.V. Black's postulate of "extension for prevention" in cavity preparation.

The end of the Amalgam War was in sight. Originally, the alloy was poorly made and misused by dentists, some of whom even made their own by filing down silver coins and adding mercury. The resulting restorations expanded until they extruded from the teeth or cracked them. Not until further research was conducted into the right mixture of amalgam alloy was this controversy settled (only to be resurrected in our own day in a controversy over amalgam's mercury content). This inexpensive restorative material became clinically acceptable to restorative dentistry only when G.V. Black formulated its ideal metal alloy composition, one which did not discolour and would be easy to manipulate but would be stable and strong once inserted. The great English scientist, physician, and dentist, Sir John Tomes, who took part in the Amalgam War controversy, after his own experiments declared in 1862 that "Dental Surgery has arrived at that point when mere opinion, unless supported by clearly stated evidence, cannot be accepted as a guide for practice."<sup>27</sup> It was not widely known that amalgam was actually not a new dental material. It was used, as a silver dough, in China from 659 A.D. In Central Europe it was used from the 16th century before its use spread to France and England.

In 1844, the use of plaster of Paris for impressions became the norm. In 1855 cohesive gold foil for filling teeth was introduced by Robert Arthur. In 1857 the impression compound was developed by Stent and the problem of how to attach the porcelain teeth to vulcanite bases was solved by P.G.C. Hunt. Bonwill demonstrated anatomical articulation in 1864, and in 1866 the fountain cuspidor was invented by Whitcomb.

The development of palatal obturators, which coincided with the sudden outbreak of perforations (the sequelae of syphilis brought by the explorers of the New World back to Europe), stagnated for a long time after the death of Ambroise Paré in 1590. Now rapid change took place as Kingsley of New York, Süersen of Berlin and Passavant of Frankfurt were able to construct them out of the new strong but elastic rubber material, vulcanite, which was resistant to deterioration. These new prostheses were based on scientific observations of the patient's anatomy and muscle movements. The "adhesive" gold, the use of which was based on the fact that annealed gold foil pellets could be welded together without heat but merely by applying pressure, was introduced to dentistry in 1857. The problem of achieving complete dryness, which this material required, was solved with the application of the rubber dam in 1864. The invention of a mechanical hammer made it possible to restore the anatomical shape of a tooth and to reestablish the contact points.

## THE RELATIONSHIP OF DENTISTRY TO MEDICINE

With this gradual change in the delivery of dental services, the question of whether dentistry was or would become a specialty of the medical profession—whether it would become a department within the medical faculty or be established as an independent profession—was frequently discussed by journals devoted to the health sciences, by medical and dental societies and by interested individuals. Broad-minded medical men such as Hunter had long realized the importance of the teeth and oral structures to one's general health and well-being, but the medical profession as a whole was at best uninterested in dentists or the importance of a healthy stomatognathic system.

This state of affairs much resembled the situation of a hundred years ago or more, when a physician would belittle a surgeon, or a surgeon would belittle an apothecary. At the end of the 18th century there were three different categories of medical people in Europe taking care of the sick: the physicians, the surgeons, and the apothecaries. Only the physicians were university trained, albeit frequently only with a B.A. degree and some additional knowledge of botany, anatomy and chemistry. Edinburgh in Scotland and Leyden in Holland, considered the only good medical schools in Europe at this stage in history, were the exceptions to this rule. Surgeons were organized in guilds and were considered skilled artisans who learned their craft by apprenticeship. Their stature increased during the Napoleonic Wars, when their services were badly needed in the army. Apothecaries were ordinary tradesmen who, in theory, were trained only to make drugs but who, in practice, treated those who could not afford a physician's services.

The relationship between dentists and medical men was cordial on a personal level but undefined and unsettled on the broad professional level. It was true, particularly in the 19th century, that a large part of dentistry dealt with procedures which were mechanical in nature. However, Norman W. Kingsley, President of the New York State Dental Society, argued in 1886

That which dignifies the practice of dentistry, bringing it above ordinary mechanics, is the fact that the operations are performed upon living organisms; and that which makes it professional is the knowledge of anatomy, pathology, etc., which discriminates in directing the mechanical treatment. ... That which makes dentistry as a science kindred to medicine as a science, is the fact that it deals with a small, but important, part of the human economy. But the equally great fact that its methods are entirely distinct, requiring special education and special training, makes it an independent science and in no sense subordinate to the other.<sup>28</sup>

In North America, unlike what occurred in Europe, dentistry established itself as an independent health service at a very early stage. Dentistry

became an independent profession, not through any spirit of rebellion against the medical establishment, but from sheer necessity. Most of the so-called “fathers of dentistry”—Lawrence E. Van Buskirk in Nova Scotia; Barnabus W. Day in Ontario; Sir John Tomes, the first President of the British Dental Association; Emile Magitot in France; F. Nessel in Bohemia and George Carabelli in Austria—were graduates of medicine. Also, Horace H. Hayden studied anatomy and medicine and only later turned his attention towards dentistry and founded the Baltimore College of Dental Surgery, which in 1840 became the first specialized dental college institution in the world.

### THE APPRENTICE AND THE STUDENT

The path from a trade to a profession, from an itinerant, self-made dentist to a resident one was slow, often tortuous, at times distorted. The changes came slowly, were often resisted by many, were welcomed by few. As one would expect, the arrangements between the apprentice and preceptor were quite frequently established on an *ad hoc* basis and were basically tutorial in nature. Studying consisted mainly of watching the established practitioner work in the operatory or in the laboratory, with such explanations as he might be disposed to give the apprentice. Artificial porcelain teeth were ground upon a small grinding stone like that used to sharpen kitchen knives and “plates” were polished by hand, by means of sticks dipped in oil and emery. At the beginning, such an apprenticeship was a loose arrangement without a binding legal contract and did not specify any length of time. Only gradually did it become a legal contract between the apprentice and the preceptor. The length of time for such an indentureship became specified and the dentist took upon himself the legal obligation to instruct and to teach the apprentice all that would be necessary in order to practice dentistry. At the beginning of this indentureship no salary was paid to the apprentice. In many instances, the apprentice had to pay the dentist for the privilege of working under his guidance.

Since most dentists did not share voluntarily their “knowledge” or procedural “secrets” with their colleagues, an apprentice was expected to pay for such disclosure. Such a practice was prevalent across North America and in England. For example, in 1820, the famous Eleazar Parmly listed preceptorship fees of up to \$1,000.<sup>29</sup> (An opening address at the 1851 annual meeting of the American Society of Dental Surgeons included an acknowledgement that many potentially good candidates could not afford exorbitant apprenticeship fees and were being forced to work for men who are not qualified to give them the necessary instructions. Some preceptors even “required of the student a bond, binding himself in a large sum not to practice within a given distance of his instructor’s residence; while others required the pupil to take an oath not to practice in his city, town or state.”<sup>30</sup> Moreover, just as the financial arrangements and quality of instruction

would vary, so would the length of such preceptorial studies. That such arrangements were far from ideal soon became obvious. With the establishment of the dental college in Baltimore, potential dental candidates soon learned that the easiest and most satisfactory way to prepare themselves for the practice of dentistry was to enter a dental school and obtain a diploma. This created a demand for more dental colleges and resulted in the creating of a large number of new schools. Unfortunately, some of them were chartered for purely business purposes. Fortunately for the newly emerging profession (and happily for the patients), those schools did not last very long.

The title "Doctor of Dental Surgery" was awarded for the first time by the Baltimore College of Dental Surgery to two graduates in 1841, but by 1849, sixteen graduated. The second North American dental school, the Ohio College of Dental Surgery, graduated its first class of four students in Cincinnati in 1846; Philadelphia and New York dental schools graduated their first six students in 1853 and 1864, respectively. The first Canadian dental school was located in Toronto and was run by the Royal College of Dental Surgeons of Ontario; it graduated its first class of seventeen students in 1879. In 1880, North America had sixteen schools of dentistry, with 730 students and 266 graduates; only twenty years later, in 1900, there were 54 dental schools, with 7,928 students and 2,029 graduates.

#### THE FORMATION OF ORGANIZED DENTISTRY IN ATLANTIC CANADA

The status of dentistry in Nova Scotia just before the transformation from its unregulated pattern into an organized profession is described by one of its founding members in the following article from 1889.

DENTISTRY IN THE PROVINCE OF NOVA SCOTIA - PAST AND PRESENT  
BY A.C. COGSWELL, D.D.S., HALIFAX, N.S.

Dentistry in the Province of Nova Scotia has steadily advanced as a science since 1862. At that time, with a population of about 200,000, ten dentists filled the bill for the whole province, not one of whom had a dental degree; two were M.D.'s and made dentistry a specialty. Three of the principal towns in the province had in each of them resident dentists. Halifax, a city of 20,000, had seven, while several of the latter visited periodically some of the towns and villages, as well as Newfoundland; and thus divided their skill and time as occasion required. And at that time a dentist had no professional standing, little attention had been paid by the inhabitants to the conserving of teeth, hundreds of valuable organs were removed to give place to artificial dentures, not that teeth could not be filled as well, and possibly in many cases more carefully and honestly done than in this age when time is considered more valuable, and quantity not quality seems too

frequently to be the incentive to action. As for permanency of work, done twenty years ago, many of us can testify from cases presented by patients, in whose mouths not only gold plates as well as gold fillings prove that skill was not wanting, even at that period of the profession in this province. Not later than last year a tooth was removed for a gentleman aged 80 years, in which the filling had done faithful service for 49 years, and had it not been for absorption of the process and loosening of the tooth, might have lasted as long again. Twenty and twenty-five-year fillings can be seen in very many patients' mouths in this city, still sound and good. At this date can be shown at any time, gold fillings placed in the superior central and lateral incisors proximal and distal surfaces, that were carefully and honestly made for a gentleman in the year 1852. Some 37 years ago without the slightest change or defect, these fillings were made by hand pressure and non-cohesive gold, and speak volumes for the operator, and credit to the patient for his care and preservation during the period named.

Dental prosthesis was probably more resorted to 20 years ago than at the present time, possibly for several reasons. First from the fact that so many persons had allowed their teeth to become so diseased and objectionable, besides suffering and inconvenience arising from exposed nerves and abscessed roots, that necessarily seemed to demand that something be done to alleviate pain and restore lost organs for speech and mastication, and as usual when a few in a community or city found beneficial results and improved appearances, many follow; again, treating exposed pulps, and restoring devitalized teeth was scarcely thought of, or at most if nerves were treated with arsenic, seldom or ever were they removed, but fillings were placed over the dead body, and ten to one if the patient was not obliged to have other tooth removed, feeling confident that by so doing "dead men tell no tales;" and as for beneficial results from that method, neither the dentist nor the patient would recommend or endure it.

While now the removal of teeth is confined principally to dentists, few people are willing to risk their jaws in the hands of unprofessional men. Twenty years ago, physicians, barbers, druggists, blacksmiths and handy men scattered throughout the Province, and in the city of Halifax, each possessed some unknown skill, that enabled them to use with wonderful dexterity a most valuable instrument called the Turnkey, that no doubt was invented at the time of the Inquisition, and this was made to do duty on all occasions, and when applied, something had to give way, "either by hook or crook" when Hercules stood in front of the patient with both hands applied to the instrument which was wound round with an old silk handkerchief, ostensibly to prevent the instrument pressing on the process, while the assistant firmly held the head of the patient between his knees, and pinioned his hands like a lamb led to the slaughter. And when the tooth was out the greater joy seemed to be expressed by Hercules, when he

exclaimed exaltingly "Oh, his jaw is not broken." It would be hard to describe the feelings of the victim unless we say as the boy did, that just before they killed him his tooth came out. While this describes the method of removing teeth some 20 years and more, I am sorry to say there still exists some relics of past ages in the city of Halifax owned and used whenever chance offers by unprofessional men, and owing to there not being any dental law to regulate the practice of dentistry, it is not unusual to have parties call with broken jaws from such piratical treatment. Not later than 1887, two cases were treated. In one case, the teeth were wired together and Barton bandage applied for ten days.

At the present time there are about 40 dentists practising in the Province with a population of about five hundred thousand. Some 20 of these are graduates of Dental Colleges and several have degrees of M.D. in addition. Most of the towns and villages support one or two, while the city has the largest number. Some six years ago an effort was made to obtain Dental Legislation, but it met with little support from the members of the country; and lacking that assistance desirable from those in the profession owing to their not being any interest manifested, it was not carried through the Legislature. But we feel hopeful ere long to secure a bill similar to Ontario and other places, and to put this province in a position to send our delegates abroad, and affiliate with other societies.<sup>31</sup>

In the early days of North American dentistry, some farsighted dentists recognized that it would be beneficial to organize a barrier to the promiscuous entrance into the profession of unqualified persons. There were many objections even amongst the more reputable and competent practitioners to any application for legal protection. Professional jealousy could be one of the main reasons: such a step was deemed to display modes of practice, not only to the public, but also to the scrutiny of colleagues. Good dentists were few in numbers, usually isolated from each other by vast distances in an age when communications were slow and unreliable. They had little formal scientific education and their services were not usually held in high esteem.

This situation gradually began to change with the establishment of dental schools, with publication of the first dental scientific journals and with the improvement in communication by the construction of railroads. A college degree and a subscription to a new officially published periodical that disseminated fresh ideas gave isolated practitioners a sense of belonging to a larger group, a feeling of accomplishment and prestige not only in their own eyes but also in those of their clientele. This was so, even when one must add that they frequently would be no better prepared to render dental services than their self-made confrère of yesteryear.

In Canada, the first Dental Act was proclaimed in March 1868 in Ontario. (Ironically, perhaps, the first act intended to regulate the practice of

dentistry in North America, approved in Alabama in 1841<sup>32</sup> sought to keep the provision of dental services entirely in the hands of physicians and general surgeons of that state.) Nova Scotia's first attempt to regulate dentistry came in 1869; its failure can be partly attributed to the activities of the itinerant dentist Louis de Chiverie (spelled "Chevry" by some), who preached to Haligonians against the passage of such a law to incorporate the dental profession in their province.

In 1871, the *Canada Journal of Dental Science*, in its leading editorial lamented this turn of events in an article written by Dr. W.G. Beers, who some consider to be the father of dentistry in the Province of Quebec:

#### POOR NOVA SCOTIA

We are deeply moved by recent news from Halifax, and now that the "Blue Noses" are part and parcel of ourselves, our interest in them has increased. But, alas! What has poor Nova Scotia done that she should continue to be afflicted with that little quintessence of quackery and rascality styled De Chevry, who, it appears by the Acadian Recorder, recently appeared in Halifax in a sleigh drawn by four white horses, and "lectured" a gaping crowd against the passage of a law in Nova Scotia incorporating the dental profession. Surely the most untutored legislator in the Nova Scotian Assembly will need no further argument in favor of a Dental Bill than De Chevry's last exploit; and we have sadly over-estimated the intelligence of our "Blue Nose" legislators, if they do not comply with the appeal of Dr. Cogswell and other respectable practitioners, and pass a law which will rid their province of all such quacks, as effectually as St. Patrick cleared the snakes out of Ireland. We hardly think the incursions of the Yankee fishermen half as detrimental in the long run to the Nova Scotians, as the presence of that miserable little whelp, De Chevry, who has destroyed enough teeth in this city alone to build him a monument. We pity poor Nova Scotia, and will gladly sing out "Hurra!" when a Dental Bill is passed.<sup>33</sup>

New Brunswick was Atlantic Canada's first province to proclaim its Dental Act, in 1890. It was achieved mainly through the efforts of Dr. C.A. Murray from Moncton. Thanks to his initiative, interested dentists met one December 1889 evening in the office of Dr. James M. Magee of Saint John. Upon discussion of various ideas the following resolution was adopted:

It is desirable in the interests of the profession and the public generally, that a society of the dentists of the Province of New Brunswick be formed, and a bill regulating the practice of dentistry in the Province of New Brunswick be drafted and presented to the legislature at its next session.<sup>34</sup>



The New Brunswick act created the New Brunswick Dental Society, composed of all persons who registered according to it. It also formed a Dental Council composed of seven members, three of whom were appointed by the Governor-in-Council, and four by the Society. The Council had the power to cause all practitioners to register in the Dental Register, the fee to be not less than \$1 nor more than \$5, and to levy an annual fee of not less than \$1 nor more than \$3. The Registrar of the Council was compelled to keep a correct register of all authorized dentists. Persons entitled to be registered were those who had diplomas from dental schools recognized by the Council or who had been in practice in New Brunswick before 1889 and continued regularly thereafter. The Council had the power to erase from the register any name placed therein by fraud, and publish the name of such person. Any registered dentist convicted of felony forfeited his right to practice. Practicing without being registered was punishable by a fine of \$20 for each day of practice.

The "Original Professor" Napoleon Ashley, the itinerant dentist from Montreal, was fined for illegal practice and was forced to leave New Brunswick. Unfortunately for Atlantic Canada, he did not leave the region to return to his native Quebec but merely transferred his attention—and his group of entertainers—to other Maritime provinces. His visit to Charlottetown ended calamitously when a Mrs. McDonald of Charlottetown bled to death the night after he extracted a lower molar tooth, notwithstanding his magic elixirs and remedies. Ashley left the town and the Island in a hurry. Just like Painless Parker, he seems always to have been one step ahead of either the law or an irate patient.

Forty dentists were registered in New Brunswick during the first year of the proclamation of the Dental Act; some who were entitled to be registered did not apply for it. At a meeting in Fredericton, August 12, 1890, the following men were elected to act on behalf on the New Brunswick Dental Society: President, A.F. McAvenney, Saint John; Vice-President, B.H. Torrens, Fredericton; Secretary, James M. Magee, Saint John. Drs. Magee, McAvenney and Godsoe were appointed to a committee on by-laws. Drs. B.H. Torrens of Fredericton, J. M. Magee of Saint John, W.H. White of Sussex, and W.D. Camber of Woodstock, were elected members of the Council by the Society. The government appointees to that body were Drs. A.F. McAvenney and C.A. Murray of Moncton, and G.J. Sproule of Chatham. A code of ethics was drafted and by-laws defined what would constitute unprofessional conduct. An amendment in 1893 provided for a Dental Examining Board for the province. Before this date, a diploma from a recognized college was deemed sufficient for registration. In 1908, New Brunswick's population of over 330,000 was served by 76 dentists.

Prince Edward Island's Dental Act was proclaimed in 1891. It was secured by the efforts of John S. Bagnall, the first native Prince Edward Islander to practice there with a dental degree and father of J. Stanley Bagnall, who became dean of dentistry at Dalhousie University. When the

first legislation was passed, it entitled a person to register on completion of two years' study. This act was narrowly conceived and when the Prince Edward Island Dental Society was incorporated in April 1902, its first priority was to improve on the original legislation. Amendments made in 1904 and 1906 clarified who was entitled to register to practice dentistry on the Island. It established an Examining Board and empowered the Dental Council to appoint examiners and to require any applicant who did not hold a Dominion Dental Council certificate to pass an examination in dentistry. The matriculation fee where an examination was deemed necessary was \$10; the registration fee was \$15 and there was an annual fee of \$2 (subject to change). The penalty for practicing without being registered on the Island was established at \$25 for each and every offence. In 1908, the Prince Edward Island population of 109,000 was served by nineteen dentists.

Nova Scotia, after an unsuccessful attempt was made in the 1860s, obtained its Dental Act in May 1891. On June 2, 1891, the first meeting of the Nova Scotia Dental Association was held in Halifax, and the following officers were elected: President, Dr. A.J. McKenna, Kentville; First Vice-President, Dr. F.W. Ryan, Windsor; Second Vice-President, Dr. A.W. Cogswell, Halifax; and Secretary-Treasurer, Dr. Frank Woodbury, Halifax. The Nova Scotia Dental Board was organized, consisting of the registrar and seven members of the Association (four appointed by the Governor-in-Council and three elected by the Association). Candidates for license to practice had to be twenty-one years old. He must have presented a satisfactory certificate of character, and the matriculation certificate, and pay a license fee of \$10. He must have been a student for thirty-six months with a licensed preceptor, or in a dental college, and if a graduate, must have possessed his diploma. He would then undergo an examination, written, oral and clinical, but any person, possessing a diploma, who has been a student for thirty-six months, might be registered without an examination. While in 1892, the membership of the Nova Scotia Dental Association stood at 68, in 1908, Nova Scotia with a population of 460,000 had 116 dentists.

Newfoundland's dental legislation came in 1893 when the first Dental Act was passed. This Act set up a Dental Board which consisted of four physicians or laymen appointed by the Government and three dentists. It is worthwhile to note that the first resident dentist did not come to St. John's until 1870, an American, Dr. Brunett. Within the next twenty years, only three other dentists came to settle there, Drs. Burns, Hallett and Bullard. In 1908, Newfoundland's population of 224,000 had five dentists to serve their needs. Even when Newfoundland joined the Confederation its population of 360,000 was served by only seventeen dentists.

In its first years of existence the Nova Scotia Dental Association was not without its share of problems regarding applicants for registration in the province. As Dr. G.M. Dewis stated it "became apparent that many of the men did not possess qualifications and frequently resorted to political influence and were successful in obtaining a special act of the legislature

permitting them to have their names placed on the Dental Registrar.”<sup>35</sup> The first such private bill was passed in 1899, in spite of strenuous efforts on the part of the Dental Board to defeat it. The second one, in 1901, was defeated, but in 1903 a bill exempting five unqualified men from the matriculation examination was passed.

The Nova Scotia Dental Association was the first dental association in Canada to pass officially resolutions favouring interprovincial registration throughout the Dominion. In 1893, at the Association’s third annual meeting, Dr. Frank Woodbury read a paper entitled “Reciprocity between the Dental Boards of the Dominion of Canada”, which, because of its importance, is given here in its entirety:

RECIPROCIETY BETWEEN THE DENTAL BOARDS OF THE  
DOMINION OF CANADA.

(Read before the Dental Association of Nova Scotia, September 27th, 1893.)

BY FRANK WOODBURY, D.D.S., HALIFAX, N.S.

The following statements are only intended to open the question for discussion in this meeting, and do not pretend to be at all complete or exhaustive of the subject, but if our discussion should result in resolutions that will put this Association in correspondence with the other Dental Societies of the Dominion, my object will be gained.

Every Province now has a Dental Law of some kind, and the profession, from the Atlantic to the Pacific, can be reached officially by correspondence.

Upon examination it will be found that the literary requirements for Matriculation as a student of Dentistry are very similar in all the provinces. That the time of studentship does not vary much. From three to four years, including college course, is required by every Board in the Dominion.

Ontario and some other Provinces require that students shall be articulated to a Preceptor under a definite contract. Nova Scotia demands 36 months studentship and requires the certificate of Preceptors to prove it.

Nearly all Boards recognize the degrees from a certain number of reputable colleges, which are agreed upon by the Dental Executive Board, and all applicants not possessing these, must pass a certain examination, even if holding a degree from a College which is not recognized. This gives the Board practically the power to recognize none, or one, or any number of colleges, yet by not having a Common Law or Reciprocity between the Associations there are a half dozen other sections of our country where a member of the profession practising in any one, cannot go without undergoing some sort of a Professional or Matriculation Inquisition. Granted that men should be able to meet a certain standard of literary qualification, and the standard should be high enough to guarantee an intelligent professional studentship, and

culture enough to provide to each a mind well trained to think and capable of grasping the profession in its best sense. In no particular lower the standard, but rather raise it as fast as the facilities for education increase. The High School is at every young man's door. The State has undertaken to provide the present generation with educational advantages and mental training such as the world has never before seen, and Dental Surgery should demand of men now entering it, the highest necessary preliminary qualifications.

If I am informed correctly, every Board in the Dominion could agree upon a uniform standard of Matriculation without great change to any curriculum. Now we come to the length and quality of the term of studentship.

It is my opinion that none of the provinces exact too long a period. I think four years better than three. The physician can make a greater success on a three year's course than the Dental surgeon can.

There are few occupations that require such continued delicacy and precision of manipulation, and this can only be acquired by practice.

Some Boards require that after matriculation the student shall sign articles with some registered practitioner, and shall by this ensure attention, and practical tuition in operative and mechanical Dentistry which might not be given him under such a system as prevails in this Province at present. It can readily be seen that while we require a three years' studentship and ask for proof of it, in a large number of cases we shall not be able to trace it, and there will be a great tendency to waste the time between college terms, with only nominal connection with some Dental office. In Ontario and some other Provinces the student is compelled by his agreement to spend all his time in either office or college. This should secure the best results. It gives the college lecture and clinic and office practice their proper place. We could with great benefit to the profession, to students, and satisfaction to ourselves, adopt this method of articling our young men, and thus securing the best results obtainable from this branch of student life.

Next comes the college requirements. Nova Scotia recognizes some 30 Dental Schools as reputable, and accepts the degrees from them in lieu of professional examination, but we do not accept their matriculation examination, because in most cases it is far below our own standard. Ontario does not recognize for practice the degree from any college, not even Toronto University, but compels all students to attend a three years' course in the Royal College of Dental Surgery and confers upon them a license to practice in Ontario if they pass. A practitioner from another Province desiring to practice in Ontario, must produce credentials equivalent to the Ontario standard of matriculation and a diploma from some recognized Dental School in order to be admitted, not to practice, but to the senior year of the Royal College of Dental Surgeons of Ontario, and after passing the final examination he may have the title of L.D.S. conferred upon him.

New Brunswick will only admit members of the profession from another Province after they have been residents of N.B. for three months and have passed an examination before their Board.

These are a few of the distinctive features of some of the Provincial laws

Now, gentlemen, we must not look upon this heap of Provincial legislation as selfish means used to save all the patronage for the men in each Province. None are intended for offensive warfare, but are walls of protection for the public and profession. They are serving an excellent purpose. This legislation has been indeed a ladder upon which the profession is steadily climbing to its proper position among men. All the Associations have been inspired with the same unselfish motives and noble purposes. We understand why our own law exists. Up to this point the various Provincial Acts represent a stage in the growth of the profession. Each Provincial law has been a centre of crystallization and unification for the individuals in the separate Provinces and the amendments from time to time have represented the growth that has taken place. The advance has sounded all along the line, but to make a familiar illustration, these Acts are like the centres of ossification in a molar - fine cusps, good structure, correct in form, but the sulci are not complete and show weakness, and are open to attack because not well united. They do not exactly match.

Many of the best colleges have recently extended their course to three years, and no one says with truth that their professional training is not excellent. It seems that with proper guards around the Matriculation qualifications and office studentship, that graduates from our own or any foreign college should be given the license to practice anywhere they please in the Dominion.

In conclusion, it would seem that if the Associations would rearrange their qualifications for practice that they might agree sufficiently well to be recognized throughout the Dominion. It would be a stride in advance, and would give our profession in Canada an esprit du corps that would surprise the most sanguine, and lead to the establishment of Colleges of Dentistry in various parts of our Dominion, as well as be an object lesson to other countries and some older professions.<sup>36</sup>

Discussion of Dr. Woodbury's paper resulted in the adoption of the following resolutions:

Whereas, Believing that the Dental Profession in Canada has arrived at the stage of the development that renders it desirable that the standard of qualification for the practice of Dental Surgery in each Province should agree sufficiently well to be recognized and endorsed by all other Boards of the Dominion; and

Whereas, It is the desire of the Dental Association of Nova Scotia to promote this object,

THE MARITIME  
DENTAL ASSOCIATIONS,

Will hold a Joint Meeting at  
DIGBY, NOVA SCOTIA,  
IN I. O. O. F. HALL,  
SEPTEMBER 1st and 2d, 1898.

OFFICERS  
N. B. and P. E. I. Dental Society.

**PRESIDENT.**  
DR. H. C. WETMORE, ST. JOHN.

**VICE-PRESIDENT.**  
DR. H. B. TORRENS, FREDERICTON.

**SECY-TREAS.**  
DR. C. F. GORHAM, ST. JOHN.

OFFICERS  
N. S. Dental Society.

**PRESIDENT.**  
DR. G. K. THOMSON, HALIFAX.

**FIRST VICE-PRESIDENT.**  
DR. M. P. HARRINGTON, BRIDGEWATER.

**SECOND VICE-PRESIDENT.**  
DR. M. K. LANGILLE, TRURO.

**SECRETARY.**  
DR. J. A. JOHNSON, PARRSBORO.

**SECY-TREASURER.**  
DR. A. W. COGSWELL, HALIFAX.

PROGRAMME.

FIRST DAY THURSDAY SEPTEMBER 1st, 1898.

**MORNING SESSION, 9.30 A. M. TO 12 A. M.**

Organization: Election of Officers, General Business.

**PAPERS.**

"Nitrous Oxide-Gas," Dr. C. A. Murray, Moncton.

**CLINICS.**

"Cautour American Fillets," Dr. J. M. Angus, St. John.  
Selected, Dr. Geo. W. Roberts, Lunenburg.

**AFTERNOON SESSION, 2 P. M. TO 5 P. M.**

**PAPERS.**

"The Practical Value of Chemistry in Dentistry," Dr. H. C. Wetmore, St. John.

"Nisotama," Dr. A. C. Fingwell, Halifax.

**CLINICS.**

Selected, Dr. A. J. Sawyers, Manchester, N. H.  
"Practical Office Pointers," Dr. H. Woodbury, Halifax.

**EVENING SESSION, 7.30 P. M. TO 11 P. M.**

**PAPERS.**

Address by President Eliot.  
Selected, Dr. T. W. Davis, Montreal.  
"Education of Dental Surgeon," Dr. F. Woodbury, Halifax.

**QUESTION BOX.**

Questions will be received by the Secretary, in writing, any time before the meeting, as well as at the meeting.

SECOND DAY FRIDAY, SEPTEMBER 2d, 1898.

**MORNING SESSION, 9.30 A. M. TO 12 A. M.**

**PAPER.**

"Cathartosis," Dr. P. Brown, Montreal.  
"Factors in Relation to Deciduous Teeth," Dr. J. S. Bogswell, Lunenburg, P. E. I.

**CLINICS.**

Selected, Dr. G. P. Whitwell, Boston, Mass. (Boston Dental Laboratory.)  
Presentation of cases, models and dental appliances.

**AFTERNOON, 2 P. M.**

Excursion on the harbor to Annapolis Royal, and exploration of Old Fort and other places of interest.

**EVENING SESSION, 7.30 P. M. TO 10 P. M.**

Devoted to the Exhibits of the following Dental Firms —  
Brown & Webb, Halifax, will represent the S. S. White Mfg. Co., with a full line of dental goods.  
C. R. McDowell, Montreal, will make a display of dental goods including electric engine, water motor, spittoon, chair, cabinet, etc.  
Dominion Dental Manufacturing Co., Montreal, will also have goods on exhibition.  
Boston Dental Laboratory Co. will show samples of the various kinds of work done by them, as follows — Rubber Plates, Celluloid Plates, Rubber Plates with celluloid gums, Gold Plates, Fusible Metal Plates, Chase Combination Plates, Aluminum Plates, Continuous Gum Work, Crown and Bridge Work in Gold and Porcelain, and Carved or Hand-Made Teeth.

Supper at 10 p. m.  
Papers must not occupy more than 20 minutes in reading.  
Copies of papers to be read will be distributed in order to facilitate discussion.  
Dental exhibits must close during the hours of each session.  
Every dentist should attend this meeting.  
On receipt of this programme, recipient will please write to the Sec'y, if he will be present at the meeting, so that hotel accommodation may be arranged.

**SPECIAL NOTICE**

The N. S. Dental Society and Provincial Dental Board will hold their eighteenth annual meeting, Wednesday, August 26th, and will discuss all business in time for the next meeting.  
August 26th, afternoon, Business Meeting of Executive Committee.  
Business Meeting of Provincial Dental Board of N. S.  
The N. B. Dental Society will hold their ninth annual meeting, Thursday, Aug. 26th, at Sec'y's office, 42 College St., St. John, and adjourn to meet at Digby, Aug. 27th, and will discuss all business in time for joint meeting.

*The 1898 programme of the joint meeting of the Maritime dental associations*

Therefore resolved, That this Association hereby recognizes the advantages and necessity of having the qualifications for practice in Dentistry in any Province recognized and indorsed by all other Provinces of the Dominion; also,

Resolved, That the Secretary be instructed to correspond with

the Associations of the other Provinces of the Dominion asking them to discuss the question at their next annual meeting and to appoint a representative to meet or correspond with representatives from the other Associations, for the purpose of formulating a standard of qualification to be presented at the next succeeding annual meeting of the Societies for endorsement.

Resolved, That the period of studentship should be increased to four years in this Province, and for the securing of better results and the protection of the students there should be a legal form of articles signed by preceptor and student, and that the Dental Board be authorized to prepare a Bill for presentation at the next session of the Legislature.<sup>37</sup>

The proposed plan was a mutual arrangement among the various provinces and did not contemplate a Dominion act of parliament. It was, however, the origin of the idea that later developed into the organization of the Dominion Dental Council.

As early as 1900, the Maritime Dental Association was organized in Saint John, New Brunswick, but although this body met on several occasions, it was finally disbanded. Joint meetings of the Maritime dental associations were initially more successful but were later abandoned.

More successful were the attempts to ensure uniformity of dental acts within the region. At a union meeting of the Nova Scotia, New Brunswick and Prince Edward Island associations, held in Halifax in 1905, it was agreed that each society should apply to its local provincial legislature to obtain this goal.

#### THE LAW OF UNINTENDED CONSEQUENCE

Dentistry throughout the Maritimes, just like elsewhere in North America, was going through a transition period. People who claimed to practice it had to adjust to a new environment, new challenges. The idea of a trade was well understood in the Maritimes of colonial days and practiced in the past while the ethic of a profession still had to be learned. Some had the notion that establishing dentistry as a profession would add dignity to the dentist. They did not grasp that this idea is false; that it is the person who dignifies the profession. As it is in many other fields of human endeavour, the Viennese philosopher Karl Popper's dictum of the "law of unintended consequence" changed the original intentions of the newly formed dental organizations. The legislation for the creation of organized dentistry did not, as many dentists seemed to expect, become the real basis for the newly emerging dental profession in the Maritimes. As elsewhere, it would be education and the formation of a school of higher dental learning that became the real basis for the dental profession.

# I. THE MARITIME DENTAL COLLEGE

*The Educational Institutions of a country are the gauge of its intellectual strength.*  
F. Woodbury

## THE FOUNDATION OF THE DENTAL SCHOOL FOR ATLANTIC CANADA BY THE NOVA SCOTIA DENTAL ASSOCIATION

In 1889, there were forty dentists practicing in Nova Scotia. Some of them would have been graduates from the newly established dental schools in the United States, as the absence of a dental school in the region had led more and more young Maritimers who wanted to become dentists to go south (or, in later years, west) to study for their new profession. Twenty years later, this remained the case: according to the 1909 Canadian Dental Directory, all practicing dentists in the Maritime provinces who had a DDS (83.8 per cent of Nova Scotia dentists, 52.4 per cent of Prince Edward Island dentists, and 47.5 per cent of New Brunswick dentists) had received their degrees from schools located in the United States (table); none was a graduate of either the dental school in Toronto or that in Montreal.

The development of dental education in the Maritimes followed a pattern that had become established elsewhere in North America: first, a legal body was formed that was to determine the requirements for practice in a province or state; second, a mechanism was set up for examining the qualifications of candidates for practice; and third, a school of higher learning was formed which would educate students to meet the required standard.

In Nova Scotia, as in Ontario and Quebec, the impetus for establishing a dental school started under the auspices of, and with the financial assistance of, the Provincial Dental Board. In 1899, a committee was appointed for the purpose of establishing a dental college, in affiliation with Halifax Medical College and Dalhousie University. The final steps leading to the formation of a dental school in Halifax were taken by a group of dentists, under the leadership of Dr. Frank Woodbury, at a meeting of the Nova Scotia Dental Association (NSDA), in September 1905. The report of



Registered Dentists in the Maritime Provinces, 1909, by School Granting DDS

	Nova Scotia	New Brunswick	Prince Edward Island
Philadelphia Dental College	29	7	-
Baltimore College of Dental Surgery	24	10	6
Univ. of Pennsylvania	17	7	1
Univ. of Maryland	8	1	-
Tufts Univ.	4	7	1
Boston Dental College	6	-	1
Harvard Univ.	2	2	1
New York	1	3	-
American College of Dental Surgery	2	-	-
Univ. of Michigan	1	1	-
Denver	1	-	-
Indiana Dental College	-	-	1
unknown	-	1	-
no DDS	19	43	10

the Committee on Affiliation, which consisted of Drs. F. Woodbury, G.K. Thomson and F.W. Ryan, was as follows:

The Halifax Medical College and University of Dalhousie have made important propositions to the Dental profession through the Committee on Affiliation appointed by the Nova Scotia Dental Association. (The purpose of the Committee is to promote educational interests.)

These propositions are deemed of sufficient importance to be brought to your attention previous to the joint meeting of the Dental Association of the Maritime Provinces to be held in Halifax on September 6-8 next.

1st. The Halifax Medical College and University of Dalhousie have approached the Committee respecting the feasibility of establishing a Dental College for the Maritime Provinces. The matter has received careful attention in all its bearings, and we believe that a Dental College can be organized and maintained by the Maritime Provinces which will claim first-class standing among like institutions on the continent.

Apartments in the main building of Dalhousie University have been offered for this purpose.

All lectures, clinics, practical work and hospital attendance not distinctly dental can be secured from the institution named. Dental students will have the same standing and enjoy all the privileges of

the University and Medical College. There is no question but that sufficient talent is at hand to conduct the Dental subjects.

Dalhousie University will erect a Dental Faculty of Examiners and confer the Degree of the University. Arrangements can be made whereby students may secure the Degree of M.D., C.M. and D.D.S. if they so desire.

Under the present laws in force in the Provinces and Territories west of the Maritime Provinces (except British Columbia), our students are barred from registration, except under conditions that might be termed oppressive. This can be remedied if we organize a Dental College that meets the demands of those Provinces and Territories. It seems only fair that we should conduct an institution that will prepare our own men for practice in our own Canada.

2nd. In order that Dental students shall have the privilege of studying Medicine in connection with Dentistry, if they so desire, it is advisable that the Dental and Medical standards of matriculation be the same. Upon examination it will be found that the Medical is not more difficult than the Dental standard, but simply different in some minor points. By harmonizing these the difficulty is overcome.

The matriculation standards of the General Medical Council of Great Britain are recognized throughout the Empire. The matriculation of the Medical Boards of Canada is included in these. The standard erected by the Dominion Dental Council is also probably included. We therefore suggest that the matriculation standards of the British Medical Council, as far as they refer to Great Britain and Canada, be adopted. Also that the Provincial Dental matriculation examination be made the same as the Provincial Medical Board of Nova Scotia.

The options accorded by such action will relieve our students of many hardships and establish a permanent curriculum. The main points upon which the law needs revision to adopt it to the standards of the rest of Canada are: Studentship of 42 months, four winter terms in College of at least seven months each. Professional examination for all candidates for registration; also provision in the law for the establishment of a Dental College, and to provide for the title of Licentiate of Dental Surgery to be conferred on all licensed dentists in the Province.

3rd. The Dental Laws of the Maritime Provinces are so different from the laws of the Western Provinces and Territories that Eastern men are practically prevented from going into the Northwest, which for many years to come will be the most attractive field in the world for young men of our profession.

The Dominion Dental Council has established a curriculum that is equal to the best standard in Canada. Students in the Maritime Provinces shall be asked to qualify upon these standards. The laws as at present do not meet the requirements of the West. While our standards are low, this will be the territory to which those who fail in other Provinces will come.

As long as the laws remain as they are now a Dental College in the Maritime Provinces cannot exist.

The Committee to whom these suggestions have come desire to place them before the profession in order that the fullest discussion may be had upon them and if possible a definite advance step may be taken in Dental Education in the Maritime Provinces.

In connection with this report, the following resolutions were offered and adopted:

RESOLUTIONS RE DENTAL COLLEGE, ETC.

Whereas, This Association believes the time has come for the establishment of a School of Dentistry in the Maritime Provinces; and

Whereas, The Halifax Medical College and the University of Dalhousie have manifested great interest in such a school and evidently desire to help it in a substantial way; therefore

Resolved,

1st. That this Association approves the proposition to establish a Maritime Dental College.

2nd. That it shall be of such grade that it will challenge the respect of the profession and conform to the standards of the Dominion Dental Council.

3rd. That if necessary permissive legislation be secured that will authorize the establishment or allow this Association to co-operate with the other Maritime Provinces in the establishment of such a Dental School.

4th. That the Provincial Dental Board is hereby authorized, through a Special Committee of three persons, who shall be called the Committee on Dental Education, to enter into correspondence with the Dental authorities in the other Maritime Provinces concerning this matter, and, if possible, to secure like Committees from the other Societies, which may work together to secure all necessary data and form a workable basis of organization.

5th. That we instruct the Executive Committee of the N.S. Association to arrange for the next Annual Convention as early as the by-laws will allow, in order that the report of this joint committee may be received in time to establish the College and open it for students in the autumn of 1906 if found desirable.

6th. That these resolutions be sent to the Dental Association of New Brunswick and P.E. Island through the Committee on Dental Education, which is instructed to open negotiations at once.

On motion the report as a whole was adopted.

The philosophy of the proposed dental school, as endorsed by the NSDA, was to be based on a "scientific" philosophy of dental education, rather than a "mechanical" one.

## THE FUNCTION OF THE SCHOOLS

We frequently hear the charge urged that dental schools are engaged in making scientific men, and not dentists; that they teach too much of theory and too little of practice. Instances are cited of graduates who were unable to insert as good a filling as some practitioners who had never attended a college. These criticisms are almost invariably made by illiterate men, who affect to despise book knowledge, and who claim that they themselves, all unlettered as they are, can teach a student more of dentistry than any school in the land.

When such an imputation is made, it is well to inquire what is understood by dentistry. If it be the extraction of teeth and the insertion of cheap rubber substitutes, robbing the people of the organs supplied by nature that fees may be charged for the frightful caricatures of the shop, there may be a modicum of truth in these assertions. That was the dentistry of a half-century ago. The practice of today is a very different thing. The schools teach that the first duty of the dentist is to save teeth, and this demands a knowledge of something more than extraction. The practitioner of today must be competent to treat all forms of oral disease, and this requires a knowledge of physiology, of pathology and therapeutics. The man who knows nothing but the making of false teeth, is no more worthy the name of dentist than is the man who makes wooden legs entitled to the name of surgeon. Even the ability to insert a thoroughly compacted gold filling does not make a dentist. He may have attained to the highest point in manipulative ability, and yet be nothing more than a mechanic. There is altogether too much of this judging of a man's professional standing by his mere skill in technics. Something more is demanded from a really professional man.

Not infrequently do we hear it said that Dr. A is an excellent dentist, because he has the ability to make a beautiful artificial denture, when he knows nothing of the broad principles upon which a really intelligent practice is founded. Or Dr. B. may have won a great reputation as a professional man, because he can with a mallet hammer gold into a cavity in a tooth, and so finish it as to make a fine artistic display. We do not mean to undervalue or depreciate these accomplishments. They are essential to a thorough dentist, but they are far from being the only qualifications needed. Indeed, they are not the first requisites. A beautiful and substantial filling may be inserted in a tooth that was in no condition to receive it, and it may be but an injury instead of a benefit.

The education of the dentist should not begin in either the laboratory or the operating room. Before the student is prepared to commence operations in the mouth, he should be taught the underlying principles upon which a true practice must be founded. He must learn what is disease, and the steps necessary to secure a return to health. To put even the finest filling into a diseased tooth,

perhaps over a dead and putrefying pulp, is not dentistry. To insert even the most beautiful artificial plate over tissues that are in an inflamed and sloughing condition, is not good practice. The dentist who is worthy the name of a professional man, must be able to diagnose disease of any of the tissues of the oral cavity before it is too late for cure. He should recognize inflammation of the osseous structure in advance of necrosis, and be able to use the proper remedies, both local and general, before a resort to surgical means becomes a necessity.

There is among dentists a great misconception of what is truly practical. As has been very wisely said, all true practice must be founded upon true science. There must first be a comprehension of what is physiological law, before one is fitted to deal with pathological cases. This world is not ruled by mere chance. It is governed by immutable, unchangeable principles, whether it be in its diurnal revolutions and the succession of the seasons, or in the evolution of a blade of grass. All function is the result of certain fixed regulations, and all disease is the result of violation of these physical statutes.

He who comprehends law and the principles upon which it is founded, is the only really practical man. If he be consistent, he is intensely practical, and is impatient with error and falsehood because they are not practical. He loves science because it is the only gateway to really practical achievements. He knows that he cannot really be practically unless he is first scientific, for all practical things must rest on a scientific basis. Science is law, and without it there can be nothing practical, or really practicable.

Hence, the scientific man alone is really practical. Many enjoy rhetorical flourishes in speeches and writings, but an ounce of logic is worth a ton of rhetoric, and all really learned men despise mere verbiage, and stick to the realm of the practical.

Dental students must remember, then, that their education should begin with the study of the laws which govern all practice, that they may comprehend what is necessary to be done, and then proceed in the only really practical way, that which is in conformity with law. The principles which dominate practice once fairly mastered, the technical skill properly to perform operations is easily acquired, and must largely be obtained in daily practice after graduation at the schools. Dr. W. C. Barrett in *Dental Practitioner and Advertiser*.<sup>4</sup>

Moreover, in a bold departure from the policy in other parts of the country and the continent, the planned school was intended to meet the needs of the whole Maritime region—that is of Nova Scotia, Prince Edward Island and New Brunswick—not just those of one province or a state.

In 1905, this Committee on Affiliation was approached by the faculty of the Halifax Medical College with a view to establishing a dental college and offering its assistance. Negotiations for the establishment of such a college,

according to the plan originally advanced, resulted in the organization of the Maritime Dental College.

The progress of negotiations—or the lack of it—was reported by the Committee on Education Re Dental College to the NSDA at its 1906 annual meeting, held in Bridgewater:

GENTLEMEN, Your Committee begs to report that we have endeavored to communicate twice with the New Brunswick and Prince Edward Island Associations, but have failed to secure a reply in any case.

We presume that no steps have been taken on their part to co-operate with Nova Scotia in establishing a Maritime Dental College. We may receive some information at the annual meeting of these associations.

We deem the offer made by the Medical College of Halifax, and Dalhousie University, a rare one. It is not often courses of lectures and apartments can be secured on such favorable terms.

We beg to ask that the resolutions re Dental College, found on page 14 of the 1905 Transactions, be approved, with an amendment to Clause 3, which will then read: "That permissive legislation be secured that will authorize the establishment, with or without the co-operation of the Maritime Provinces, of a Dental School."

The Committee secured through the Dental Board the amendments suggested, re Matriculation Standards, but thought it wise to continue the old course in connection with it for at least one year longer.

It is recommended that the Board be instructed to have the old syllabus repealed.

It was considered wise in view of the proposed united effort of the Maritime Provinces respecting amendments to the Dental Law, that the changes be postponed for one session of the legislature.

Your Committee ask for endorsement of their action, and recommend that an effort be made during the coming session of parliament to secure needed amendments, also that the Dental Board be authorized to make any necessary modifications that seem necessary in the proposed legislation, so long as it does not interfere with our regulations with the Dominion Dental Council.<sup>5</sup>

Upon the approval of the Report by the NSDA, the enabling Act to establish a dental school, either independent of or in affiliation with a university or a college, was passed by the Nova Scotia legislature in 1907.

This was reported back to the NSDA at its 17th Annual Meeting, July 31, 1907:

THE DENTAL ACT  
(Passed the 25th day of April, A.D. 1907.)

Be it enacted by the Governor, Council, and Assembly as follows:

I. Chapter 105 of the Revised Statutes of Nova Scotia, 1900, is

amended by adding thereto the following sections, viz.:

39. The Association shall, with the approval of the Governor in Council, have power and authority to establish, or cause to be established, a college of Dentistry in the City of Halifax, to be called "The Maritime Dental College"

40. The Board may from time to time make rules, regulations and by-laws relating to the courses, curriculum and standards for examination, and all such other rules as may be necessary for the establishment, guidance and discipline of said college.

41. The Dental Board may make arrangements with any University or College for the attendance of students of the Dental College at such lectures or classes in any such University or College as may come within the course or subjects of instruction prescribed for such Dental College, and may agree with any such University or College for the use of any library, museum or property belonging to, or under control of, such University or College, and may affiliate with or secure any dental or medical degree from such University or College for which the students of the Dental College may be qualified.

42. The Dental Board shall accept persons holding the certificates of qualification of the Dominion Dental Council of Canada for registration without examination, providing that all other qualifications imposed by the Board are met.

It will be seen upon examination that a general permissive act to establish a Dental College has been secured for the Dental Association of this Province, and that the Dental Board forms the directorate. Thus the profession has entire control of the school. It also empowers the Board to affiliate with any other Institutions for the purpose of securing accommodation, lectures or appliances.

The course of study, rules, etc., are in the hands of the Dental Board.

Your Committee thought that thus the College would be more directly under the control of the Dental Association than if many specifications were set forth in the act.

It will be noticed that the College has no degree-conferring powers, but must secure the same from some University or College. This power rests in either the Dalhousie University or the Halifax Medical College, which is manifestly better than the establishment of a Dental College Degree.

The Halifax Medical College has the following reference to our work.

"Under the new Dental Act arrangements are being made for the establishment of a Dental School in Halifax in connection with the Halifax Medical College and the Dalhousie University. Lectures, demonstrations and clinics will be provided. A Dental laboratory and infirmary will be equipped with all modern appliances, and students will be given opportunities equal to those afforded in the best schools.

The proximity of bacteriological, chemical and metalurgical

laboratories to one another and to the anatomy rooms, the hospitals and the dispensary render Halifax a peculiarly favorable centre for the study of dentistry in all its branches.”

It now remains for the Dental Association to instruct the Dental Board respecting the establishment of a “Maritime Dental College” in Halifax. In addition to the above, we beg to report that the Halifax Medical College and Dalhousie University are still ready to co-operate in every way as set forth in a previous report.

Legislation was enacted which causes this Association to recognize the certificate of the Dominion Dental Council of Canada, but still preserves the rights and privileges of the Provincial Dental Board.

Your Committee was instructed to secure the repeal of the old standard of Matriculation. It was thought unwise to be continually waiting upon the Government for changes in the curriculum.

It is quite harmless as it is, but we recommend that at the earliest advisable moment it be stricken off our By-laws.

Instructions were given to obtain legislation requiring attendance of students at four winter College terms of at least seven months each, or three winter College terms of at least thirty-two weeks each, actual teaching.

Upon consideration it was not deemed wise to attempt to secure such an amendment at the present time.

This matter will come up for regulation with more force after the establishment of the Dental College.

We beg to state with much gratification that the attitude of the legislature at present is favorable to proper regulation of the practice of dentistry and protection of the people. We believe the era of special private legislation for Matriculation or Registration has passed.

Your Committee would present the following recommendations for your consideration.

1. That the Dental Board be empowered to establish the “Maritime Dental College” in the City of Halifax with power to arrange with Dalhousie University and the Halifax Medical College for lectures, clinics, etc., as per outline previously submitted.

2. That this Board set apart a sum not exceeding \$400.00 toward the equipment of a suitable Infirmary and Laboratory.

3. That the College course consist of four winter terms of at least seven months each.

4. That the Board be empowered to establish a curriculum of study, appoint a faculty of teachers and lecturers and demonstrators as the needs of the College may indicate, and make all other arrangements necessary for the equipment and conduct of the school.

That the Dental Association of New Brunswick and Prince Edward Island be made aware of the plans and purposes of this Association respecting the “Maritime Dental College”, and that they be asked to co-operate in making it a successful institution of



learning for Eastern Canada that shall be equal to the best.

Respectfully submitted,

Frank K. Woodbury, Chairman  
Wm. H.H. Beckwith, Committee  
Geo. K. Thomson, Committee  
Halifax, N.S., August 8th, 1907. °

Following this enabling Act to establish a dental school, the Nova Scotia Dental Board did not waste unnecessary time and entered into a fruitful dialogue with Dalhousie. "On April 14th, 1908 at the request of the N.S. Dental Board, the Senate appointed a committee to confer with a committee of the Board concerning the establishment of a Faculty of Dentistry in the University and its relation to the proposed Maritime Dental College."7 The agreement was reached at a conference held May 5-6, 1908, between committees representing Dalhousie and the Dental Board of Nova Scotia:

#### AGREEMENT WITH UNIVERSITY

At Conferences held May 5th and 6th between Committees representing Dalhousie University and the Dental Board of Nova Scotia it was agreed to recommend to the University and the Dental Board that the relation of the proposed Dental College to the University be as set forth below. There were present at the meetings, Professors MacKay, W. Murray, and Dr. Lindsay representing the University and Drs. H. Woodbury, F. Woodbury, Ryan, Thomson, and Fluck representing the Dental Board...

The Final report "was approved by the Senate May 11th, and recommendation to the Governors for their adoption. The Governors approved of the recommendations on May 18th. A copy of the report has been given to Dr. Frank Woodbury..."9 Finally, in July 1908, the NSDA Committee on Education, then chaired by Dr. Hibbert Woodbury, was able to report to the Provincial Dental Board the long-awaited news:

Mr. President and Gentlemen, The Provincial Parliament of Nova Scotia passed an Act during the session of 1906-7 authorizing the establishment of the Maritime Dental College in the City of Halifax.

On August 7th, 1907, the Nova Scotia Dental Association passed resolutions instructing the Dental Board to proceed with the organization of such an Institution.

Through the hearty co-operation of Dalhousie University and the Halifax Medical College, the provisions of the Act have been carried out.

The main features of the College are as follows:

The Dental Infirmary Laboratories and Class Rooms for teaching Dental Subjects are in the Dalhousie University Building,

and will be well equipped. An ample staff of Professors, Lecturers and Demonstrators will be provided for this Department.

Chemistry, Physics and Biology will be taught by the University Professors in the University, and the well equipped laboratories for practical work in these subjects will be open to dental students.

The Halifax Medical College will teach Anatomy, Physiology, Histology, Pathology, Bacteriology and Materia Medica. The laboratories of that Institution will also be used by Dental students. Metallurgy will be taught in the Nova Scotia Technical College. Additional Lectures which need to be added to any of the above subjects will be given by Dental Lecturers.

Dental students will register in the University and Medical College thus securing the privileges of the College life of these institutions.

Dalhousie University has established a Faculty of Dentistry for the purpose of examining candidates, and will confer the University Degree of Doctor of Dental Surgery.

An ample Dental Clinic is available in Halifax. Dental Students will be accorded all necessary privileges in the Victoria General Hospital and other charitable institutions.

The annual fees for registration, tuition, and examinations is one hundred and sixteen dollars (\$116.00).

There is a field for a Dental College in the Maritime Provinces, and with these superior Educational privileges so conveniently grouped, there appears no reason why it should not receive the loyal support of the profession, and we believe it will.

The course consists of four years. The first and second are of 8 months' duration. The third and fourth are of 7 months. The session for 1908-9 opens September 1st, 1908.

The College will be fully up to the standards set by the Dominion Dental Council of Canada.

The establishment of a College in Eastern Canada will give every practitioner a better status in the eyes of the public, and will be a material aid to the securing of better Dental legislation. Each member of Parliament in the three Provinces will receive a copy of the combined Calendar of the Maritime Dental College and the Faculty of Dentistry of the University, as soon as it is off the Press.

Students are a necessity to any educational Institution. We look to the profession to supply them. We shall be glad to put in correspondence, as soon as possible, with any persons intending to study Dentistry, when full information will be given them. "

How intimately was the NSAD involved with the establishment of the Maritime Dental College, one can only peruse its regulations:

#### REGULATIONS OF THE MARITIME DENTAL COLLEGE

Whereas, The Nova Scotia Dental Association has been given

authority to establish the "Maritime Dental College" in the City of Halifax (see an act to amend Chap. 105, Revised Statutes 19, passed April 25th, 1907) and

Whereas, The Nova Scotia Dental Association passed the following resolution of instruction at the annual meeting at Yarmouth, August 9th, 1907 (see 17th Annual Report of Nova Scotia Dental Association).

Resolved, that this Association approve of the recommendations of the Dental Board as contained in the report of the Committee on Education in the report of the Board, and in adopting the report of the Board as a whole, hereby instructs the Board to proceed with the establishment of a Dental College in Halifax as soon as possible, using the funds of Dental Association to an amount not exceeding \$400.00.

Therefore the following Rules and Regulations have been adopted by the Provincial Dental Board for the administration of the affairs of the "Maritime Dental College".

#### Section 1

The Provincial Dental Board shall be the Trustees and Directors of the College, and shall be responsible for the property of the College, purchase supplies and equipment, shall receive all monies for fees from pupils or other source, make all disbursements as herein after provided."

The Maritime Dental College was established in the autumn of 1908 with an initial class of six students and was affiliated with the Halifax Medical College and Dalhousie University. The University was to provide the necessary lecture rooms, clinical and laboratory facilities and to admit dental students to such classes in the Faculty of Arts and Science as the curriculum called for. This was an arrangement based on the one that had been made previously with the Halifax Medical College. A report of the NSDA's Committee on Education outlined briefly the relationship of the Maritime Dental College to other educational institutions and their respective responsibilities for the curriculum:

#### REPORT OF THE COMMITTEE ON EDUCATION

The Maritime Dental College was incorporated by an Act of Provincial Parliament during the session of 1906 and 7, with power to seek affiliation with other Institutions of learning.

It is to be entirely owned and controlled by the Dental Association of Nova Scotia.

The Dental Board of the Province is the Board of Directors. It appoints the College Faculty and manages its affairs.

Following the lead of the best Dental Colleges we seek affiliation with Medical and other Educational Institutions.

Our plan as tentatively outlined by the Committee of the Board is as follows:

1st... Affiliation with the Halifax Medical College and Dalhousie University. The Dental Course for the first two years to be identical with the Medical and the examination to be the same, except Practical Pharmacy in the second year which will be omitted, and practical anatomy which shall cover the head and neck and one other part, the First Year - and a head and neck and another part in the Second Year. In the third year Pathology and Bacteriology, with some selected work in Medicine and Clinical Surgery will be taken. The Third and Fourth Years will be given up largely to Dental Subjects and Infirmary Practice. Dental Technic both Operative and Prosthetic together with lectures will be carried on the First and Second Years as may be needed.

2nd... An arrangement has been arrived at with the Halifax Medical College whereby Dental Students who have taken the Medical Matriculation at the beginning of the course, may indicate their desire to pursue both courses, and if able to pass their examinations before the Medical Faculty receive their Medical degree.

e.g...If at the end of the Second Year a Dental Student indicates his desire to take the Medical as well as the Dental Course, he may be accorded the privilege by consenting to continue his studies for two or three years more as the case may be. Thus the full time will be given for both degrees. This is the arrangement everywhere and many students are taking both courses. This we would consider very desirable. The Faculty of the Halifax Medical College agree to lecture to Dental students free of charge for a period of three years. 25% of the regular fee for classes to be paid to the Medical College Corporation. The balance to be collected and retained by the Dental College to be applied to expense account.

A Committee from the University of Dalhousie has submitted terms for occupancy of apartments in the Dalhousie College building, and for lectures; the University will also erect a Faculty of Dentistry for the purposes of examination for the degree of D.D.S.

#### FINANCIAL

The Dental Association granted the sum of four hundred and fifty dollars (\$450.00) for the equipment of the Laboratory and Infirmary. This will be sufficient for present purposes.

A well equipped registered Dentist must be employed half of each day during the sessions. This expense will be met by the fees of the students and any deficit will be guaranteed by men in the profession who are interested. The Dental teachers will give their time beside.

We are sure of ample material for a Dental Clinic. It is our purpose to approach the Directors of the City Dispensary to place the Dental Department in the hands of the College for Clinical

purposes. The recent dental examination of the public schools reveals a condition of neglect among the poor that can be materially ameliorated by such an arrangement and provide, as well, material for the Infirmary.

The usual fees per annum in Canadian and American Dental Colleges is \$140.00 to \$150.00 exclusive of books and instruments, Dissecting and Chemical laboratory fees, etc.

For the first years, at least, we think it desirable that the entire fee for Dental students be \$100.00, one hundred dollars, per annum including laboratory fees, excepting only the registration fee of \$2.00 each for the University, Medical College and Dental College, \$6.00 in all. This together with the advantages the College will be able to offer, we hope will, attract students.

From exact knowledge we believe the above curriculum to be equal to the best, and is designed to prepare men for the Dominion Dental Council examinations in Canada and we hope to meet the standards for Dentistry set up by the British Medical Council.

It will be a stiff fight to make and maintain a place, but we believe that with the hearty cooperation of the University and Medical College it will not be found impossible.

It is desirable that all arrangements be complete by July 1st so that the curriculum and standards may be submitted to the National Associations of Dental Faculties and Examiners, and placed upon the approval list of Colleges this year.<sup>12</sup>

The whole of Dalhousie University at that time, with the exception of the medical school, was housed in the Forrest Building on Carleton Street. The new dental school was lodged at the southwest end of the main floor of the Forrest Building. A small office room was created for the Dental Secretary, Miss Gladys Littler, and the rest of the space was devoted to the technical dental laboratories. The Dental Clinic contained five or six old-fashioned dental chairs, which had been donated to the school, and was connected to the rest of the area by a rather narrow hall, which also did duty as a waiting room. The Halifax Medical College at the corner of Carleton and College Streets was then located in an old wooden building of two storeys and an attic. The Department of Anatomy, including the dissection room, occupied the whole attic space. Fortunately, the building had a number of dormer windows and the cubicles formed by these provided extra space and better light for the tables used for dissection. The first and second floors provided space for lecture rooms. The basement floor contained a locked room, labelled "Medical Library," that had in earlier times probably served as a coal cellar. Dr. J. Stanley Bagnall once remarked that he never saw this room opened during his two years of classes in that building.<sup>13</sup>

The first meeting of the newly appointed faculty of the Maritime Dental College was on June 12, 1908, in the Senate room of Dalhousie University. The recorded Minutes<sup>14</sup> of this meeting start as follows:

*Halvorsie Murray*  
June 12<sup>th</sup> 1908.

*In response to a summons issued by  
D. W. C. Murray, Secy of the Senate, the  
newly appointed Dental Faculty of the  
University held its first meeting in the  
Senate room at 8 P.M.*

**The first Minutes of the Faculty**

**TEACHING STAFF.**

**Faculty of the Maritime Dental College**

- FRANK WOODBURY, D. D. S. (Penn. Col. Den. Surg.) 1872  
*Dean and Professor of Orthodontia.*
- F. W. RYAN, D. D. S. (Univ. of Mich.) 1885  
*Professor of Operative Dentistry.*
- A. W. COGSWELL, M. D., C. M. (Dal.), D. D. S. (Univ. of Penn.) 1888  
*Professor of Materia Medica and Oral Therapeutics.*
- F. W. STEVENS, D. D. S. (Univ. of Penn.) 1890  
*Professor of History, Ethics and Jurisprudence.*
- G. K. THOMSON, D. D. S. (Phil. Den. Col.) 1892  
*Recording Secretary and Professor of Crown and Bridge Work,  
Ceramics and Hygiene.*
- S. G. RITCHIE, B. A. (U. N. B.), D. M. D. (Tufts Den. Col.) 1900  
*Professor of Dental Pathology, Comparative Dental Anatomy  
and Histology.*
- Professor of Prosthetic Dentistry.*
- F. V. WOODBURY, M. D., C. M. (Dal.), L. R. C. S. and L. R. C. P.  
(Edin.), L. F. P. S. (Glasgow.)  
*Professor of General and Oral Surgery and Anaesthetics.*
- H. WOODBURY, D. D. S. (Phil. Den. Col.) 1897  
*Lecturer on Prosthetic Dentistry.*
- G. H. FLUCK, D. D. S. (Phil. Den. Col.) 1894  
*Lecturer on Prosthetic Dentistry.*
- W. H. H. BECKWITH, D. D. S. (Univ. of Penn.) 1901  
*Lecturer on Operative Dentistry.*
- W. C. OXNER, D. D. S. (Balt. Col. Den. Surg.) 1902  
*Lecturer on Crown and Bridge Work, and Ceramics.*
- R. E. MACDONALD, D. D. S. (Phil. Den. Col.) 1904  
*Lecturer on Operative Dentistry.*
- H. P. TEMPLE, D. D. S. (Phil. Den. Col.) 1907  
*Lecturer on Operative Dentistry.*
- W. W. WOODBURY, B. Sc. (Dal.), D. D. S. (Phil. Den. Col.) 1908  
*Lecturer on Prosthetic Dentistry and General Demonstrator.*

**THE HALIFAX MEDICAL COLLEGE.**

- A. W. H. LINDSAY, B. A., M. D., C. M. (Dal.), M. B., C. M. (Edin.)  
*Professor of Anatomy.*
- LOUIS M. SILVER, B. A. (Vind.) M. B., C. M. (Edin.)  
*Professor of Physiology.*
- L. M. MURRAY, M. D., C. M. (McGill.)  
*Professor of Pathology and Bacteriology.*
- K. A. MCKENZIE, M. D., C. M. (Dal.)  
*Professor of Materia Medica.*
- J. R. CORSTON, M. D., C. M. (Dal.)  
*Demonstrator of Histology.*
- W. B. ALMON, M. D., C. M. (Dal.)  
*Lecturer and Demonstrator of Anatomy.*
- A. R. CUNNINGHAM, M. D., C. M. (Dal.)  
*Lecturer on Pathology and Bacteriology.*
- M. A. MACAULAY, M. D., C. M. (Dal.)  
*Demonstrator of Anatomy.*
- V. N. MACKAY, M. D., C. M. (Dal.)  
*Demonstrator of Histology.*

*The 1908-09 teaching staff of the Maritime Dental College<sup>15</sup>*

**\*SPECIAL LECTURERS.**

J. M. MAGEE, D. D. S. ....	St. John, N. B.
A. F. MCAVENNEY, D. D. S. ....	St. John, N. B.
C. A. MURRAY, D. D. S. ....	Moncton, N. B.
F. W. BARBOUR, D. D. S. ....	Fredericton, N. B.
F. A. GODSOE, D. D. S. ....	St. John, N. B.
H. C. WETMORE, D. D. S. ....	St. John, N. B.
E. R. K. HART .....	Sackville, N. B.
J. W. MOORE, D. D. S. ....	St. Stephen, N. B.
C. F. GORHAM, D. D. S. ....	St. John, N. B.
J. S. BAGNELL, D. D. S. ....	Charlottetown, P. E. I.
J. H. AYERS, D. D. S. ....	Charlottetown, P. E. I.
F. E. SMALLWOOD, D. D. S. ....	Charlottetown, P. E. I.
M. K. LANGILLE, D. D. S. ....	Truro, N. S.
M. P. HARRINGTON, D. D. S. ....	Bridgewater N. S.
E. A. RANDALL, D. D. S. ....	Truro, N. S.
H. G. DUNBAR, D. D. S. ....	New Glasgow, N. S.
H. W. BLACK, D. D. S. ....	Sydney, C. B.
C. S. MCARTHUR, D. D. S. ....	Truro, N. S.
R. J. MCMEEKIN, D. D. S. ....	Bridgewater, N. S.
F. S. ANDERSON, D. D. S. ....	Bridgetown, N. S.
A. F. HOGAN, D. D. S. ....	Weymouth, N. S.
V. F. CUNNINGHAM, D. D. S. ....	Sydney, C. B.
W. S. GOODWIN, D. D. S. ....	Harbor Grace, Nfld.

\* The Special Lectures will be announced from time to time during the Session, as may be arranged.

*The 1908-09 special lecturers of the Maritime Dental College*

Four weeks later, on July 9, 1908, Dr. Frank Woodbury presented the first annual report of the dean of the dental school to NSDA's annual meeting. This started a tradition whereby such an annual report was presented at every future annual meeting of the Association. That first report was necessarily brief, as classes had not yet begun; later annual reports to the NSDA became much more detailed, as is apparent from the 1911 report:

GENTLEMEN: It must be a matter of pride to you to be able to point to an institution, which in three short years, indeed before a class has been graduated, has come to be recognized among the better class and worthy dental colleges.

Many of our medical men, as our Calendar has come into their hands, have expressed surprise at the course of dental education which embraces so much and is so well calculated to make broad-minded, well-trained men. This is not strange, since in our part of the country, they had not come in direct touch with any institution of learning of this kind. The College has thus been a very strong factor in raising our profession in the eyes of the medical men.

Every dentist in the province should see to it that our Calendar is well distributed to medical men, to the principals of our schools and to our young people who are likely to study our profession. It is to the interest of every dentist in the Maritime Provinces to speak a good word for our own institution, and to point out the high standards that the Canadian colleges have set. This is your College. There is but one other owned and conducted by the dental profession, viz., the Royal College of Dental Surgeons of Ontario. Anyone there will tell you that its presence in the province and the fact that every man has an interest in it has been a lever exerting a

constant pressure upwards until Ontario stands at the very top in dental surgery to-day.

We owe it to our young people to establish and maintain a College in Eastern Canada. We are all probably graduates of foreign colleges, but that is not our fault. There was no other course for us to pursue, but when we as Canadians see our ability to conduct an institution of the calibre of the M.D.C. and find a suitable building and a large part of the materials ready made to our hand, it surely is only a question of going about it. The rest of Canada expects us to go forward and care for the dental education of the Maritime Provinces. The Royal College of Toronto has been circularizing the high schools of the Dominion for probable students, but they notified us that they expected the M.D.C. to care for the East. We will surely accept the challenge.

Dalhousie University and the Halifax Medical College maintained their interest during the year. The Halifax Medical College has now become an integral part of the University, and is now known as the Faculty of Medicine of Dalhousie University. The same arrangements respecting laboratory and lecture privileges will be continued as before. This will be a distinct advantage to our own institution and draw us still more closely together. The new legislation passed last winter has placed our educational work on a practical basis. It is not the time to discuss our dental law in a general way, but as it relates to the work of the College. The dental profession of Nova Scotia finds itself in a most desirable position. The Association and Board have control of all registration regulation and educational requirements for those who hereafter desire to practice in Nova Scotia.

#### MATRICULATION

A new standard of matriculation has been formulated and approved by the Governor and Council which is identical with the medical preliminary requirements. It is accepted by the University for matriculation and has been formally endorsed by the Dominion Dental Council, so that henceforth the matriculants of the Provincial Dental Board will suffer no handicap.

#### PROFESSIONAL EXAMINATIONS

The course of study in the Maritime Dental College coincides exactly with the requirements of the Board under the new law. The Dental Board has appointed the Faculty of Dentistry of Dalhousie as examiners of candidates for registration to practice. These examinations take place at the same time as those of the Medical Board, and the Medical and Dental Faculties of the University, viz. in the spring and autumn. It should be noted in this connection that under our Act graduates of the M.D.C. are not required to take an extra professional examination to become registered in Nova Scotia.



#### APARTMENTS

Our apartments in the University building will accommodate us for the present. A large room was last year added to our suite. The new Science building will be proceeded with at once. After its completion there will be no lack of room in the present building for the Dental College.

#### CURRICULUM

The curriculum of study finds few critics except among those students who desire to win a degree without study. We do not intend to present any students to the University for examination who have not earned the right by careful application to their work. The course is under constant consideration by the Faculty in order that from the abundance of material at our hand in the affiliated institutions we may select that which will make well balanced, educated dental surgeons.

#### INFIRMARY

Many have been apprehensive, fearing that our Infirmary would not be equal to the demand of our student body. No one need worry. Last year we could not accommodate the patients who came to us. We have recently completed an arrangement with the naval authorities at Ottawa whereby the sailors and recruits for the station in Halifax will receive their dental service from the Dental College. This is a very desirable clientelle from many standpoints and will supply a large number of patients.

#### LABORATORIES

The scientific laboratories and Practical Anatomy rooms of the University are being much improved and important equipment is being added. The Nova Scotia government is about to build a commodious and well equipped Pathological and Bacteriological Laboratory on the grounds of the Victoria General Hospital, which will probably be completed this year. The head of this government department will be professor of those subjects on our staff.

We have arranged for increased accommodation for Prosthetic Laboratories. They are equipped with usual appliances. The crown and bridge and porcelain room contains modern casting machines and the latest type of electric furnace and pyrometer with facilities for electric connection for students' furnaces, etc.

#### DEMONSTRATORS

As may be seen by reference to our Calendar, no Infirmary could be more efficiently manned with demonstrators than ours. The student is under the guidance of experienced men all the time.

## TEACHING STAFF

The professors and lecturers are efficient and painstaking, well equipped for their work and display an interest that spells success.

The profession has large powers to give to us a good number of students. Let it be known that only graduates of Canadian colleges can take the D.D.C. examinations.

I take it that you are not conducting this College to overcrowd Nova Scotia, but to provide means whereby Maritime men may have a fair chance to go into Western Canada and take their places in the towns that are springing up over that vast territory. The M.D.C. can prepare these men. Send them to us.

## FINANCIAL

The expenses of the College were met last year by the income and grant from this Association. As each year is added to the course the expenses increase. The coming year will necessitate larger expenditure in equipment, demonstrating staff, clerical assistance, etc. It is hoped and believed that fees for tuition together with increased Infirmary income will do much toward meeting the necessary disbursement, but the Board and Dental Faculty expect that this Association, which brought the school into existence, and is financially responsible for it, will generously provide a grant as large as can be made to meet the expenses of the coming year.

In closing allow me to say that we have undertaken great things. Success and permanence are assured if the profession proves loyal to its support. I am speaking, I believe, for the Faculty, who have all made such sacrifice of time and energy, when I say that the service has been rendered cheerfully and heartily, and we will be always glad if anything we may do goes to build up a structure strong and true which will advance the interests of the profession of dentistry in our land.<sup>16</sup>

THE 1908-09 CURRICULUM AND THE FACULTY  
OF THE MARITIME DENTAL COLLEGE

The aim of the Maritime Dental College, as stated in its Calendar, was to offer a study of dentistry in harmony with the best standards, and one that would deserve the loyal support of the dental profession in the Maritime provinces. Several Dalhousie University regulations applied to the dental students at the Maritime Dental College. The academic year consisted of eight months for each of the first and second years, and of seven months for the third and fourth years. Candidates had to register both at the Maritime Dental College and at Dalhousie University. To be admitted to the classes of the dental curriculum, they must have presented a certificate of passing either the Junior Matriculation Examination with Latin as one of the languages selected, or the Preliminary Examination of the Provincial Dental

Board of Nova Scotia, or any of the Preliminary Examinations recognized by the Dominion Dental Council of Canada. Also, candidates must have been at least sixteen years of age before passing any of the above mentioned examinations.

The first dental curriculum, in 1908, was slightly different from that of today. Matriculation into dentistry was the standard university matriculation of the day for Arts and Science. This meant that first-year courses included general biology, physics and general chemistry, all of which were taken with the rest of the university students in the Forrest Building. The experiments for the laboratory component of the courses were selected and designed not only to acquaint the students with the methods and instruments which were commonly used but also to help them grasp that part of the subject that was taught in the lectures.

Chemistry laboratory students were allowed the use of all the more inexpensive reagents, but the Calendar warned dental students that they had to provide themselves with the more expensive reagents, such as alcohol and ether, and they were charged with the value of any apparatus they broke or injured.<sup>17</sup> Physiology, histology and biochemistry were not given until later, when the medical school received a staff addition. Laboratory work in pathology and bacteriology included classes of practical instruction in morbid anatomy, pathological histology and bacteriology. The first part of the session was occupied by preparation of "morbid structures". In the practical physiology laboratory course, all students were expected to make and preserve for themselves preparations of most of the tissues and organs of the body.

Metallurgy—a very important subject for dental students in those days—was taught at the Nova Scotia Technical College. However, the teaching of dental subjects remained the obligation of dentists themselves. An interesting category of special lecturers was created, which consisted of prominent non-Haligonians who were asked to give special lectures from time to time during the regular term session. Since the newly formed dental school was designed to serve the Maritime area, indeed to serve eventually the whole Atlantic region, those special lecturers were meant to be invited from Newfoundland, New Brunswick, Prince Edward Island, and Nova Scotia; that is, outside the Halifax city metro area.

The course of anatomy, given by the Halifax Medical College, was divided into a junior and senior programme. The practical anatomy course dealt mainly with dissections. Each dental student was under the direct supervision of the Professor of Anatomy. The professor was to be assisted by the demonstrators, one or other of whom, in addition to the professor, was to be present every day so that each student could be frequently examined and assisted during the progress of his dissections. Considering that six students were registered for the first year, one cannot but envy this student-instructor ratio; it is difficult to envisage how this ratio could be restored today or in the future.

The dental Calendar assured the students that "A large supply of bones is kept on hand, and these are freely supplied to students, both in the Practical Anatomy room and for study at home."<sup>18</sup> However, they were warned that "in order to secure reasonable care of these preparations, all students are required to deposit two dollars (\$2.00), on entering college, but the fee will be refunded at the end of the session, on the return, in good order, of all specimens which may have been taken out."<sup>19</sup>

Dental subjects were taught in the Maritime Dental College. They were operative dentistry, orthodontia (this is how it was spelled), prosthetic dentistry, crown and bridge work and ceramics and hygiene, oral pathology and therapeutics, dental histology with comparative anatomy, history, dental ethics, jurisprudence and economics, and finally general and oral surgery and anaesthetics. Operative dentistry, taught by Drs. F.W. Ryan, W.H.H. Beckwith, and R.E. MacDonald, was a four-year course which included the teaching of dental anatomy and the relations of different dental tissues, through the process involved in operative technics.

Orthodontics, taught by Dr. W.W. Woodbury, was presented as lectures and clinical demonstrations during the third and fourth years. The course assured the students that the sequence of instruction proceeded from "a discussion of normal conditions to the various derangements of alignment of the teeth, the abnormalities of the dental arch, and consequent deformities of the face, and interference with mastication. The methods and appliances adopted to correct or ameliorate these conditions will be practically applied."<sup>20</sup> It is remarkable that orthodontics was given so much emphasis in an undergraduate curriculum at the beginning of this century. Many North American dental undergraduates would be thankful to receive as much instruction in orthodontics during their undergraduate days in the late 1980s.

The prosthetic dentistry course, taught by Drs. H. Woodbury, G.H. Fluck and R.H. Woodbury, was spread out, as was operative dentistry, over the four-year curriculum. In the third year, metallurgy lectures and demonstrations were given by Principal F. H. Sexton of the Nova Scotia Technical College in connection with the teachers of prosthetic dentistry. Students were reassured that ample dental infirmary practice would be provided and that, when deemed ready, they would be asked to construct dental appliances of various kinds for the patients.

It is interesting to note that crown and bridge work, ceramics and hygiene, taught by Drs. George K. Thomson and Warren C. Oxner, were grouped together as one subject. This course started in third year and continued throughout the fourth. Students received instruction on how to prepare clinically, and construct in the laboratory, gold and porcelain crowns, bridges, inlays and onlays. "Students who may desire to use their own electric furnace will be supplied with electric connections,"<sup>21</sup> stated the school calendar. It must be remembered that the students were trained to be able to and were expected to do all their fixed and removable prosthodontic

work. To write a laboratory work authorization form and pass the work to a dental technician for execution, as is the current practice, was an unknown luxury at the Maritime Dental College.

A series of lectures in oral hygiene was given in the final year. The description read that the subject "will receive the consideration which its great importance demands. The student will be taught the most approved manipulation and therapeutic methods for effecting as far as may be a condition of immunity in the oral tissues."<sup>22</sup> Shades of preventive dentistry in the 1980s at the beginning of the century! Really, is there nothing new under the sun? The Maritime Dental College curriculum would well serve today's needs—80 years later.

Why, one may ask, was oral hygiene placed within and included as part of the crown and bridge course? Today, of course, we may only surmise that Hunter's attack on the dental profession had something to do with it. Sir William Hunter, a physician from Great Britain, was made famous by his attack against the practices of North American dentistry. As early as 1900, he came to the conclusion that oral sepsis was attributable to faulty dental procedures and fixed prostheses but his conclusions fell on deaf ears of physicians and dentists alike. The same fate befell Willoughby D. Miller's article on "The Human Mouth as a Focus of Infection," which actually preceded Hunter's paper dealing with the same topic. Miller, an American dentist who worked in Berlin, was basically a scientist who may be credited with helping to establish dentistry along scientific, rather than mechanical lines. However, his "focus of infection" theory was not universally accepted by the health professions. Not until Hunter, in 1911, read a paper on "The Role of Sepsis and of Antisepsis in Medicine" at McGill University, where he referred to the ingeniously constructed dental bridges as "mausoleums of gold over a mass of sepsis," did the health professions finally take notice. Since no amount of argument could refute the facts underlying Hunter's thesis, from absolute disinterest the physicians rapidly went to the opposite extreme. Now dentistry was to be blamed for almost every disease physicians could not readily diagnose; indiscriminate mass extractions became the order of the day.

The "fathers of the dental curriculum" at the Maritime Dental College are to be congratulated for their far-sighted understanding of the importance of preventive dentistry and of the interrelationship between the mechanical and biological sciences in the oral milieu.

Oral pathology and therapeutics (Dr. A.W. Cogswell), dental histology and comparative anatomy (Dr. S.G. Ritchie), general and oral surgery and anaesthetics and, finally, dental history, dental ethics, jurisprudence and economics (Dr. Frank Woodbury) completed the dental curriculum.

The Victoria General Hospital was to provide an extremely useful second clinic for the dental students. The principles of sterilization were carefully taught as part of the course of oral pathology and therapeutics. As a matter of interest, one may comment that emergencies and modes of

resuscitation did receive a thorough consideration in the Maritime Dental College's programme. It was not until the 1980s that cardiopulmonary resuscitation techniques were reintroduced in the curriculum at Dalhousie's Faculty of Dentistry.

Another course offered by the Maritime Dental College was dental history. It is again being offered by some progressive North American dental schools as an essential part of an important wider area of professionalism and is being revived at Dalhousie. At the Maritime Dental College, this programme was offered as part of a course on "History, Dental Ethics, Jurisprudence and Economics" in which the obligations of professional men to their patients, other practitioners, and the public were emphasized.

Candidates for the degree in dental surgery had to pass four professional examinations, one at the end of each year of the curriculum. By a resolution of the Provincial Dental Board of Nova Scotia, the dental school's faculty constituted the Provincial Professional Examiners in Dentistry for admission to registration as dental practitioners in Nova Scotia. Therefore, successful students, upon receiving the degree of Doctor of Dental Surgery and conforming to the regulations of the Dental Board, were qualified without further examination to practice dentistry in Nova Scotia. However, since each province had its own regulations for admission to practice, students were warned that their dental degree would not necessarily qualify them for admission to practice in other provinces. This situation prevails even today.

#### THE NOVA SCOTIA DENTAL ASSOCIATION AND THE DAILY ACTIVITIES AT THE MARITIME DENTAL COLLEGE

Although a close relationship had been established between the new dental school, the Halifax Medical College and Dalhousie University, the ownership of the Maritime Dental College remained firmly in the hands of the Nova Scotia Dental Association. Initially, the NSDA made a grant to the College, and also each member of the Nova Scotia Dental Board contributed \$50, a considerable amount of money for that period. In each succeeding year, the NSDA tried to donate as much financial support to the Maritime Dental College as was needed. Since at its founding, the Maritime Dental College was owned by the Nova Scotia Dental Association, it was up to the dental profession to arrange the faculty and provide adequate teaching. The Nova Scotia Provincial Dental Board acted as the College's trustees and directors.

The professors and lecturers in Dental subjects gave much time from their office delivering their lectures. The technic work was carried on systematically....As far as the Educational interests of our students are concerned all doubt has vanished respecting the

quality of the teaching and the advisability of the movements, and the ability of the Maritime Provinces to maintain an Institution of learning for the education of dentistry....<sup>23</sup>

The recorded Minutes of the Faculty of the Maritime Dental College even specified that the teachers who were appointed to the school would not be paid for their services.<sup>24</sup>

This unselfish help given to dental education was acknowledged as late as November 1, 1971, during a presentation to a Dental Task Force. There it was mentioned that from the beginning, the financial contribution made to the Faculty from any source was minimal. Had it not been for the contribution of time and effort of the members of the NSDA, dental education in this area would not have been possible at that time. The public was to benefit from the activities of the Maritime Dental College:

THE MARITIME DENTAL COLLEGE  
HALIFAX, N.S.

Dear Doctor:

The Dental Infirmary of the Maritime Dental College will be open for patients on Monday, Wednesday and Friday, from 10 a.m. to 1 p.m. and from 2:30 to 4:30 p.m., beginning on October 2nd. The students will be under the direct and constant supervision of the demonstrators, who are qualified practitioners, and the greatest care will be exercised to have all operations performed in a proper manner.

There are many persons who cannot afford to pay fees to Dental Practitioners, but can pay a small amount which will partly cover expenses for materials, etc. It is these the College is desirous to serve.

The Infirmary is supplied with all necessary instruments and appliances to conduct any operation or provide any artificial denture.

The College would deem it a favour if you would direct suitable persons, men and women or children in need of Dental services to the College Infirmary.

Enclosed please find cards of introduction which we ask you to sign and send by the patients.

The Infirmary is in Dalhousie Building.

We are sure the above will claim your attention.

Yours truly,

The Maritime Dental College

Dalhousie University Building  
September 26th, 1911<sup>25</sup>

The minutes of the faculty meetings of the Maritime Dental College show the dedication of the men who devoted so much of their time to the cause of dental education in Atlantic Canada. A time-capsule from another era, they capture in surprising detail for future dental alumni of Dalhousie University to study and wonder about the humble beginnings of their Alma Mater, the decisions, both important and minor, that were made by the faculty in the early years of the dental school.

...The Dean reported that the Maritime Dental College would be recognized by the Dominion Dental Council and its graduates admitted to the examination of that body.

...Discussion of a "Time Table" resulted in a decision to give lectures and clinical demonstrations from 2-4 o'clock, Prosthetic on Mondays and Operative on Wednesdays. ... Committee has recommended to obtain a Columbia College Chair with rotating lever attached to it.... (August 21, 1908)

...The Dean reported that he had purchased vulcanizer and other necessary apparatus... that a Weber porcelain spittoon could be obtained from the Maritime Supply Co. Ltd. for \$20 or \$25. ... The Dean read a letter received from the class requesting an exemption from Medical Practical Physics.... (October 20, 1908)

...after an exhaustive discussion of the curriculum, it was moved, seconded and passed that Materia Medica and Crown and Bridge be placed in the Third Year instead of the Second.... (May 10, 1909)

...The Dean reported that one chair had been received, and that another could be obtained for \$35. He was instructed to order it... (September 1, 1909)

...Dean read letter received by him signed by students of both classes. This letter was given full consideration and the Dean was instructed to inform the students that no change would be made in the course of instruction in Anatomy, deeming it exceedingly important, that this subject should be studied throughout the year.... (November 25, 1909)

...Letter from Dr. Cowan stating that our Matriculation standard would be recognized by the Dominion Dental Council was read.... (December 20, 1910)

...Meeting held in H. Woodbury's office - Dean in the Chair. The matter of repairing teeth of recruits of HMCS Niobe was discussed. It was explained that the Government had appointed (unknown to them) Drs. Woodbury Bros. to do this work.... in any case they thought it desirable that it should be done by the Dental College....



The following scale of fees was agreed upon for this:

plastic fillings	\$1.00 each
extractions	\$0.25 each
removing pulp & treatment (March 13, 1911)	\$1.00 each

...It was moved, seconded and passed that a girl be employed to act as Sec'y in the College.(May 2, 1911)

...The matter of students smoking, chewing and spitting in College premises was discussed and it was agreed that every member of the faculty should use means to prevent it.... (Aug. 24, 1911)

...On motion Miss Littler was appointed office Sec'y.... The following fees were adopted:

amalgam, per capsule	\$0.25
cement fillings	\$0.25
gutta percha fillings	\$0.25
silicate fillings	\$0.50 up
gold fillings	\$1.00 up
porcelain inlays	\$1.00 up
porcelain crown, plain	\$2.00 up
bridge, per tooth	\$3.00 up
extraction under gas	\$1.00
full denture, plain	\$5.00
,gum	\$6.00
partial denture	\$3.00 to \$5.00
clasps each	\$0.75
bar lower	\$6.00 up
aluminum vulc. attach	\$8.00 up
silver	\$8.00 up
gold	\$10.00 up

It was moved, seconded and passed that the above list be kept in the infirmary office in charge of Miss Littler....(Sep. 26, 1911)

...Letter from Board of Governors of Dalhousie University, appointing Frank Woodbury a member of Senate of the University.... Dean reported total income \$1,788. Estimated expenses \$1,600.40....The Committee on repairs was instructed to have weather strips put on windows....(Nov. 21, 1911)

...The matter of students performing operations in infirmary on other than infirmary days without making records was discussed and the Dean was requested to post a notice....The matter of becoming a dept. of Dalhousie University was discussed....(Jan. 8, 1912)

...On the Dean's suggestion it was decided to pay the examiners the same fee for examining as for demonstrating, providing there were funds available for the purpose.... (Apr.2, 1912)

...Letter from President Mackenzie re the Dental College becoming a department of Dalhousie was read and after a full discussion the following agreements were passed and signed (see agreements on file). It was also resolved that the body recommended to the Dental Board the advisability of becoming a dept. of Dalhousie University if satisfactory arrangements can be made, and that the teaching staff will continue their services as at present under the existing arrangements. (Feb. 13, 1912)<sup>26</sup>

The last recorded Faculty meeting of the Maritime Dental College took place on July 8, 1912, at 277 Tower Road. "It was the foresight and dedication of a few in the profession that decreed at that early time that Dalhousie University would be the centre of Dental Education in the Atlantic region. The facilities were poor, the budget was nil, and still the Faculty carried on and supplied the majority of dental graduates for the Atlantic region...."<sup>27</sup> However, it was remarkable that in such a short time the Maritime Dental College became established as a leader among the dental schools in North America. This was commented on, in 1909, at the 19th Annual Meeting of the Dental Association of the Province of Nova Scotia in a short report<sup>28</sup> given by Dean F. Woodbury:

#### THE MARITIME DENTAL COLLEGE

The Educational Institutions of a country are the gauge of its intellectual strength.

The Technical Education of a country, everything else being equal, illustrates the interest in, and the standards set for the profession it represents.

Many have thought it a bold conception indeed to suppose that a Dental College could be established in the Maritime Provinces which would in any sense measure up to the standards set by the Dominion Dental Council or the National Association of Dental Faculties or Examiners, or be a worthy sister of the better class of such Institutions in the Dominion or United States.

1st. That the Capital could not be found to erect and equip a Dental College in Eastern Canada.

2nd. That it would be difficult to find teachers who could take up the necessary subjects and lecture upon them, either with credit to themselves or profit to those who might listen to them.

3rd. That a constituency is not available for a proper Prosthetic and Operative Infirmary Clinic.

4th. That sufficient students cannot be found to make the establishment of such an Institution worthwhile or possible.

It is a happy thought that these statements are not made in any captious spirit, but as legitimate and honest doubts of men who want to see our profession in the Maritime Provinces stand at the first rank. May I discuss these statements for a few moments in order that all doubt may be dispelled.

1st. The building for housing a Dental College. This was the insurmountable difficulty, which rendered the project impossible; many thousands of dollars would have to be buried in stone and brick to erect a suitable building. In 1904 the Halifax Medical College made some proposal to the Dental Board respecting the establishment of a Dental Department, but the question of suitable apartments for Dental Infirmary and laboratories was still standing in the way. At this juncture Dalhousie University came forward and offered space in the University building for a Dental College, with the promise that as the Institution grows more space will be allotted. Indeed we are assured that when the new Science and Arts Building is completed the Dental College will be given all the room needed in the south wing of the present building facing on Morris Street with separate entrance. This presents an imposing appearance and supplies a home for the Dental College. That is all that could be desired. Thus the question of erecting a building is eliminated from the problem.

2nd. The problem of teaching staff. Upon investigation it was found that the Senate of the University and the professors of the Halifax Medical College were ready to co-operate. Both institutions were willing that Dental students should attend lectures and have the use of all laboratories in the subjects common to Arts, Science, Medicine, and Dentistry, with the privilege of making certain modifications or additions that are desirable for the purpose of our course.

This leaves only the purely dental subjects to be taught by the Dental College, while the whole curriculum is under the control and guidance of the Faculty of the Maritime Dental College.

The experience of the past year has taught us that men were readily found who are abreast of present day dentistry and willing to undertake the duties of lectureships.

While I feel delicate in making a statement in the presence of some of them, you may be assured that the teaching in the Maritime Dental College during the past year has been of a very high order as indicated by the results of the examinations. No one need feel nervous about recommending students to attend on this account. When the test of the Dominion Dental Council Examination is applied it will be found that our boys will give a good account of themselves.

3rd. That an Operative and Prosthetic Clinic is not available. While we have not yet tested this experimentally, yet we are so sure of ample material that the Infirmary is already being fitted up. We have no hesitation in saying that there will be many more patients than our third and fourth year students can possibly care for.

Beside other sources the dental examination of the public schools will provide numerous cases.

4th. That students cannot be found to make it worthwhile. Of course a College without students cannot exist. It is a problem in mathematics and loyalty whether it is to flourish, drag along a miserable existence, or cease to be.

There never was a time when the dental profession offered so many attractions to the Canadian young men. With our great undeveloped West, where towns are springing almost in a night and dentists are among the earlier necessities, what more attractive professional career could be asked for?

The laws of many of the Provinces are such that a four year course is required and in some of the larger Provinces the candidates for registration must have a Canadian degree. The Dominion Dental Council stipulates that a Canadian degree is necessary.

The expense of completing the course in the Maritime Dental College is no greater than that of a foreign college.

We believe there are no dental colleges that are laying better foundations for intelligent practice in the human mouth than the Maritime Dental College. It is first, last and all the time, the object to make dentists not theorists. The first two years are of eight months duration and are given up to a diligent study of foundation work. The latter part of the second and the third and fourth years are almost wholly given up to a discussion of dental subjects with practical work in the laboratory and Infirmary.

I know of no dental college where University life touches the dental students more closely than in the Maritime Dental College.

We believe our college can develop as high a grade of professional men and give them a larger opportunity in our great country than can be secured abroad.

This, gentlemen, is the opportunity of the Maritime Provinces to rise to a great privilege and show loyalty to the east and to their profession.

When one of our great Universities and the Halifax Medical College (which by the way at the present time, stands among the first medical educational institutions in the Empire) will give such concessions and ask us to stand beside them in the conduct of an Institution for higher education of dentists, we feel sure that every man feels the impulse of the loyalty and sacrifice necessary to make the Maritime Dental College, the success of which it is capable.<sup>28</sup>

It was the part-time faculty who were responsible for maintaining the high standard of the teaching programme of the Maritime Dental College. Likewise it was the Nova Scotia Dental Association which was responsible for maintaining the College's financial viability. It was not easy to balance the budget of any dental school, but the Maritime Dental College was able to conduct its business affairs successfully. According to the Faculty Minutes

from April 24, 1911, it closed the academic year practically free from debt. The Maritime Dental College was already "recognized as reputable and is taking its place among the Institutions worthy of a continued existence. It is on the list of Colleges recognized by the Dominion Dental Council."<sup>29</sup> In 1910-11, the only changes in the Calendar of the Maritime Dental College's academic staff were the addition of Dr. J.H.H. Rice as a Lecturer in Operative Dentistry and the appointment of Dr. F. Wright from New Glasgow as a Special Lecturer.

The last report from the Maritime Dental College was given at the 1912 Annual Meeting of the NSDA. Also, at this meeting the first report was presented by Dean F. Woodbury of the newly established Faculty of Dentistry of Dalhousie University. Both reports are enclosed to show the transition of the Maritime Dental College to the Faculty of Dentistry.

REPORT OF DEAN OF MARITIME DENTAL COLLEGE<sup>30</sup>

Session 1911-1912

Number of students	17
1st Year	8
2nd Year	4
3rd Year	1
4th Year	4

Mr. J. Stanley Bagnall won the prize for the best general average in the first year.

The Curriculum was carried out as advertised in the Calendar. The Financial Statement of the Dean and the Treasurer show clearly the state of the finances of the College.

The result of the four years' work has shown that the combination of educational interests grouped at Dalhousie, renders it possible to conduct a very efficient course in Dentistry. Of course this has meant much self-sacrifice and loyalty to Dental Education on the part of those who are engaged in the work, but it has meant the establishment in the Maritime Provinces of an educational institution of which this Association may well be proud.

From the first we have looked forward to integral union with Dalhousie University. To this end the Association in annual convention in 1909 at Sydney, passed the following resolution:

"Whereas, if at any time it is feasible that the Maritime Dental College should become a department of Dalhousie University under conditions which will conserve the right of the Dental Association to have proper oversight of the course of instruction.

*"Therefore Resolved*, that the Dental Board is hereby instructed to enter into such negotiations with the assurance that the Dental Association will give all possible support to such a movement."

Carried unanimously.

After it had been demonstrated that a superior course could be sustained in Halifax, negotiations were entered into which have resulted in the Maritime Dental College becoming a teaching department of the University under the name of "The Faculty of Dentistry of Dalhousie University."

The following resolution of the Dental Board authorized the transfer.

Resolution of the Dental Board, passed March 25th, 1912:

*"Whereas*, negotiations have been conducted between the Board of Governors of Dalhousie University and the Executive Committee of this Board with a view to the transfer of the Maritime Dental College by which it will become a teaching Faculty of the University,

*"And Whereas*, the proposals for transfer have been agreed to by the Board of Governors of Dalhousie University,

*"Therefore Resolved*, that the Provincial Dental Board of Nova Scotia hereby endorses and ratifies the plan as set forth in the 'Proposals' submitted, and hereby instructs the Executive Committee to consummate the transfer."

The main features of the agreement are as follows:

1. The Faculty and Demonstrators agree to continue teaching for a period of four years.

2. The apparatus and appliances now in use in the Maritime Dental College shall be at the service of the University with the provision that in case the Faculty of Dentistry should cease to exist, any such appliances that may be of value shall be returned to the Dental Board. (The inventory of materials and appliances amounts to \$750.00.)

3. The Dental Board appoints the examining Faculty of Dalhousie as professional examiners for Registration, together with a registered Dentist, as associate examiner in each final subject. In return, the University accepts the men nominated by the Board as University Examiners for the degree of D.D.S.

As the Dental School grows, more equipment will be needed. This will entail much expense. The Board feels that while the management of the College is in some sense transferred to the University yet the profession in Nova Scotia must continue to feel the keenest interest in its welfare and contribute to its success. The Board, therefore, passed a resolution asking this Association to make a grant for five years to be expended in equipment, such equipment to revert to the Association if the Faculty of Dentistry ceases to exist. It is to be understood that this gift forms no part of the agreement with the University.

In accordance with this arrangement the Board of Governors of Dalhousie has established the Faculty of Dentistry, and appointed a teaching staff; issued a Calendar and proposed to conduct a Dental School. All rights and privileges of present students are conserved and the work will go on the same as under the management of the

Dental Board. We are sure that you will rejoice in this happy result of our effort to establish a permanent school of Dentistry in connection with Dalhousie University.

RECOMMENDATIONS

1. The Nova Scotia Dental Association is hereby asked to endorse the arrangement of the Provincial Dental Board with Dalhousie University whereby the Maritime Dental College has become "The Faculty of Dentistry of Dalhousie University," and the terms upon which the equipment was transferred.

2. The Board recommends that the sum of two hundred dollars (\$200.00) per year for five years be granted to the Faculty of Dentistry of Dalhousie University to assist in the purchase of permanent equipment and augmenting the Dental Library as follows: \$150 for equipment, \$50 for Library.

3. That the Board be instructed to take the necessary legal steps to wind up the affairs of the Maritime Dental College.

FINANCIAL STATEMENT

Maritime Dental College in account with Dr. Frank Woodbury,  
Dean

Receipts. Year ending July 1st, 1912

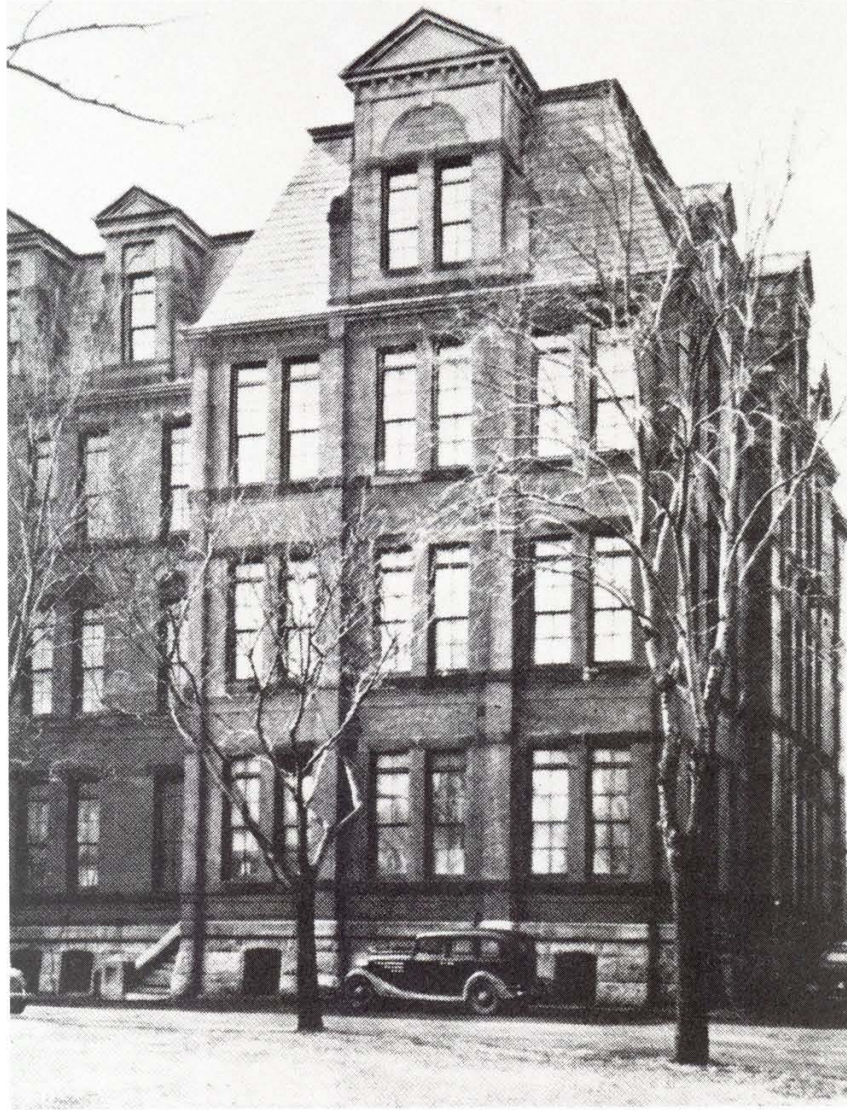
Received	Dental Board	\$75.00
"	Tuition and Registration, 17 Students	1734.00
"	Extra Class Fees	66.00
"	Caution Money	85.00
"	From Dental Infirmary	364.60
"	From Faculty of Dentistry, Dalhousie University	150.00
"	From Advertising in Calendar	32.50

Paid Treasurer

August 15th, 1911 to July 1st, 1912	
Dr. A.W. Cogswell as per vouchers	\$2507.10

This statement shows current Receipts for the year  
The Treasurer's Statement will show the condition  
of the Treasury.

Certified correct. S.G. Ritchie,  
Halifax, July 1912.



*Forrest Building - the home of the Maritime Dental College*

TREASURER'S STATEMENT  
 Maritime Dental College in account with  
 A.W. Cogswell, Honorary Treasurer.

Session 1911-1912

To Bal. Session 1910 - 22	\$19.15
To Donation N.S.D.A.	75.00
To Tuition Fees	1800.00
To Dalhousie Faculty	130.00
To Advertising	32.00
To Students Deposit	85.00
To Infirmary	364.00



By Demonstrators	1310.00
By Attendant	191.00
By Advertising	98.53
By Printing and Stat.	92.05
Dalhousie University	242.25
Sundry Accounts	
Charwoman	44.00
Laundry	11.99
Plumbing/Furnishings	28.12
Supplies	
Infirmary 75%	193.14
Laboratory 25%	64.38
Instruments	125.00
Membership Inst. Dent Pedags.	20.00
Students Rebate	83.00
Balance on Deposit	\$20.79

THE FACULTY OF DENTISTRY, DALHOUSIE UNIVERSITY  
DR. F. WOODBURY, DEAN

Gentlemen: - I beg to report to you that since the transfer of the Maritime Dental College, preparations have been made for the coming session. The course is substantially the same except in the following particulars:

The course in Histology taught by Professor D. Fraser Harris, whom we will hear to-night, is very thorough and comprehensive, and giving to Dental Students, beside the general course, special training in the Histology of the teeth and surrounding tissues. Dental Histology as a separate subject has therefore been discontinued. For similar reasons Botany has therefore been discontinued, but a Laboratory course in Physiological Chemistry will be given during part of the second year. While these students were taught before most efficiently, the present arrangement will make that section of the work more practical, and not occupy so much time. Comparative Dental Anatomy will be taught during a part of the second year.

Dr. S.G. Ritchie has been made professor of Prosthetic Dentistry with the same men who had the subject before taking their regular part of the course.

The Dental School is a member of the Institute of Dental Pedagogies and our comparative standing among the Dental Educational Institutions of North America may be seen by reference to the chart hanging on the wall.

The Faculty of Dentistry is determined to maintain a standard that will appeal to the best class of students, and a course of

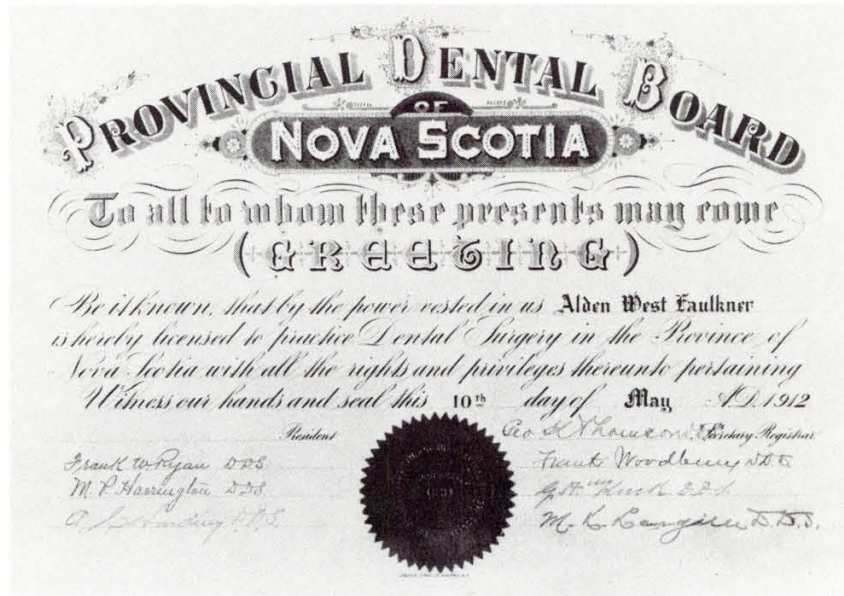


*A first Dalhousie Doctor of Dental Surgery degree , 1912*

instruction which will graduate men who can take their places among the cultured of their own and other professions with credit to themselves and honour to their Alma Mater.

The course is not materially changed from that taught by the Maritime Dental College, and the policy of this Association viz.: "To give the best possible to the capable student" will be carried out to the letter.

May I say a word or two in regard to the relation of the Dental School to the profession. It belongs to us as an Association as much as ever it did. We have put brains and money into it; created it, if you please, carried it through its babyhood and experimental stages, and now we dignify it, magnify it and give it the prestige of



A licence given to a Dalhousie dental graduate, 1912

university connection. Remember, however, our resolution in Sydney in 1909 when we pledged loyalty and our utmost support if the University did assume the management. Only upon such a basis could we have approached the University at all.

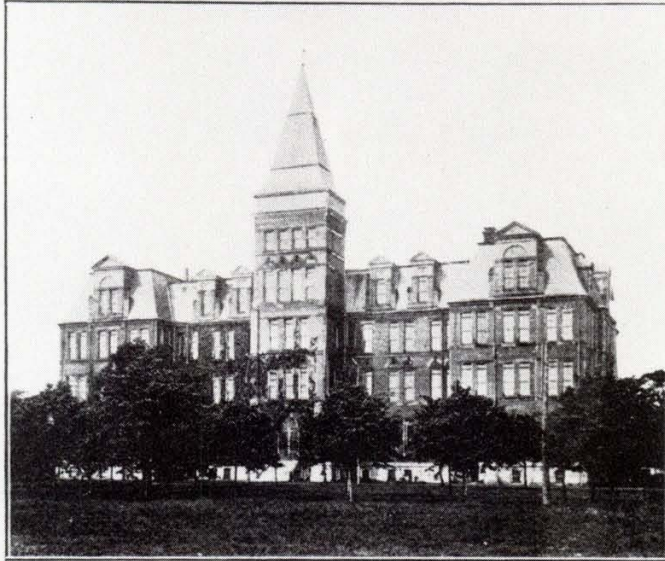
Manitoba will soon have a Dental School. Saskatchewan has plans for one in their new University buildings. Alberta will by and by erect a Faculty of Dentistry, and British Columbia will not be behind the rest. All these will be erected and maintained by an enthusiastic profession in each Province at the earliest possible. Shall the Maritime Provinces fall behind with the prestige we have already gained by our audacious courage manifested by the establishment of this school? Never.

We can hardly estimate the value of the Dental School to all parts of the Maritime Provinces. It has drawn the attention of the other professions to Dentistry, and is revealing them and to the public the place dentistry holds in the problem of the welfare of the race.

It will be of interest to every man in the profession to know that, when we get into our permanent quarters with ample apartments for our purposes, the Equipment and Library will be at their service to the full extent of the ability of the institution.

We shall expect the profession to provide students for us. We will equip them for the D.D.C. examination and spread out the whole Dominion before them.<sup>31</sup>

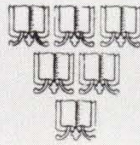
Thus, a new arrangement was developed with Dalhousie University in 1911-12, when both the Maritime Dental College and the Halifax Medical College ceased to exist. Under the new agreement, Dalhousie University



FORREST HALL

Housing the Schools of Law, Medicine,  
Dentistry and Pharmacy.

## Dalhousie School of Dentistry



*Dalhousie Faculty of Dentistry*

took over the complete teaching responsibilities of both faculties. However, it must be stressed, the University approached these steps with caution. When Dalhousie President Mackenzie “reported that Maritime Dental College wishes to be incorporated as a regular teaching faculty, he was authorized to confer with this body and ascertain their views. The opinion of the Board was that no action should be taken that would involve additional expenses.”<sup>22</sup> In spite of the financial misgivings of the Board, the Maritime Dental College became the Faculty of Dentistry of Dalhousie University—making Dalhousie the first university in Canada to establish a fully integrated Faculty of Dentistry—and the first class to register in dentistry at the Maritime Dental College, in September 1908, became in 1912 the first graduates in dentistry from Dalhousie University.

## II. DR. FRANK WOODBURY

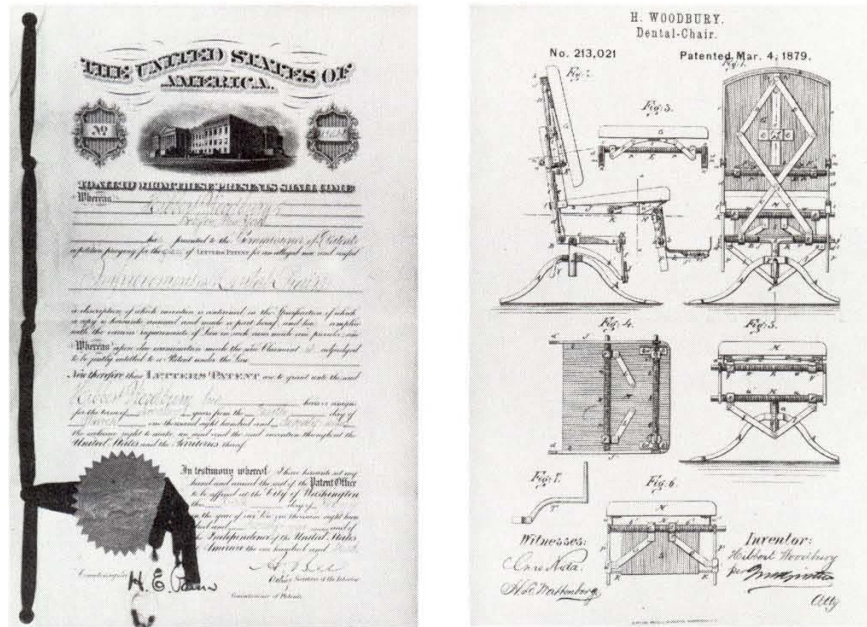
*To provide a mind well trained.*  
Frank Woodbury



*Dr. F. Woodbury, Dean Maritime Dental College 1908-12,  
Dean, Dalhousie Faculty of Dentistry 1912-22*

Dr. Frank Woodbury, the first dean of the newly established Dalhousie University Faculty of Dentistry, came from a family many of whose members were intimately connected with the development of dentistry—and particularly dental education—in the Maritimes and eventually influenced the development of dentistry nationally.

Dr. Frank Woodbury's older brother, Hibbert (1842-1913), was born on October 26, 1842, in Spa Springs, Annapolis County, Nova Scotia. After graduating from Philadelphia Dental College, he practiced in New York State before coming to Halifax. While practicing there, his inquisitive mind developed an improved dental chair, on which he was granted a patent on March 4, 1879.



Patent for Dr. H. Woodbury's dental chair

Dr. Hibbert Woodbury was superintendent of Grafton Street Sunday School for many years, a local preacher of the Methodist Church, president of the YMCA, and a director of the School for the Blind and of the Deaf and Dumb Institution. A charter member of the Nova Scotia Dental Association and chairman of its Committee on Education when the legislation was passed that made the founding of the dental school possible, he was at one time president of the Provincial Dental Board. The vitality and stature of any profession may be determined, at least to some degree, by the quality of its publications. But knowledge and information are of little value unless they can be communicated coherently and effectively. Dr. Hibbert Woodbury could do it. The main message of his article "Prosthetic Dentistry," published in the December 1905 issue of the *Dominion Dental Journal*, is as fresh and pertinent today in its main message as it was more than eighty years ago:

The definition of prosthesis in general surgery is, "The addition of an artificial part to supply a defect of the body."

The definition, therefore, holds good in the domain of dentistry, and we claim it invades the field of operative dentistry, so far as there may be supplied artificially any substance to take the place of lost tissue of the body.

If, therefore, our premises are correct, any filling inserted in a tooth for the purpose of taking the place of tissue lost from decay or otherwise, comes under the head of dental prosthesis.

The territories of prosthetic and operative dentistry not only approximate, but it is very difficult to define their boundaries, and if we insist upon a definite line of separation, we are involved in

endless perplexities. We take this line of thought rather than any discussion of the technique of prosthesis, however alluring that path might prove to be.

But there are legitimate fields for each to occupy. The operations can be classified in the main, so that there need be but little confusion in the mind, especially of the student. Granting, then, for the sake of our discussion, that there is a line of cleavage, we would just here condemn in the strongest language any tendency to place one department above the other.

The man that so far forgets his profession as to indiscriminately sacrifice teeth that he may replace them with artificial dentures, having an eye to the purely prosthetic, is on a par with the man that can only see in the mouth of his patient an opportunity for crowns and bridges. And just here we must not be understood as condemning either in their proper place, but we do think that the career of many a young practitioner has been marred by just such a false notion.

There is, we think, a growing disposition on the part of some dentists to assume a kind of superior air, and we hear the remark, "Oh, I give my attention to operative dentistry; I don't care for prosthetic dentistry; I dislike mechanical work." We think such a state of mind is not conducive to the highest attainment in any calling. We fain would pose as dental surgeons, and often forget that surgery, in all its branches, is almost entirely mechanical, so much so that no man can excel in the practice of surgery in any of its departments if he does not possess mechanical ability in a large degree.

No amount of technical lore can take the place of the dexterous fingers.

We grant that this is an age of specializing, and within reasonable bounds such specializing often brings good results to patient and operator, but if we subdivide our work to the extent of forgetting or failing to master in a fair degree the profession as a whole, we just to that extent lessen our usefulness.

Take, for example, the craze on porcelain work; if the articles in the dental journals and some of the demonstrations are an indication of the extent to which that work is being pushed, then woe to porcelain work; for as in the case of unwarranted bridge work, the failures will be "legion". We must not forget that we will have failures, do as best we can.

But it is the extreme specializing that brings disappointment to the patient and discredit on our profession.

In our own country the demand is for an all-round dentist. It may be well enough in very large cities to relegate some of the work to the man who runs a dental laboratory and advertises cut prices, but it is not, we think, a benefit to the profession in the long run. It gives the prosthetic side too much the air of a factory; it lessens the individuality of the operator, which is always injurious to character.

We think one of the beauties of our profession is the scope it gives to individual effort, and through the personal relation with our patients, so that if work is well and faithfully done there grows up a mutual friendship, and we win and deserve the respect of our patients.

We are convinced that in this regard dental prosthesis plays quite as important a part as any. And should it not? When all other efforts have failed from whatever course, what a boon to be able to restore to usefulness and comeliness the otherwise disabled and disfigured oral cavity.<sup>1</sup>

Both of Dr. Hibbert Woodbury's sons, William W. (1882-1967) and Ralph H. (1884-1924), graduated from the Pennsylvania College of Dental Surgery in Philadelphia as well and returned to Halifax to open their practices and to teach. Dr. Ralph Woodbury was on the teaching staff of the Maritime Dental College and later of the Dalhousie Faculty of Dentistry, teaching prosthetic dentistry. He was president of the Childrens' Aid Society. His brother William became professor of orthodontics, dean of the Dalhousie Faculty of Dentistry and president of the Canadian Dental Association. He was president of the Nova Scotia Provincial Dental Board, the Halifax YMCA, and the School for the Blind. He was honoured for his contributions to dentistry by being awarded an honorary LL.D degree from Dalhousie University in 1953.

Dr. Frank Woodbury's son Karl (1893-1946), a 1915 graduate of the Dalhousie Faculty of Dentistry, served in the Canadian Army Dental Corps overseas in World War I as Dental Officer in the Dalhousie Hospital Unit. He was a lecturer at his alma mater in materia medica and demonstrator in the Dental Infirmary.

Dr. Frank Woodbury was born on January 26, 1853, at Spa Springs, just outside Middleton in Annapolis County, Nova Scotia. He graduated from Mount Allison University and, at the urging of his brother Hibbert, enrolled at the Pennsylvania College of Dental Surgery, Philadelphia, from which he graduated in 1878. In partnership with his brother, who graduated a year earlier, he started to practice dentistry in New York State. However, the brothers moved back to their native province and established their dental office in Halifax.

In Halifax, Dr. Frank Woodbury devoted much of his energy and time, apart from his busy practice, to the religious education of young people in the Sunday School and to promoting the dental profession, not only in Atlantic Canada but across the whole country. He was in the forefront of dentists who worked to establish the Nova Scotia Dental Association. On its establishment, by an Act of the Provincial Legislature in 1891, he became its first secretary; as though this were not enough, he still found time to become the secretary-registrar of the Provincial Dental Board of Nova Scotia and later served as president of the Nova Scotia Dental Association. His address as the retiring president, given at the 9th annual meeting in 1899, attests to the interest Frank Woodbury had for the progress of his profession:



Gentlemen:

It is a pleasure to greet so many whose faces are familiar, and some who have not hitherto graced our Convention with their presence. We also welcome our friends from the United States who will contribute largely to the interest of the occasion.

Notwithstanding all the obstacles that have been thrown in the way of progress we find that each year has developed some advance of the preceding one, and to-day the dental profession in Nova Scotia has won for itself the respect and confidence of the public.

We may certainly congratulate ourselves upon having secured an Act of Parliament that places the profession under proper control, and is an immense step in advance of the voluntary unincorporated associations, for the administration of justice toward both public and dentists.

The Act is not perfect, but after its revision at next session of parliament it will doubtless be greatly improved. No law can be made which will prevent those from offending against its provisions who desire so to do, but such men must submit to be measured by the law in the hands of an intelligent public and are estimated at their true value. The same rule applies to those who violate the letter and spirit of the *Code of Ethics*. No code will prevent a mean man from breaking faith with his fellows - but such a man is at once weighed by the provisions of the Golden Rule as expressed in the Code and the inscription "weighed" - "wanting" is written over against him.

There are persons of whom none may entertain feeling of jealousy, but rather pity. I beg to congratulate you on the general observance of the law and code. The observance is so general that those who do offend are unpleasantly conspicuous. I desire to refer briefly to a few questions that will need your serious consideration at this time.

Considerable interest is abroad as to what the real position of the Dental Surgeon is, toward oral surgery and systemic treatment of diseases of the mouth and teeth. The desirability of a medical degree as a preparation for the practice of dentistry is receiving favor from many quarters, and an increasing number of dental students are taking both courses. I believe this is *ultimate destiny* for the dental profession. If we expect to be recognized to any large degree as a specialty in medicine and have the undisputed right to treat dental and oral disease constitutionally, as well as locally, we must stand on the same plane with the Aurist, Oculist and other specialists. I am convinced that the position taken on the subject last year, in my paper read before the Maritime Dental Convention at Digby is correct.

I believe the time has arrived when our Students of Dentistry should be encouraged, and urged to take the Medical as well as the Dental degree. To this end and as a first step I beg to suggest that

as soon as possible, as soon as it can be done without oppression to students already preparing for dental Matriculation, that the dental Matriculation be made identical with that required by the Medical Board. This of course can be done without Act of Parliament, but due notice should be given of contemplated changes.

Your attention is called to the necessity of a careful revision of the list of accepted Dental Schools, and possibly the advisability of requiring an examination from all who desire registration as practicing dentists.

A number of Dental Colleges are of very injurious character, and seem to be catering to the commercial side of their work without due regard for the qualification of their students.

This state of affairs demands that this association shall well guard the entrance to professional privileges in Nova Scotia.

We welcome all properly qualified men - but the shyster who tries to crawl through loopholes and "climb up some other way", except by the door *must be stopped*.

There seems to be but one way to accomplish this, viz; to apply the tests ourselves as they are applied by the most advanced Provincial and State Societies - by examinations.

My name is placed on the programme to open a discussion on "the advisability of affiliation with the Halifax Medical College" - but I will introduce it here in order that it may receive more thought than it could possibly have, if left until the last evening.<sup>2</sup>

Wishing to enable students from the Atlantic region to have the opportunity to obtain a dental education without having to leave the Maritimes, Dr. Frank Woodbury led the movement to establish a dental college in Halifax. Thus, when in 1906, the Nova Scotia Dental Association took definite steps to establish a dental school, he was in the forefront of this endeavour. Indeed, as Dalhousie President Dr. A. Stanley Mackenzie observed, without him the College and the Faculty of Dentistry would never had been established. Dr. Frank Woodbury was the dean of the dental school from its inception as the Maritime Dental College in 1908, through its transformation in 1912 into the Faculty of Dentistry of Dalhousie University, until his sudden death in 1922.

Equally great was his influence on the dental profession outside his beloved province. He did the groundwork for the establishment of the Dominion Dental Council, and, from its founding in 1904 until his death, he was a continuing member and at one time its president. He also became a president of the Canadian Dental Association, which owes much to his leadership and efforts in the early stages of its development. He was a leader in establishing the Dental Faculties Association and became its first president in 1920. In that year, Dalhousie University conferred upon him an honorary LL.D degree. At this occasion, President Mackenzie stated that no one outside the University knew how much of Dr. Woodbury's time,

thought and effort went into building the dental faculty. The time he gave so generously had to be taken from his busy professional practice; but it was a labour of love, for he saw that the work had to be done and he felt that he must contribute his share.

His chief non-dental concern was a life-long interest in religious education. As a member of the International Sunday School Association, he headed a commission that toured the West Indies in 1906 in the interests of this interdenominational movement.

As a public speaker and a writer, his exceptional ability to put the important facts he had to state in a clear, concise manner gained him the esteem of his confrères. Seeing, in 1920, the need for improvement in dental education, he believed that as the years pass and the importance of dentistry in the preservation of the health of the world came to be recognized, a larger responsibility would be placed upon the profession, and the necessity of better dental education would become more apparent if dentistry were to keep step and continue to merit the confidence of the public.

Dr. Frank Woodbury's critical, wide-visioned and self-sacrificing insistence on the best, and nothing short of the best, did much to mold the character of Dalhousie's Faculty of Dentistry. In the last week of his life in 1922, his work was, as it were, crowned by a visit of the Carnegie Fund Commission. A survey team of impartial experts who had come to inspect the school and gave their approval, voiced their satisfaction with the work the Faculty was doing under Dr. Woodbury's leadership:

Dr. Gies as spokesman for the Delegation left with the President and the Dean the impression that the Dalhousie Dental School was established on an absolutely correct and sound foundation that the Educational course was a high order and that its possibilities were only limited by its financial need.

At the request of Dr. Gies, President Mackenzie prepared and handed to him a memorandum of the needs of the School which including new Building and Equipment, increased Staff, Library...to the sum of \$1,000,000.<sup>3</sup>

The *Dalhousie Gazette* of March 29, 1922, summarized in its lead article "The Man and His Work," its editorial and other articles the role Dr. Frank Woodbury played in Dalhousie University as a whole, and the dental school in particular.

It was, however, as a person that Dalhousie's first dental dean won the love and confidence of his dental students. As was mentioned in "In Memoriam and in Appreciation to Dr. F.W. Woodbury," his impeccable honesty, his uncompromising devotion to all that was highest and best in civic, provincial or national endeavour, his unclouded vision based firmly upon the values that lie beyond, his philosophy of life, which led him to

make a part of himself all the things that are honest, just and true and lovely, secured for him a memory that will be cherished by successive generations of dental students and dentists who have a better school and a better profession because of his influence.

On May 8, 1922, at the first meeting of the Faculty held after his death, a Memorial Page dedicated to his memory was inserted in the Faculty Minute Book:

Mr. President;

At this the first meeting of the Faculty held since the death of our late Dean, Dr. Frank Woodbury, the first meeting ever held without his bodily presence, BE IT RESOLVED; that a page of the Minute Book be reserved, and dedicated to his memory; and that thereon be inscribed an expression of our appreciation of what he has done and of what he was, and of our sense of bereavement and loss in his removal.

As individuals we have lost a friend and companion; an inspiration to higher and nobler ideals; a stimulus to effort and an example of faithful devotion to duty.

As a Faculty we have lost the mainspring of our activity, the inspiring influence of his enthusiasm, the guidance of his ripe judgment and the administrative efficacy of his knowledge and experience.

We can but mourn our loss, and gratefully acknowledge our indebtedness for the life he lived, the character he has impressed upon the school and the spirit he has bequeathed to it.<sup>4</sup>

### III. CANADA'S FIRST FACULTY OF DENTISTRY STRUGGLES TO ESTABLISH ITS OWN HOME

*Per ardua ad astra.*

FACULTY OF DENTISTRY, DALHOUSIE COLLEGE,  
HALIFAX, N.S.

At first reading, the above Institution would seem to be a new star to rise in the East, but it is really our old friend the Maritime Dental College under a new name. The Maritime Dental College has been made a full teaching Faculty of Dalhousie under the above title. We have been greatly interested in the effort of the Nova Scotia Dental Association to establish a Dental College in the Maritime Provinces. There is a very real reason why such an institution should exist in that part of Canada, especially since the establishment of the Dominion Dental Council. Many have thought it quite impossible, but during the four years just past the men who have had the institution in hand, have seen it grow steadily until now the possibility of such a school being able to exist has been demonstrated, and with the co-operation of the Dental Association and other Faculties of the University a Dental School has been founded, which is able to carry on the work of every department with an efficiency quite equal to the best.

The action of Dalhousie in making this a teaching Faculty is sufficient guarantee that the high standard set by the Maritime Dental College will be maintained. This month the first graduating class will receive the degree of D.D.S. The Dental Association has still a substantial interest in the department and appoints a part of the professional examiners.

The Dental Board has elected the Dental Faculty of the University as professional examiners for registration in co-operation with men appointed by themselves. The profession in the Maritime Provinces is working together to make this institution one of which Canada can be proud.<sup>1</sup>

Thus, the *Dominion Dental Journal's* April 15, 1912, editorial greeted the transformation that took place in the teaching of dentistry in and for Atlantic Canada.

The Faculty of Dentistry's teaching facilities were in the Forrest Building, which accommodated the whole University, including the schools of law and medicine:

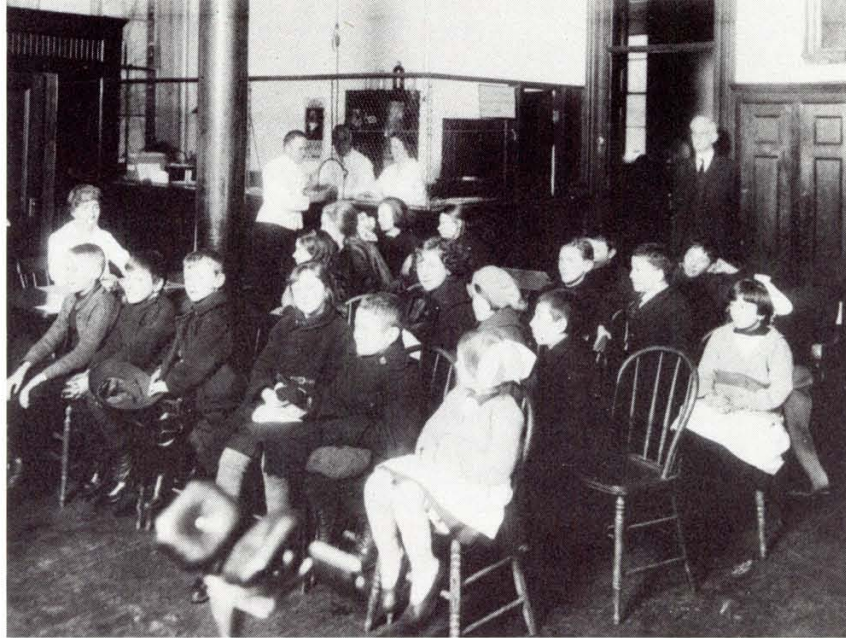
with the completion of the first buildings on the Studley campus, around the end of the 1914-18 war, more space became available and there was a rapid spreading out. The chief additions to the Dental School were the old library quarters in the entire south end of the first floor. This was to continue as the operating Infirmary until the Dental School moved into its own new building. The corresponding portion of the floor above, in what had served for years as the Physics Quarters, became available and was made over to accommodate the Dental Clinical and practical laboratories.

This was the first main change in what was to become an almost continuous series of changes of trying to make over to the best possible advantage an old building built over forty years earlier as a building designed almost entirely for lecture rooms and with scant provision for laboratory space into one which later became almost entirely consisting of laboratories. The problems were great and increases in such things as drains, electric circuit, etc., consumed many entire summers of remodelling, to bring them even approximately up to date.

The old prosthetic laboratory contained a line of polishing lathe heads, where the student had to stand on one leg while he drove the pedal with the other foot.<sup>2</sup>

Students contemplating dentistry as a career would have been interested in gaining an insight into the opportunities presented by the profession and the type of education involved. An informative booklet printed by the Dalhousie Faculty of Dentistry gave them at the beginning of the 20th century (and us at its close) an outline of such information and of the facilities available for the study of dentistry. In a brief outline of "Dentistry as a Profession," potential dental students were informed that the atmosphere of a professional school would be such that the student will unconsciously develop that "scientific curiosity that may lead to research." This publication assured readers that the dental profession offered wide opportunities for clinical practice, called for medical and surgical judgement, mechanical skill and artistic ability: "The unsolved problems of causation cry aloud for students with vision and sound training to devote themselves to research, and there is an increasing demand for teachers, with a thorough scientific grounding."<sup>3</sup>

Particular emphasis was placed on the planning of dental treatment, still



*Waiting room in the Forrest Building filled with children from a Halifax orphanage waiting for their dental treatment. Dr. F. Woodbury standing on the right while Miss Gladys Littler is behind the counter (c 1921)*

one of the most difficult areas to teach and to integrate within the curriculum. A student's first concern must be, according to the stated objectives:

to obtain a clear picture of his patient's dental condition, especially in its relation to his general health. He is then in a position to decide the treatment indicated and to plan the specific operations necessary to put that treatment into effect. Without this broad approach, he may embark on ill considered procedures, or overlook conditions that are a menace to health.<sup>4</sup>

At Dalhousie, prospective students were assured, emphasis was placed on the health of the patient and special dental techniques were considered as a means to this end. The objective of dentistry, as of general medicine, was prevention. While for the dental profession at that stage it was not possible, with its knowledge, to completely prevent the inception of dental disease, it was emphasized that much could be done to control it by restorative and preventive methods. The student was to be made familiar with the "present state of knowledge" and the limitations of "reparative" dentistry were pointed out. Emphasis was placed on the need for continued research to clarify the problems of dental disease so that treatment might be made more effective.



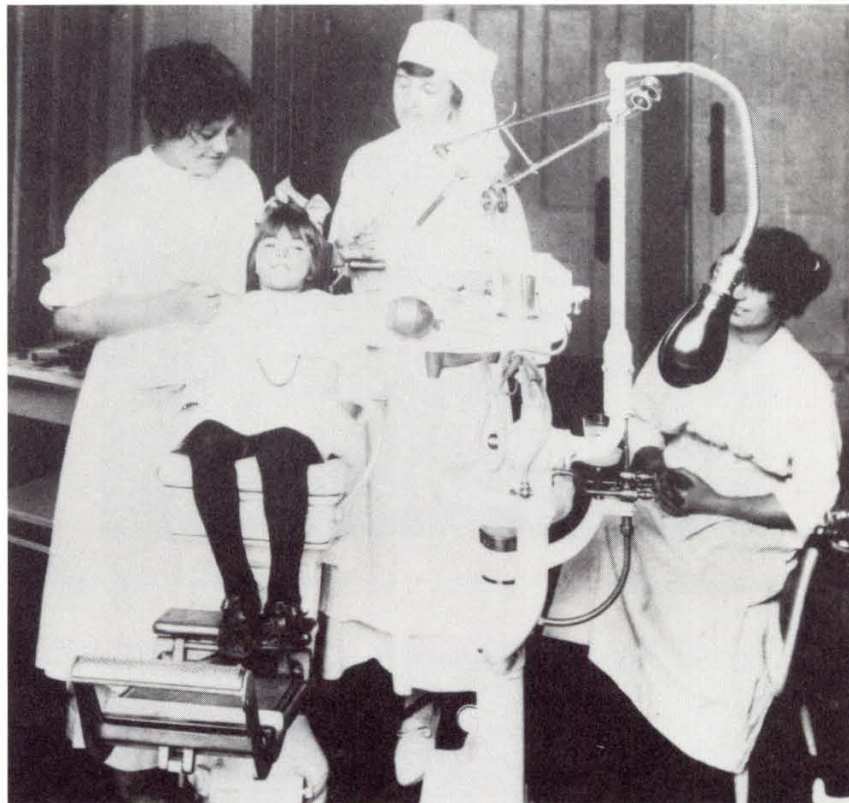
*Dental Infirmary, Forrest Building, c. 1917; Dean F. Woodbury is standing in the background*

On the subject of the value of a well-stocked library as a necessary adjunct to teaching, learning and general scholastic activity, one particular feature was stressed for the interested student, namely that the library shelves were open to them and that the reading tables were placed in the same room. This permitted students to browse around the books and periodicals at will. (One cannot fully appreciate this open system unless one has experienced the restricting atmosphere of those university libraries in North America in which the average undergraduate student does not have free access to the stacks.)

The cost of a dental education at Dalhousie at that time was very reasonable, especially for a dental school of its high standard. The fee for each of the four professional years was approximately \$275, with an additional annual fee being charged to students who registered from outside the British Empire. As in all other dental schools of this period, the students were asked to provide their own instruments for technical work and practice; these same instruments would later form the nucleus of their equipment for practice after graduation. At Dalhousie, the requirements were kept to a minimum, consistent with efficiency. Instrument costs differed in the various years; at the beginning, they were approximately \$25 in the first and fourth years, \$125 in the second year and \$75 in the third year.<sup>5</sup>

Dalhousie also made a break with the then-frequent practice of the dean having a direct financial interest in the school, receiving dividends from money paid in fees by the students and from infirmary fees. At Dalhousie, all money received from student and infirmary fees was turned over to the school and was used to improve the school as an educational institution. All members of the staff received no more than a modest honorarium in





*Dental student, Arrabelle Mackenzie (left), the first woman dental graduate of Dalhousie (1919 class), at the pre-school age dental clinic at Admiralty House, set up by the funds given to the people of Halifax by the people of Massachusetts after the Halifax explosion of December 6, 1917*

recompense for time lost from their private practices. Indeed, in the May 1920 report of the Dental Infirmary Committee, the Secretary of the Faculty was instructed to write to the president of Dalhousie "re increased remuneration to the Demonstrators and to suggest the sum of \$12.00 instead of \$7.00."<sup>6</sup> (It is a sobering thought when reading another report by another dean, in 1987, to come to the conclusion that the situation had not changed appreciably over the ensuing years.)

Until 1921, all members of the Faculty were part-time teachers. In that spring, Dean Woodbury persuaded the University of the essential need for a full-time appointment to the Faculty:

The President brought up [before the Board of Governors] the question of the urgency for providing a full time Instructor in Dentistry which the Dean of the Faculty Dr. Woodbury had convinced him this was an absolute necessity and recommended the appointment of Dr. [J. Stanley] Bagnall....<sup>7</sup>



*Graduates of the first ten classes 1912-21 with originally appointed faculty*

#### NEW FACULTY APPOINTMENTS 1912-1922

1912-13	Dr. Lehr	Special lecturer, St. John's, Nfld.
	Dr. T.P. Smith	Special Lecturer, St. John's, Nfld.
1913-14	W.H. Eagar	Lecturer in Roentgenology
1914-15	A.W. Faulkner	Lecturer in Prosthetic Dentistry
1915-16	H.S. Tolson	Lecturer in Operative Dentistry
1916-17	G.R. Hennigar	Lecturer in Exodontia
1920-21	K.F. Woodbury	Lecturer in Materia Medica
1921-22	J.S. Bagnall	Instructor in Dentistry

*Note: Members of other Dalhousie faculties who were appointed to teach dental students, for example a basic science course, are not being listed.*

*Source: Faculty of Dentistry calendars*

After Dean Frank Woodbury's death in 1922, Dr. Frank Ryan was the logical successor as dean. Dr. Ryan, a charter member of the Canadian Dental Association, was nearly 40 years in active dental practice, during which he gave unsparingly of his time and talents to everything that contributed to the interest and advancement of his profession. In his last 16 years, however, his greatest interest was the dental school. Closely associated with Dr. Frank Woodbury in the organization of the Maritime Dental College in 1908, Dr. Ryan received the appointment of Professor of Operative Dentistry, a post he held until his death.

It was not an easy time for him to be the dean (actually, it seldom was for anyone, even at the best of times). In its early years, the Faculty was greatly handicapped in its endeavour to provide the best possible programme, as no public recognition had been vouchsafed to the dental



*Dr. F.W. Ryan, Dean 1922-24*



*Dr. G.K. Thomson, Dean 1924-35*

school in the way of grants or endowments. Dean Ryan readily acknowledged that Dalhousie was doing what it could for the school, but he also acknowledged faculty members for contributing their time and labour with inadequate remuneration.

From September 16 to October 21, 1924, the Faculty was called on to sustain the sudden deaths of Dean Ryan and Dr. Ralph H. Woodbury. The sudden passing of these men would have made it difficult for the Faculty to "carry on", but for the spirit of self-sacrifice and co-operation on the part of the other faculty members. The man chosen to be the Faculty's third dean was Dr. George Kerr Thomson. Dr. Thomson was born at Newcastle, New Brunswick March 26, 1870. He moved to Annapolis, Nova Scotia where he entered a drug store and passed his pharmaceutical examination in 1888. He graduated from Philadelphia Dental College in 1892 and returned to Annapolis to practice. In 1897 he moved to Halifax where he continued in practice until his death in 1935. He was President of the NSDA 1897-1898; Secretary - Registrar, Provincial Dental Board 1898-1923; Chairman, Oral Hygiene Education Committee, 1921-1926. He had a long association with the Dominion Dental Council, which he was the N.S. representative from 1922 until his death. He served in the Canadian Army Dental Corps in Halifax, 1915-1918. Dr. Thomson was elected a Fellow of the American College of Dentists in 1925 and was President of the Canadian Dental Association 1925-1926. He was a member of the Dalhousie dental school teaching staff from its inception in 1908.

In the autumn of 1923, to align itself with the best dental schools in North America, the Faculty had added one year of pre-dental education in Arts to the four-year professional course. As this had made no appreciable



*Histology laboratory, Forrest Building, 2nd floor, c. 1940's*

difference in the number of applicants, in 1926, Dalhousie was among the first dental schools to require a second pre-professional college year, as was already the case in law and medicine and as would become a standard requirement for entrance everywhere in North America.

Constant revision of curriculum was the order of the day. For instance, metallurgy, which later evolved into a course dealing with dental materials and finally into modern biomaterials, was as important a subject in the early days of the dental programme as it is in today's curriculum. In 1927, a subcommittee dealing with curriculum recommended that those parts of this course dealing with the general properties of metals be taught in the first professional year as part of the basic sciences and that the balance of the course, which refers to dental applications, be given in the second year by a dentist trained in this field. Not a bad idea for 1927, and one that would be applied successfully in many dental schools sixty years later.

In the Dental Technic report of the American Association of Dental Schools, published in March 1931, the Dalhousie Faculty of Dentistry's teaching programme was compared favourably with those of the rest of the North American schools. For example, the Dalhousie programme of orthodontic technic had 60 curriculum hours in the third and fourth year.

Thirteen American schools submitted no report; others, such as the University of Southern California, had only 16 curriculum hours. As another example, the Dalhousie fixed (crown and bridge technic) and removable prosthodontic programmes were:

Second Year:

1. Making and tempering eight instruments.
2. Plaster casts.
3. Vulcanite wedge.
4. Vulcanite base plate.
5. Full denture.
6. Repair broken base plate.
7. Full upper and lower set-up.

Third Year: Hours 330

1. Full upper and lower swaged dentures.
2. Soldering.
3. Cast aluminum denture.
4. Cast brass saddle.
5. Full upper and lower anatomical on the swaged plates.
6. Vulcanite tooth with metal tang.

Fourth Year: Hours 450

1. Brass saddle, with tube teeth, vulcanite attachment.
2. Splint, cast aluminum.
3. Bar, lower, with clasps.
4. Retainers, selected types.

Third Year:

1. Gold shell or telescope crown with cast cusps.
2. Gold crown, by casting on pure gold matrix.
3. Richmond crown with two-prong dowel, Steele facing cast gold cusps, for upper first bicuspid.
4. Porcelain crown ground to fit, for upper central.
5. Swaged-base crown with Steele facing, completed by soldering, upper lateral.
6. Porcelain crown with swaged floor, base completed by casting, upper central.
7. Bridge, modified Carmichael attachment on cuspid, lateral pontic made up of a Steele facing completed by soldering.
8. Bridge from second molar to first bicuspid, three-quarter veneer crowns, second bicuspid pontic, Steele facing occlusal surface restoration of gold, first molar pontic, Steele interchangeable tooth.

Fourth Year: Hours (included in Prosthetic).

1. Four-tooth fixed bridge, lower first bicuspid to second molar, bicuspid, MacBorgle attachment; second molar,

- M.O. inlay, bicuspid pontic, first molar cast gold occlusal span.
2. Upper fixed bridge, Tinker three-quarter crown on cuspid, pontopin porcelain root pontic, very narrow lingual rest on central.
  3. Fixed bridge Carmichael attachment, carrying pontic and occlusal rest, one-piece casting. Woodworth method.
  4. Porcelain inlay and porcelain jacket.
  5. Removable bridge, external type, modified Aker. Wrought clasps of round high tensile wire, occlusal or lingual rests, tube teeth or Steele's all porcelain pontics.
  6. Removable bridge, internal type, inlays, Brown-Sorensen attachment.

The dental anatomy and operative technic programme was as follows:

First Year:

1. Carve all the teeth on one side, artificial ivory.
2. Dissect all the teeth (extracted), showing chambers and canals.
3. Prepare microscopic sections.

Second Year:

1. Instruments - uses, grasps, etc.
2. Principles of cavity preparation.
3. Prepare thirty typical cavities.
4. Fill nineteen.
5. Root canal work.
6. Separation.
7. Matrices.
8. Exclusion of moisture.
9. Position at and management of chair.
10. Office records.<sup>8</sup>

In early 1935, Dean Thomson died, and with the selection of Dr. William W. Woodbury as the new dean, the leadership of the dental school passed to a new generation.

In his first report as the new dean, Dr. W. W. Woodbury paid a tribute to the late Dr. G.K. Thomson: "A perusal of the reports of this Association during the past two or three decades will show the large place that he [Dr. Thomson] occupied in our activities and councils....His sincere devotion to his beloved profession will be gratefully remembered for a long time."<sup>9</sup>

The situation in dental education that the new dean confronted was not without its problems. In the late 1930s and early 1940s, a report on medical education published in the United States ("The Flexner Report") argued that health-sciences education was in a sorry state. Medical and dental education was said to suffer because not enough emphasis was placed on



*Dr. W.W. Woodbury, Dean 1935-47*

the didactic side of health education—the training of physicians and dentists was still a glorified apprenticeship system. As the result of this report, health educators began to take a hard look at their curricula, the disciplines making up the course content, and at those who were responsible for teaching.

So great was the turmoil in the changing philosophy of dental education that it affected the Faculty more than the outbreak of the Second World War. (Indeed, aside from necessitating some faculty adjustments and perhaps as a factor in the reduced enrollment, the effect on the school in the first few years was not great.) Thus, in 1941, the so-called “Harvard Plan”

experiment in dental education became a controversial topic, not only at Dalhousie, but throughout dental education facilities in North America. Basically it was an attempt to approach dentistry from the educational side as in reality a branch of the healing art of the same status as any other division of medicine and calling for the same fundamental training. This became a focus of considerable controversy and of a symposium entitled

#### NEW FACULTY APPOINTMENTS 1922-1935

1922-23	D.G.A. Chudleigh	Lecturer on History, Jurisprudence, Ethics & Economics
1924-25	C.B.H. Climo	Lecturer in Jurisprudence
	H.S. Crosby	Lecturer in Ethics & Economics
1926-27	M. Brodie	Instructor in Drawing, Modelling & Metalcraft
1927-28	W. G. Dawson	Demonstrator in Pre-school Age Clinic
	G. M. Logan	Demonstrator in Dental Metallurgy
1931-32	J. F. Griffin	Demonstrator in the Adult Dental Clinic
	A. B. Haverstock	Demonstrator in Pre-school Age Clinic
	S.K. Oldfield	Demonstrator in the Adult Dental Clinic
1932-33	J.W. Dobson	Demonstrator in the Adult Clinic
1934-35	I.K. Lubetsky	Demonstrator in the Adult Dental Clinic
	J.A. Noble	Lecturer in Surgery

*Source: Faculty of Dentistry calendars*

## NEW FACULTY APPOINTMENTS 1935-1947

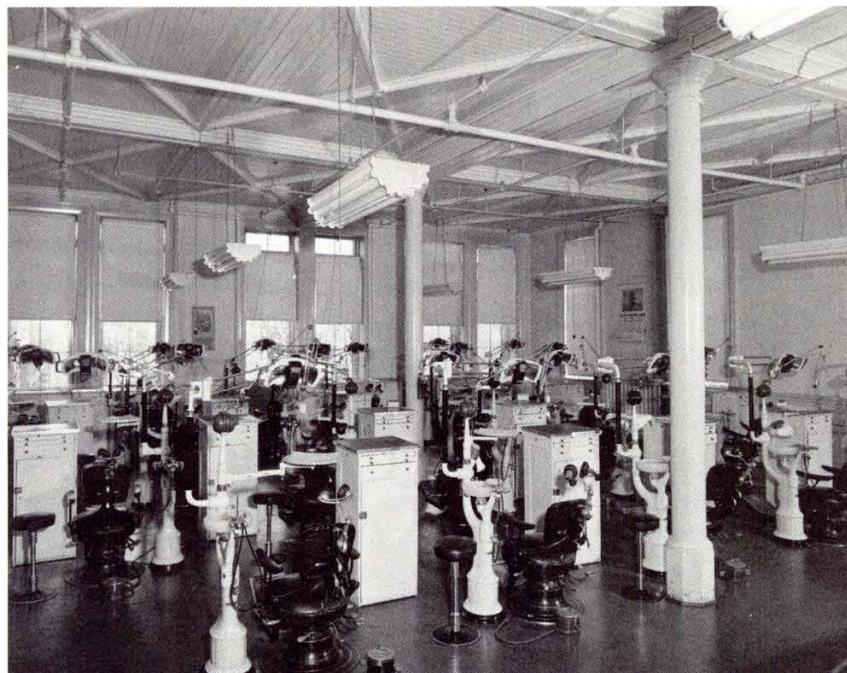
1935-36	E. E.O. Adams	Lecturer in Drawing, Modelling & Metalcraft
	F.R. Duxbury	Demonstrator in the Adult Dental Clinic
	W.V. Hogan	Demonstrator in the Adult Dental Clinic
1938-39	E.W. Barnstead	Demonstrator in the Adult Dental Clinic
	W.C. Dowell	Demonstrator in the Adult Dental Clinic
1939-40	A.M. Marshall	Lecturer in Surgery
1940-41	G.M. Dewis	Demonstrator in the Adult Dental Clinic, Lecturer in History
	A.A. Dunlop	Lecturer in Economics
	W.H. Jost	Lecturer in Jurisprudence
1941-42	A.S. Patillo	Lecturer in Jurisprudence
1942-43	A.G. Nutley	Demonstrator in the Adult Dental Clinic
	W.M. Sinclair	Assistant Demonstrator in Operative Dentistry
1944-45	F.W. Bissett	Lecturer in Jurisprudence
	O.L. Croft	Lecturer in Exodontia & Demonstrator in the Adult Clinic
	H.M. Eaton	Lecturer in Radiology & Demonstrator in Operative Infirmary
1945-46	P.S. Christie	Demonstrator in Operative Infirmary
1946-47	L.J. Archibald	Demonstrator in Operative Infirmary
	D.C. Eaton	Lecturer in Operative Dentistry & Demonstrator in Operative Infirmary

*Source: Faculty of Dentistry calendars*

"Trends in Dental Education" that was held in the United States. In Dean W.W. Woodbury's opinion, the main addresses given at this symposium did not encourage optimism regarding acceptance of the Harvard Plan. To him there was an exhibition of inelasticity of outlook and an undue concern for the status quo in dental education. The preoccupation of the profession regarding the relative accomplishments of dentistry and medicine, in his opinion, gave more than a hint of a state of mind bordering on an inferiority complex. Fortunately, at Dalhousie, he was able to report evidence of both medical and dental faculty being willing to attack jointly any problem that can be shown to be of common interest.

By 1942, the establishment of an accelerated dental programme became a necessary war measure. Convocation was held on May 2 and on May 18 the dental school was again opened for the second, third and fourth years. This was in response to a request from the Department of Defence and was in line with a general policy adopted by the dental schools of Canada and the United States at the wishes of their respective governments. The programme eliminated the summer holidays and it was not a curtailment or





*Dental Infirmary, Forrest Building, c. 1953*

contraction of the actual teaching time. Thus, those who entered as freshmen in 1942 would be able to graduate in May 1945 instead of May 1946. To meet the needs of students who would ordinarily depend on money earned during the long vacation to defray part of their college expenses, arrangements were made whereby those in the third and fourth years who looked forward to serving in the Royal Canadian Dental Corps were enlisted as privates in the Army, granted pay and allowances and also leave of absence for special duty, the special duty being to complete their dental education. Loans were also made available to students who were not eligible to serve in the Corps through an arrangement between the federal and provincial labour departments.

When illness compelled Dr. Karl Woodbury to discontinue his lectures in material medica, the whole matter of instruction in this field was reviewed. Negotiations were carried through with the Department of Pharmacology with the result that lectures and laboratory work in pharmacology was instituted for dental students, these forming a foundation for the more particular study of therapeutic agents employed in dental practice.

Due to the accelerated course, all classes were not running concurrently so it was not an easy task for the Faculty to keep an organized scheduling. Dean W.W. Woodbury acknowledged at the 53rd annual meeting of the Nova Scotia Dental Association the loyalty and devotion of his faculty, who had cheerfully forgone their customary summer vacation periods in order to keep the dental school going on this accelerated schedule. It was a strenuous programme for teachers and students alike, but there had been no

complaints. It has been recognized as a war effort and undertaken as such.

The postwar influx of veterans in 1946, the ever-increasing number of qualified applicants and the rapidly growing demand for more dentists made it quite evident that the existing facilities of the dental school were inadequate.

In February 1947, the Faculty lost a valuable colleague with the death of Dr. F.V. Woodbury, who, since the beginning of the school, had taught oral surgery, anaesthesia and physical diagnosis. This was also the final year of Dr. W.W. Woodbury as Dean. In his message to the Nova Scotia Dental Association, he chose not to look back and reminisce but to look into the future of his beloved profession:

And finally I should like to make a few observations regarding the goal of dental education. It must be a two-fold goal: the young graduate must be equipped to think and to do; he should have knowledge and skill; the educated mind and the trained hand. Neither by itself is enough. Dentistry has always insisted on the trained hand and must continue to do so. We need have no worry on that score, for the clinical teaching in our schools is for the most part carried on by part-time teachers who are in daily contact with the problems of actual practice. They will not allow any dreamy dean to forget the rigorous necessities of everyday dentistry. But someone has to dream. When there is no vision the people will perish and without a vision a profession will perish—as a profession. If dentistry perishes as a profession—which is by no means an impossibility—it will be because it failed to realize that the art or practice of any profession must be based securely on a vigorous and untiring development of its science.

The favourite indoor sport of some people is to discover recurring crises, but a good case could be made for a current educational crisis in dentistry, and it is to be found in the region we are discussing the relationship between the science and the art of our calling. You will recognize this as a recurring theme in these reports during the past dozen years. It has recurred because it has become an established conviction. So I should like my final message as Dean of your College to be an emphasis and confirmation of the necessity of keeping in the forefront of any educational program the determination to base our therapeutics which must be so largely mechanical on fundamental biological science; and this carries as a corollary a parallel determination to foster diligently as a profession all efforts designed to arrive at an understanding of the causes that produce the conditions that call for this endless repair; and that means research. The community will rightly expect this of us and if we do not face up to it they will see that someone else does.

Sixty years ago there was no more “practical” man in the medical profession than Osler. Acclaimed as the outstanding clinician of his day he was at the same time a leader and a dreamer

who saw his profession facing much the same issue that dentistry faces today. Speaking in 1894 at Philadelphia before the Wistar Institute of Anatomy and Biology he warned his hearers that "perdition inevitably awaits the mind of the practitioner who has never had the full inoculation with the leaven (of science), who has never grasped clearly the relations of science to his art, and who knows nothing, and perhaps cares less, for the limitations of either", while on the other hand "a scientific discipline is an incalculable gift, which leavens his whole life, giving exactness to habits of thought and tempering the mind with that judicious faculty of distrust which can alone, amid the uncertainties of practice, make him wise unto salvation."

When one thinks of the profound and salutary influence that Osler exerted as a clinical teacher surely it would be well to pay heed to this balanced judgement from such a source.<sup>10</sup>

The selection of a dean for the Faculty followed the usual pattern established by the University, but with the retirement of W.W. Woodbury as dean, the established selection policy changed. Now men who had taken up dental teaching as a full-time career were appointed to the senior post. The first of these was Dr. J.S. Bagnall.

Dr. J. Stanley Bagnall was the son of a dentist, who was one of those present when the Canadian Dental Association was first organized in Montreal in 1902. He received his preliminary education in his native Prince Edward Island, then commenced the study of dentistry at Dalhousie and located in Halifax after graduating. Even as an undergraduate, his diligence and ability won him distinction, qualities that were to be maintained throughout the years. His efforts for the improvement of dentistry never flagged or failed, and were indeed often beyond the call of duty. An editorial in *Oral Health* compared him with dental pioneers like Willmott, Webster, Woodbury, Seccombe and Cameron, and noted that Dr. Bagnall was blessed with the confidence and respect of his confrères.<sup>11</sup>

Dean Bagnall was happy to report in 1948 that the Faculty was now in receipt of substantial annual grants from the various Maritime provinces and Newfoundland. As these grants were again given and increased, a point was reached where, for the first time in its history, the Faculty could look forward to the future with some degree of financial security and make long-range plans. In Dean Bagnall's words "it should be our aim to justify this expression of confidence and endeavour to play a worthy part in dental education."<sup>12</sup> This was more important than one may realize today. The Faculty of Dentistry enjoyed in those days, the unique, if not enviable, distinction of being the only Faculty in the University to carry on without the aid of any endowment whatsoever.

The situation as late as the 1950s was not very enticing for recruitment of dental faculty (or indeed for any teaching position in most Canadian universities). Headlines in newspapers such as "College Lecturers say Pay is



*Dr. J.S. Bagnall, Dean 1947-54*

Less than Janitors Get" described a situation "where some lecturers get less than janitor who sweeps out the classroom, assistant professors less than plumbers and full professors with a string of degrees little more than bricklayers."<sup>13</sup> The dental schools had to entice potential faculty away from opening their own offices and being on their own!

In the 1950-51 academic year, the Faculty took advantage of the Kellogg travelling scholarships: Dr. McGuigan spent some time at Harvard and other institutions in the eastern United States studying teaching methods in

children's dentistry, and Dr. Croft spent about three weeks in Chicago visiting various dental schools there in a survey of their methods of teaching advanced exodontia. The next year, Dr. Hugh Eaton furthered his studies in dental radiology and Dr. Gordon Pentz took an intensive course in "periodontoclasia" (as periodontics was then called) and was thus able to restart the periodontoclasia clinic, which had been interrupted by the death of John Dobson the previous year.

At Dalhousie, in 1953, dentistry was still housed in the south end of the Forrest Building. The whole dental course was taught there in cramped and crowded surroundings, with the exception of an extraction clinic (where the patients were sedated with nitrous oxide) at the Public Health Clinic. (The latter is now known as the Clinical Research Centre and is part of the medical school, facing University Avenue and connected to the Tupper Building by the "Link.") Times were not easy for the dental school. There was the perpetual shortage of funds with which to attract full-time teachers and there was the shortage of career teachers trained in a particular specialty. This was as true at Dalhousie as anywhere and, indeed there were few dental specialists in the whole Atlantic region. The only dental specialities represented in the 1950s in the whole Atlantic region were orthodontics and oral surgery, and these were only to be found in Halifax! Graduate programmes offered by dental schools were scarce and dentists interested in furthering their education in specialty areas were few.

Financial considerations have always influenced the progress and expansion of the Faculty of Dentistry. Until 1940, Dalhousie University functioned as a privately endowed institution depending solely on students' tuition fees and on income from private endowments or gifts. The first provincial grant for the direct support of the Faculty of Dentistry was

made by the Government of Nova Scotia in 1939-40. Newfoundland made its first grant in 1943, but it was not until 1947 that the other two Maritime provinces provided any assistance.

Dreams and wishes for more suitable quarters grew steadily. One proposal was that when space became available as a result of the law school moving to Studley Campus, the dental school might expand into the north end of the Forrest Building. Fortunately for the further growth of the Faculty, Dean Bagnall was able to prove conclusively that this would be of no help, that it would have been expensive to move within the old Forrest Building and with very little gain in physical facilities. It would also only repeat the difficult process of trying to use quarters for a purpose quite different from that for which they were originally intended.

Finally, the Board of Governors of Dalhousie, under the presidency of Dr. A.E. Kerr, agreed to expand the dental facility, and it then became possible to consider a uniform programme of improvement in all aspects of dental teaching. There were numerous meetings with members of the Board of Governors and other interested parties. However, the idea of new quarters on a portion of the Forrest Campus, which had always been visualized as the logical place for a new dental building, did not come

#### NEW FACULTY APPOINTMENTS 1947-1954

1947-48	F.C. Fennell	Demonstrator Adult Clinic
	J.P. McGuigan	Lecturer in Dental Anatomy and Comparative Dental Anatomy
	J.E. Merritt	Lecturer in Ceramics & Acrylics
	D.G. Pentz	Demonstrator in Operative Infirmary
1948-49	L. S. Goldberg	Demonstrator in Pre-School Age Clinic
	C. G. Mackinnon	Lecturer in General Anaesthesia
1949-50	D.B. McNeil	Demonstrator in Adult Dental Clinic
1950-51	A. H. Ervin	Demonstrator in Operative Infirmary
	K.M. Kerr	Lecturer in History, Demonstrator in Operative Infirmary
	J.R. Vaughan	Lecturer in Materia Medica, Demonstrator in Operative Infirmary
1951-52	G.W. Caldwell	Demonstrator in Operative Infirmary
	C.E. Dexter	Demonstrator in Operative Infirmary
	E.F. Dexter	Demonstrator in Operative Infirmary
1952-53	J. D. McLean	Professor of Dentistry
	C. Oler	Demonstrator in Adult Dental Clinic
1953-54	G.D. Barrett	Demonstrator in Dentistry
	G.H. Faulkner	Demonstrator in Dentistry
	H.J. MacConnachie	Demonstrator in Dentistry
	W.H. Macneil	Lecturer in Exodontia

*Source: Faculty of Dentistry calendars*

actually to a head until it became a part of the agreement with Dr. James D. McLean that he take over the position of dean of the Faculty.

Dean Bagnall warmly welcomed Dr. McLean in the annual report at the sixty-third annual meeting of the Nova Scotia Dental Association, noting that the Faculty had been most fortunate in persuading Dr. McLean to come to Dalhousie. A University of Toronto graduate who had taken post-graduate work at the University of Minnesota, Dr. McLean served with the Royal Canadian Dental Corps during World War II and had been on the part-time teaching staff of the University of Alberta. He was already known to many of the Dalhousie dental teaching staff through his work with the Dental Corps and the Canadian Dental Association. As Dean Bagnall pointed out, Dr. McLean had already made a name for himself as one of the outstanding members of the dental profession.

The Faculty's annual meeting held on May 5, 1954, was Dr. Bagnall's last in his capacity as dean. Dalhousie President Dr. A.E. Kerr attended the meeting and made a few remarks, commenting on the distinguished service that Dr. Bagnall had given to the school and praising him as an excellent administrator esteemed by his colleagues. The closing remarks were by Dr. McLean. In expressing appreciation for the cordial reception he had received with the generous encouragement of Dean Bagnall, Dr. McLean spoke of his great pleasure on becoming associated with the Faculty and Dalhousie University. He praised Dean Bagnall not only for his contribution to Dalhousie but to dentistry throughout Canada and expressed his pleasure and satisfaction that Dr. Bagnall had consented to continue his service to the Faculty.

Thus, the 1953-54 academic year saw the last report of Dean Bagnall as Dr. J.D. McLean took over his duties. In his last report as dean to the 1954 annual meeting of the Nova Scotia Dental Association, Dean Bagnall wrote that, while the increase in staff and teaching facilities had seemed slow as reported year by year, it had actually been notable. Suggestions that the dental school might be closed were no longer heard and, on the contrary, there was excellent support on the part of the governing body of Dalhousie University for the dental school. Dean Bagnall observed that, although the funds were inadequate, the Faculty could at least feel that Dalhousie would bend over backwards to do all that could be done. He then departed from the usual report and looked back and contrasted the school of 1921 with that of 1954:

The close of the first World War saw a rapid increase in the number of students from the previous average of about four graduates per year, which had been pretty consistent from the first class in 1912 through 1921. The staff was, with one or two exceptions, the same as the group who had started the school in 1908. There were 13 with dental degrees. The physical facilities of the school had been considerably increased several years before when the start of the movement of the University from Carleton St. to Studley took

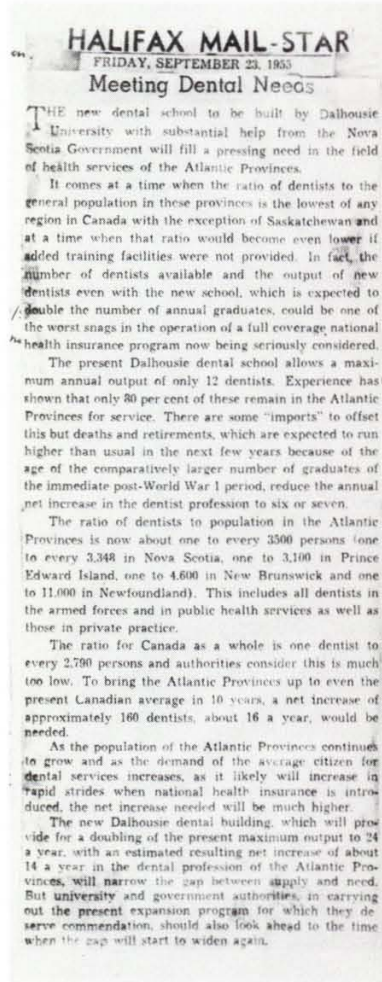
place. Up to that time all the dental classes had been housed in what is now known as the West Infirmary. With the movement to Studley the large East Infirmary and the prosthetic laboratories became available to us. By 1921, the West Infirmary had become fitted out with six chairs across the front and that summer enough extra chairs were purchased to bring it up to its present crowded condition. There were no electric engines and the lighting arrangements were most inadequate. There were a couple of large containers of boiling water for use as sterilizers, but outside of that there was very little equipment. The conditions upstairs were also in much the same state and the older graduates will remember the line of foot lathes which had to be used for grinding and polishing. It is only when we make comparisons such as this that we realize the notable differences between 1921 and 1954. The changes in the staff and courses have been even more marked. The greatest expansion has been in the medical science classes. The 13 dental teachers of 1921 have been more than doubled in the interval to the present 28.<sup>14</sup>

The relocation of the law school to the Studley Campus made some space available in the Forrest Building. Dentistry received a small office on the first floor, near the main entrance, which served as a cloak room for the part-time staff. The second-floor laboratory adjoining the dental laboratory, which was being used mainly for prosthetic work, was made available to the faculty and was converted into class rooms for the first- and second-year students. In spite of these minor improvements, the physical facilities were still hopelessly inadequate.

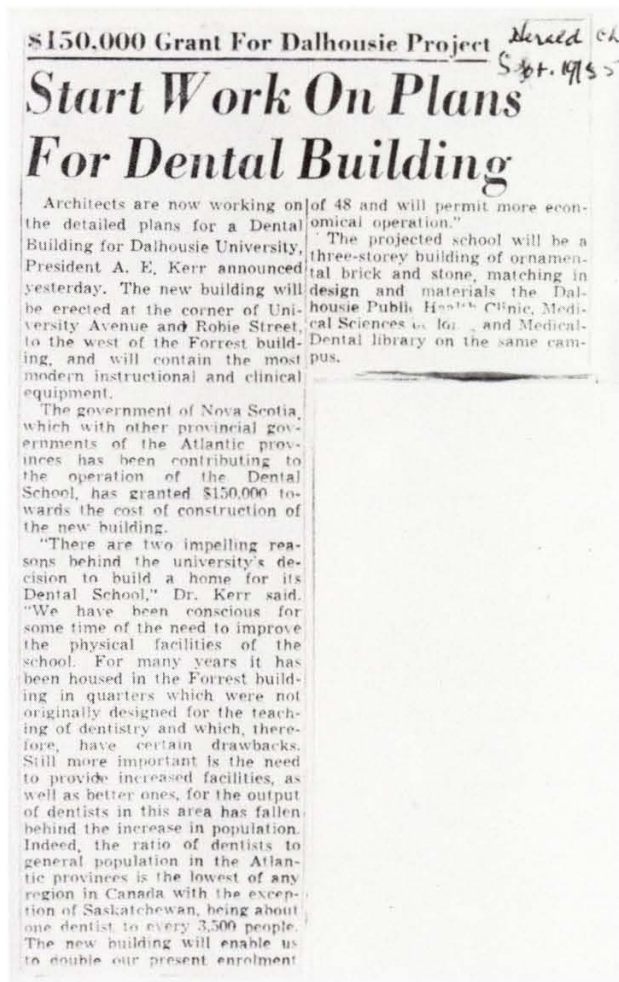
A well co-ordinated newspaper information campaign<sup>15,16</sup> served the Faculty well to inform the public about the need for a new dental building.

The construction of a new dental building started in 1956.

Constructing a dental building was not cheap. In planning the new Dentistry Building, financial support for the project was sought from federal, and provincial governments, and from private sources. As a result of the most heroic efforts for support, the new building was completed, equipped, and occupied in 1958 at a cost of \$1,019,400. Government assistance in this project accounted for less than twenty-five percent of the total cost. The Government of Nova Scotia provided \$150,000, and through Federal Health Grants, an additional \$54,623. The Government of Newfoundland made a grant of \$30,800 for equipment, but no assistance was received from the Governments of New Brunswick and Prince Edward Island. The bulk of the money had to be raised by the University through gifts from foundations and other private donors. The W.K. Kellogg Foundation, which rarely gave money for bricks and mortar, donated \$100,000 because of the tremendous need. A campaign for additional funds was headed by Dr. J. P. McGuigan and Dr. I.K. Lubetsky; it raised more than \$34,000.<sup>17</sup> The cost of the building was, of course, higher than estimated; it always is.



Meeting dental needs



Start work on plans for dental building

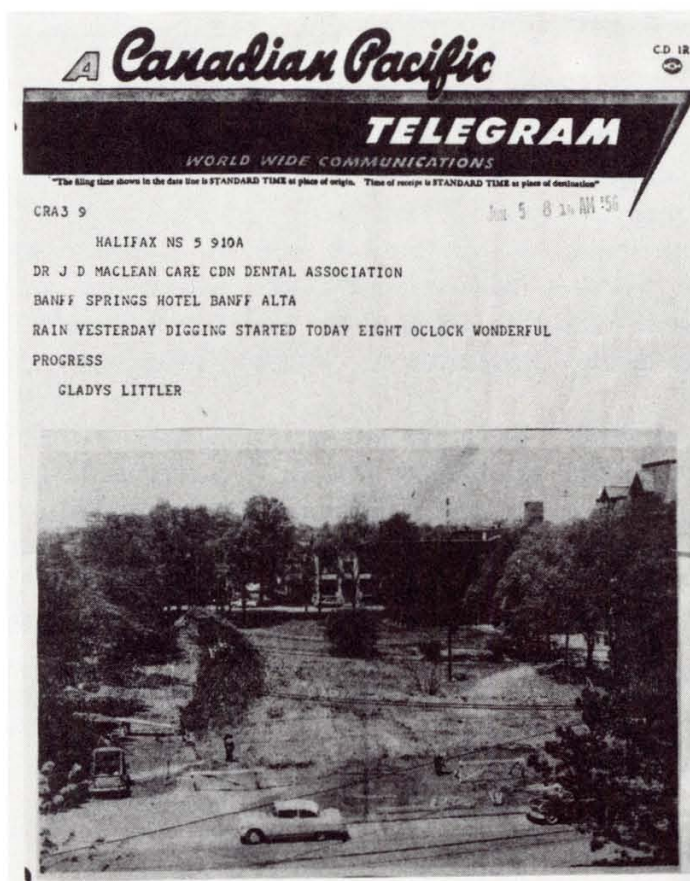
The official opening ceremony was well documented by the photographs and appropriate articles by local Halifax newspapers. On November 2, 1956, there was a special convocation and laying of the cornerstone for the new building by Nova Scotia Lieutenant Governor Alistair Fraser:

CORNERSTONE LAID AT NEW DAL BUILDING

"The enterprise that has brought us together is one of importance to the welfare of these Atlantic Provinces, for it has to do with one aspect of our attempt to spare individual men and women and little children needless pain and to further their general well being" said Dr. A.E. Kerr, president of Dalhousie University in his introductory address at the laying of the cornerstone of the new Dentistry building at the corner of University Avenue and Robie Street Friday afternoon.

Courtesy of The Chronicle-Herald and The Mail Star





Above: The construction begins on the dental building  
 Right: New dental building ready soon

## New Dental Building Ready Soon



DEAN McLEAN

Dental students enrolled at Dalhousie University expect to move into their new quarters over the Christmas holidays, according to latest word from Dean J. D. McLean.

The building, designed by the Halifax firm of J. Philip Dumaresq and Associates, is expected to provide facilities to double the number of students partaking of the dental classes. Outside work on the structure is almost completed. The new building will house two pre-clinical laboratories, smaller labs, a main clinic and four operation rooms for demonstration and other purposes along with many other facilities not available in the present quarters.

Dean McLean estimates that new technical equipment for the building will cost approximately \$200,000 and that student enrollment will be increased to 24 or 25 students per class in comparison of the 12 or 13 enrolled in each of the four years now attending the Dalhousie Dental faculty.

The new facilities, which has a three storey front wing in addition to the two storey general sections of the structure, is expected to provide facilities which will equal any in Canada for undergraduate work.

Courtesy of The Chronicle-Herald and The Mail Star

The official laying of the cornerstone was performed by the Hon. Alistair Fraser, Lieutenant Governor of Nova Scotia, who said: "With profound pride in Dalhousie's past and present accomplishments I declare that here has been well and truly laid a stone to be the cornerstone of a fine new building dedicated to the health and welfare of our people. Into this structure will go our best wishes, our hopes for the future and our sure faith that these hopes will be abundantly realized."<sup>18</sup>

Since 1954, it had been quite evident that provincial grants were not sufficient to enable the Faculty to meet the ever-rising cost of normal operations or of new facilities. Had it not been for grants from the Kellogg Foundation, the delaying of essential staff appointments and an increase in federal grants to universities as a whole, the new dentistry building could not have been built. The finances alone limited the projected construction of the building to that which would accommodate 100 dental and 32 dental hygiene students. The great problem when seeking grants or assistance for the teaching of dentistry was to make the appropriate funding authorities

understand that the cost of teaching dentistry is higher than that of teaching almost any other discipline.

Like most dental schools, the Dalhousie Faculty of Dentistry has always depended heavily upon private practitioners to be instructors and teachers on a part-time basis. It is difficult today to envision that, except for one brief period, there was never more than one full-time faculty member until 1953. The Faculty had a dean emeritus, Dr. J.S. Bagnall, and one full-time staff member, Dr. J.D. McLean. There were two clinic clerks, a secretary and a dental technician for the entire Faculty. Most of the teaching was done by very dedicated, part-time dental practitioners. These dentists were the backbone of the Faculty.

In 1955, for the second time, a survey team of the Canadian Dental Association visited the Faculty and the Faculty was again accredited by the Council on Dental Education. A visit at about the same time by Dr. Philip E. Blackerby, Jr., of the Kellogg Foundation resulted in another grant to the University of approximately \$178,000, extending over four years, for the purpose of supporting "the expansion and further development of the teaching programme and facilities of the Faculty of Dentistry." As a result of this, the dean was in a position to begin to make a considerable increase in the full-time staff.

The first appointment made was to fill the newly created positions of Professor of Oral Diagnosis and Director of the Infirmary (as the clinic was called in those days) in the person of Dr. Robert H. Bingham:

APPOINTED TO FACULTY  
DR. R.H. BINGHAM

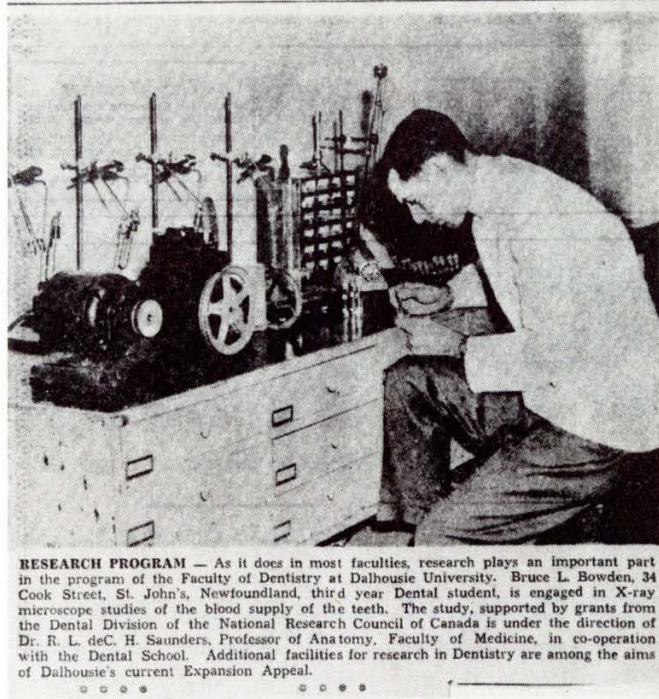
Dr. R.H. Bingham, a native of Moncton and a graduate of Dalhousie University, has been appointed to the Faculty of Dentistry, Dalhousie, as Professor of Oral Diagnosis and Director of the Dental Infirmary, according to an announcement by President A.E. Kerr.

Dr. Bingham, who has been practising in Moncton since the end of the war, assumes his new duties on November 1.

Following his graduation from Dalhousie in 1942, Dr. Bingham went on active service with the Canadian Dental Corps, serving in Canada and in Iceland. During this time he had charge of four separate dental clinics and also attended a postgraduate course in Operative Dentistry. In 1951, he took a course in Oral Cancer Recognition at the Memorial Hospital for Cancer and Allied Diseases in New York and served as an adviser to the Moncton Branch of the New Brunswick Cancer Society. Dr. Bingham has been President of the Moncton Dental Society, the New Brunswick Dental Society, and for the past seven years has been a member of the Council of the latter.<sup>19</sup>

2 THE HALIFAX MAIL-STAR

Wednesday, December 7, 1955



**RESEARCH PROGRAM** — As it does in most faculties, research plays an important part in the program of the Faculty of Dentistry at Dalhousie University. Bruce L. Bowden, 34 Cook Street, St. John's, Newfoundland, third year Dental student, is engaged in X-ray microscope studies of the blood supply of the teeth. The study, supported by grants from the Dental Division of the National Research Council of Canada is under the direction of Dr. R. L. deC. H. Saunders, Professor of Anatomy, Faculty of Medicine, in co-operation with the Dental School. Additional facilities for research in Dentistry are among the aims of Dalhousie's current Expansion Appeal.

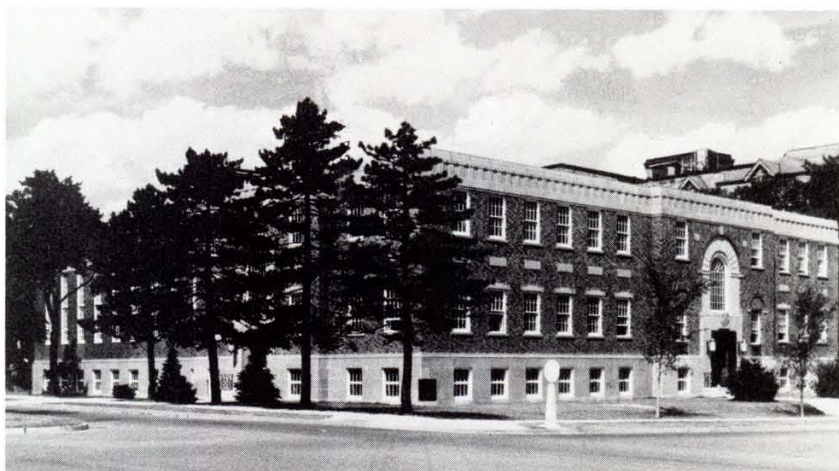
Courtesy of The Chronicle-Herald and The Mail Star

#### Research - 1955

Others were to follow, including the full-time appointment as Associate Professor of Oral Surgery of Dr. A.E. ("Sandy") Hoffman, who returned to Dalhousie after receiving his post-graduate training in the United States.

What was the overall dental milieu in Nova Scotia around the mid 1950s? The report of the Director of Dental Services for the Province of Nova Scotia indicated that the province had three mobile dental clinics, which visited 15 counties, giving 2,588 children in 62 communities dental examinations and as much treatment as was possible. Although parents with a child that required further attention received notices urging them to take the child to their family dentist, there were, in fact, few family dentists, and many regions had none to attend to the children's needs.

A provincial dental hygiene programme was started in July 1957 with three dental hygienists. The programme was started on an experimental basis in three Health Divisions: the Fundy Division, which comprised Annapolis, Kings and Hants Counties; the Cobequid Division, which comprised Colchester and Cumberland Counties; and the Cape Breton Division, which comprised Cape Breton, Richmond, Inverness and Victoria Counties. The service was well received, as was reported after initial tours of the hygienists. The provincial Department of Health was supporting training for four hygienists so that more would become available to the programme. Around 1954 to 1957, fluoridation programmes were under way in Kentville, Halifax and Dartmouth. The population receiving this



*The 1958 dental building*

benefit was 135,000, about one-fifth of the estimated provincial population of 675,000.

In 1956, 47 students were enrolled in the Faculty. During this time, and for some years, a comparatively large number of dental students were subsidized by the Dental Corps and entered the Dental Corps upon graduation.

In May 1956, the Faculty held its first Teacher Training Conference. This was a two-day affair and experts in the field of education from Dalhousie, Ontario College of Education, St. Francis Xavier and Acadia Universities, as well as the assistant superintendents of schools of the Halifax School Commission, attended the programme.

At this time, the new building was well under construction, and the planning was done on the premise that a facility was needed that would provide room for 24 students per class in dentistry and eight students in dental hygiene (although that programme was not yet started) and administrative offices; the expectation at that time was that major research effort and graduate education would be left primarily to the larger dental schools in Canada, such as the University of Toronto. As we shall see later, this philosophy had to be changed for a variety of reasons. The Faculty nevertheless intended to do its share of research work, even with its limited physical facilities.<sup>20</sup>

With the new building nearing completion, plans were made to increase the size of the entering class. As part of the plans that were put into motion to develop a school of dental hygiene, Miss Elizabeth M. Warner, a dental hygiene consultant in the United States Public Health Service's Division of Dental Public Health, surveyed the resources Dalhousie had available for dental hygiene education. A plea was made to the profession to start an active recruitment programme in order to attract well-qualified students to pursue the practice of dentistry. Women were particularly encouraged to apply. The recruitment campaign was successful, as the highest female

registration at Dalhousie dental school was recorded in 1952, with five young women enrolled. "In fact, the total number of women students taking the course this year is as large as the total of female graduates from the past, which numbered five,"<sup>21</sup> wrote the *Mail-Star*.

In 1958, construction was completed and the Faculty occupied its new quarters over the Christmas vacation period. It was the beginning of the J.D. McLean era .

## IV. THE J.D. MCLEAN YEARS

*The first purpose of a Faculty of Dentistry is commonly and correctly interpreted as the preparation of dental students to practice their profession and perform through it an important service to the physical health and well-being of their patients. To that first purpose, however, there attaches a second, which cannot be separated from it, namely the development in students of inquiring minds, the stimulation of their scientific curiosity, and the encouragement of hospitality on their part to all new knowledge that may relate to their specialty.*

A.E. Kerr, *President and Vice-Chancellor, Dalhousie University.*<sup>1</sup>

### DESCRIPTION OF AND ACTIVITIES IN THE NEW DENTISTRY BUILDING

With its occupation of the new building, the Faculty felt very fortunate indeed, particularly when it compared its new facilities to the antiquated, inadequate and crowded facilities of the Forrest Building. Under the dynamic leadership of Dean McLean, a start on the development of the curriculum and clinical practice experience for the students took place unhampered by inadequate space or equipment. Little did anyone realize that this new building—with its excellent classroom, clinic, and laboratory facilities, incorporating the best features for a high level of dental education—would soon be outgrown. But for the time being, the excellent physical layout of the building was appreciated by all.

On the first level were large preclinical teaching laboratories with support laboratories, together with a student lounge and locker and washroom facilities. There was also space that in a few years became a research laboratory and an oral pathology laboratory and even additional space that was eventually converted to a dark room, audio-visual space and a dental hygiene laboratory. An area was provided for dental stores, which eventually was divided to include equipment and instrument maintenance and repairs.

The second level consisted of an impressive clinic of separate cubicles that were equipped so that the 24 dental students in each of the third and fourth years could share a cubicle and store their instruments separately.



*Third-year dentistry and second-year dental hygiene students in the new clinic,  
February 4, 1965*

There was a similar space of eight cubicles that would similarly accommodate 16 dental hygiene students once the dental hygiene programme was established. There was also a clinical support laboratory where students could have individual bench space with an adjacent production laboratory where dental technicians would work and help the students with difficult technical problems.

Adjacent to the clinic were a waiting room (which, however, although relatively large, nevertheless became quite crowded on occasion,) a reception desk, a sterilizing and clinic support area, and radiology and diagnosis facilities. Four side rooms where demonstrations and special clinics could be held were provided. Oral Surgery had a suite of rooms where nitrous oxide and oxygen anaesthesia were administered by an anaesthetist from Camp Hill and later from the Children's Hospital. These new facilities permitted the extraction infirmary to be moved from the Public Health Clinic into the dentistry building, gave oral surgeons (who had just come on the full-time staff) the opportunity to give demonstrations to students, and allowed the fourth-year students to book space for the more difficult surgical procedures. The other specialty, orthodontics, also had a room which contained a cephalometric X-ray machine. Over the next few years, Dalhousie became the first dental school in North America to teach removable orthodontic appliance technics to undergraduate dental students. This programme was developed by Dr. P.S. Christie, who had toured the orthodontic clinics in Britain and the Netherlands in order to become proficient in removable appliance procedures.

The third level consisted of a lecture room, a seminar room (which

doubled as a dental museum), a faculty lounge and administrative and faculty offices, and on the roof was an animal house for research animals.

Growth in the number of dental students was unexpectedly slow. Not until 1964, when the Faculty had 88 dental students and 17 dental hygiene students enrolled, was the capacity of 25 first-year students reached. Third- and fourth-year students were in the clinic most of the time, with a few students on rotation in oral diagnosis, radiology, oral surgery, and orthodontics. Additionally, there were medical rounds at the Camp Hill Hospital. This kept the meagre teaching staff extremely busy. But because of the small classes and small faculty, an admirable relationship with students and other health professionals developed very quickly. This is exemplified by the fact that the School of Pharmacy, through the good offices of its director, produced many unique drugs and compounds for use in the dental clinic. The patients in the dental clinic came from the same sources as today. In addition, patients from the School for the Blind and from the City Mental Hospital (on the site of what is now the ground-level parking lot at the I.W.K. Hospital for Children) provided students with additional valuable experience.

A specific number of clinical requirements were in vogue during this period, and clinical evaluation of students' performance was a universal problem throughout the continent. (It still poses a problem to dental educators in the 1990s.) Many articles had begun to appear in the *Journal of Dental Education* regarding the most appropriate way in which to evaluate students' performance both in the clinic and elsewhere. A surprising number of treatments per student were performed in the clinic. For example, in 1961-62 the average number of procedures per student was as follows:

	Junior Class	Senior Class
Extractions	76.7	15.4
Amalgams	44.0	44.2
Resins & silicates	24.9	21.46
Gold inlays & foils	3.1	17.73
Crown & bridge units	4.5	8.4
Complete & partial denture prostheses	7.00	6.53

With the new clinics, there was some question as to what would emerge as the best equipment. Portable air rotors from various manufacturers were installed in order to get first-hand knowledge as to the best product for students' requirements. Some years later, air rotors were installed in all cubicles. During this period, a great deal of attention was being paid to various types of analgesia that would help reduce the anxiety of those patients who had difficulty in persuading themselves that a dental chair was a pleasant place in which to spend an hour or so (or a whole morning



or afternoon). A stereophonic white-noise-producing machine had been purchased which could be controlled by the patient and when things got in his opinion a bit unbearable, he could increase the level of white noise and thus theoretically reduce his discomfort. Some students did projects using this equipment and reported that it was effective in reducing the pain perception of many patients. Others did not share their confrères' enthusiasm. Their findings were contradictory and eventually this experiment faded into the annals of dental history with its unfulfilled promises and hopes.

#### SUCCESSFUL STAFF RECRUITMENT ALLOWS DEVELOPMENT OF TEACHING PROGRAMMES

From 1958, when the Faculty moved into the new facility, until about 1965 the first priority was to try to build up the full-time teaching staff with personnel qualified in the various disciplines. This was not an easy task: all of the dental schools in North America were doing the same thing and were competing for the services of dental graduates who were reluctant nevertheless to take up a teaching career because salaries in universities could not compare with income from private practice. (This aspect of a dental teaching career has yet to be corrected or solved and still poses a challenge in the 1990s.) There were not many Canadian dentists with specialty training in the various disciplines who could be attracted into a teaching career, and many of the prospective recruits had little knowledge of the Maritimes and Dalhousie University. Indeed, as late as 1963, the only specialties recognized by the Board of the Nova Scotia Dental Association were orthodontics, oral surgery and periodontics, and in that year only four orthodontists, three oral surgeons, and one periodontist were practicing in Nova Scotia. Not until later were such other specialties as paedodontics, prosthodontics and oral radiology recognized.

At the same time, as already mentioned, the greatest concern in the development of the Faculty of Dentistry was to recruit full-time staff well qualified to teach the various disciplines, to review and expand the curriculum, and to take advantage of the clinic space to provide the best clinical experience for students. The history of the next few years records a number of additions and changes in academic personnel in various disciplines. Some of the dentists from the area left practice and furthered their dental education in graduate schools and returned to Dalhousie; some of the recent graduates were helped by the school, attended graduate institutions and returned; and some who already had graduate or post-graduate qualifications were attracted from other schools and countries to join the full-time teaching staff. With various degrees of success the school was able to secure staff for a great number of the disciplines that comprised the dental curriculum. Some came and stayed, others left. All in all, Dean McLean's efforts to build his staff were successful.

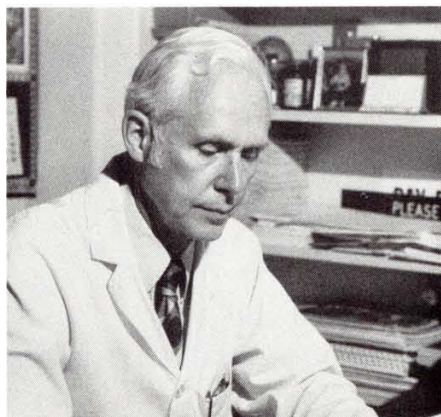
## NEW FACULTY APPOINTMENTS 1954-1965

1954-55	A.S. Frank	Demonstrator in Adult Dental Clinic
	D.E. MacLachlan	Demonstrator in Dentistry
1955-56	R.H. Bingham	Professor of Oral Diagnosis and Director of the Dental Infirmary
1958-59	A.E. Hoffman	Assoc. Professor of Oral Surgery
	A.S. Wenning	Lecturer in General Anaesthesia
1959-60	J. Findlay	Lecturer in Periodontics
1960-61	D.A. Eisner	Demonstrator in Orthodontics
	T.E. Spracklin	Lecturer in Orthodontics
1961-62	R. Epstein	Demonstrator in Paedodontics
	J.R. Fraser	Demonstrator in Fixed Partial Denture Prosthodontics
	R.E. Jordan	Lecturer in Dentistry
	A.T. Roger	Lecturer in Oral Surgery
1962-63	D.M.J. Bonang	Demonstrator in Dental Anatomy
	F.W. Lovely	Asst. Professor of Oral Surgery
	R.G. Stephens	Assoc. Professor of Periodontics
1963-64	I.C. Bennett	Assoc. Professor of Paedodontics
	A.A. Drysdale	Lecturer in General Anaesthesia
1964-65	A.K. Das	Assoc. Professor of Oral Pathology
	A.W. Eastwood	Teaching Fellow
	W.C. King	Lecturer in Dentistry
	E.S. Morrison	Instructor in Dentistry
	W.A. Murray	Lecturer in Medicine

*Source: Faculty of Dentistry calendars*

The first of the new full-time positions to be filled was that of Professor of Oral Diagnosis and Director of the Infirmary. The Faculty was most fortunate in securing the services of Dr. Robert H. Bingham to fill this important position. A native of Moncton, New Brunswick, who took his undergraduate degree from Mount Allison University before enrolling in the dental school at Dalhousie, Dr. Bingham had been in general practice for 13 years and had been president of the New Brunswick Dental Association before joining the Faculty. He became one of the most respected and beloved teachers of the Faculty. For many years to come, he would contribute greatly to the Faculty (as secretary of the Faculty, assistant dean, and acting dean) and the University (as member of the Senate).

Col. A.T. Roger, who joined the Faculty in the Division of Oral Surgery, later became the first full-time Clinical Director and his office became the court of last appeal or help for many a student and patient alike. His calm, efficient manner was invaluable when soothing ruffled feathers and his encouraging smile was needed on many occasions to overcome minor or



*Dr. A.T. Roger*

major crises which would occasionally happen on the clinical floor.

Because it took some time to prepare teachers, when Dr. Kenneth M. Kerr of Bedford joined the Faculty on a full-time basis in the field of prosthetic dentistry (after having been a member of the part-time staff for a number of years), he was granted a year's leave of absence by the University and, with the assistance of a Studentship Grant from the Research Committee of the

Canadian Dental Association, proceeded on a year of postgraduate study at Ohio State University under Dr. Carl Boucher, "the grand old man" of prosthetic dentistry. (Dr. Kerr would himself become "the grand old man" of prosthetic dentistry of Atlantic Canada.)

In this period, efforts were constantly being made to improve all aspects of undergraduate teaching. The Faculty received its first grant from the National Research Council (for a research project in oral surgery) and continuing education courses came to be offered on at least a yearly basis. In 1961, the School of Dental Hygiene was started, with Ms. Janet Burnham as its first director. In the winter of the 1958-59 academic year, faculty devoted staff meetings to a serious and detailed study of curriculum. It was felt that such a study would familiarize all members of the Faculty with the teaching in each department, better correlate basic science subjects to clinical subjects, eliminate duplication of effort, and ensure the best balance in time available between various courses. A timetable was drawn up and each faculty member was required to present his course, lecture by lecture, seminar and laboratory or clinical exercises. Mimeographed forms of each course outline were distributed, and discussion on pertinent points with recommendations for possible changes were deliberated.

Health care legislation was on the way both federally and provincially and this, although not directed to dentistry, would initially encompass oral surgical procedures. Later, the Children's Dental Health Care programme was inaugurated. This resulted in busy times both for the Faculty and for the University—preparing and presenting briefs to the Royal Commission on Health Services.

Paedodontics, as a recognized discipline, became a department of dentistry at the Children's Hospital when a full-time appointment was made through the Faculty of Dentistry. Before this, interested practitioners gave time and service to the needy children in this hospital.

Partly influenced by the study being carried out by the Royal Commission on Health Services and partly because of a natural progression,

much attention was given to the utilization of dental hygienists and dental assistants in general dental practice. Greater emphasis was therefore placed on the dental school's role in training future dentists to utilize these and other auxiliaries effectively.

During this period the student recruitment efforts began to pay off and the Faculty was getting more and more applicants for admission into the DDS programme. Applications for admission into dental hygiene were not so numerous, however, even though practically all of Dalhousie's early graduates in the dental hygiene programme were able to find immediate employment in the Atlantic region, either in the four provincial departments of health or in private practice.

The table clinic presentations by dentistry students were initiated in the 1961-62 academic year. The next year, the school followed a nationwide trend and dropped the requirement that dentistry students write a thesis to obtain a DDS degree. (This decision is still regretted by many educators who think it inappropriate that one should be able to obtain a doctoral degree without writing a thesis.) This same year, a course for dental assistants was sponsored by the Halifax County Dental Society and was given with the cooperation of the Faculty of Dentistry; successful assistants were awarded a certificate by the Nova Scotia Dental Association. A Gold Foil Study Club was established, and its membership included many of the operative staff and a number of interested dentists in the Halifax/Dartmouth area.

In January 1962, Dr. J.S. Bagnall, who had been appointed dean emeritus of the Faculty in 1954, died, and at Dean McLean's request, Dr. W.G. Dawson prepared a tribute to his memory to be appended to the Faculty minutes:

DOCTOR J. STANLEY BAGNALL  
AN APPRECIATION.

We were all saddened in January when our Dean Emeritus J. Stanley Bagnall passed on. "Stan" as he was known to his friends - and they were legion - was greatly loved. A quiet unobtrusive man whose long and useful life was spent working for the betterment of his profession. Following his service overseas in World War I as an Artillery Officer he was graduated from Dalhousie, winner of the gold medal, in 1921. That same year he became the first full-time teacher in the dental school. "Stan" served under the first dean Dr. Frank Woodbury and Deans Ryan, Thomson and Woodbury, served as dean 1947-1954 until succeeded by Dean McLean, when he was appointed Dean Emeritus.

While his first interest was always the dental school "Stan" did a great deal toward the development of organized dentistry on both the local and national level. He was a past president of the NSDA and served as secretary of that body for eighteen years. In addition he was secretary of the CDA from 1924 until 1942 and

served on many committees of that organization as well as in the dental section, National Research Council and the International Dental Research Society. He was the author of many scientific papers that have appeared in dental journals as well as an extensive monograph "Bibliography on Caries Research" published by the National Research Council. The son of a dentist and the father of a dentist, loved and respected by his associates, the great contribution he made to his chosen profession will not soon be forgotten.<sup>2</sup>

Dean Bagnall's son, Stanley G., obtained a Dalhousie DDS in 1945 and served in the Royal Canadian Dental Corps in the United Kingdom, Canada and Korea. Subsequent to pursuing studies in prosthodontics at the U.S. Naval Dental School, Bethesda, Maryland, in 1956, and at Ann Arbor, Michigan, in 1958, Dr. S.G. Bagnall became instructor in prosthetic dentistry at the Royal Canadian Dental Corps School in Ontario, from 1958 to 1960, and later chief instructor 1960-62. For the next four years Colonel Bagnall served on the staff of the Director General of Dental Services. At the time of his part-time appointment to the Faculty in 1967, he was regional Dental Officer in the Maritime Region and was responsible for all dental treatment provided to the armed forces in Newfoundland and the other Atlantic provinces.

Success in recruiting staff made it possible to give responsibility for the major teaching disciplines to qualified full-time teachers. Therefore, it was feasible to look into all course offerings in greater depth than had been possible in the past, and in 1962 a Curriculum Committee of Faculty was established. Having considered courses, teaching and clinical practice, it was necessary to look at the administration of the growing Faculty as well. As a result, standing committees of the Faculty were established and an administrative assistant to the Dean was hired in 1963. In that same year a reception for new students was initiated, which in later years expanded into a comprehensive orientation week with many social activities included to make the incoming students feel welcome.

In 1963, Dr. A.E. Kerr, who had worked very hard to make the first new dental building possible, retired as president of Dalhousie University. He was succeeded by Dr. Henry D. Hicks, who would play a similar supportive role in bringing to fruition later expansion. Dean McLean perceived the need for upgrading dental education and gave leadership in the development and the expansion of both the teaching process and the physical expansion of the Faculty. Although it was not until after Dr. McLean stepped down as dean that expansion took place, the planning process was started under his deanship years.

After 1965, recruitment of staff progressed, and by 1967 Dean McLean had the support of 15 full-time academic staff members, with 20 additional full-time personnel responsible for administration, technical services and dental assistance. Positions in many areas—operative dentistry,

## NEW FACULTY APPOINTMENTS 1966-1976

1965-66	G.M.D. Conrad	Instructor in Dentistry
	T.D. Ingham	Instructor in Dentistry
	D.C.T. Macintosh	Instructor in Dentistry
1966-67	J.G. Blackmer	Lecturer in Public Health
	J.A. Cox	Teaching Fellow
	P.L. Faulkner	Instructor in Dentistry
	J.E. Grasso	Asst. Professor of Prosthodontics
	N.J. Layton	Instructor in Dentistry
	J.P. Sapp	Teaching Fellow
	J.P. Thomas	Assoc. Professor of Paedodontics
1967-68	A.P. Angelopoulos	Asst. Professor of Oral Pathology
	S.G. Bagnall	Instructor in Dentistry
	W.K. Dickie	Instructor in Dentistry
	A.J. Gwinnett	Asst. Professor of Dentistry
1968-69	D.V. Chaytor	Asst. Professor of Prosthodontics
	E.M.C. Franklin	Asst. Professor of Operative Dentistry
	A.E. MacLeod	Asst. Professor of Dentistry
	S.R. Rao	Asst. Professor of Paedodontics
1969-70	A.K. Bhardwaj	Instructor in Oral Surgery
	T.H. Blackmore	Instructor in Radiology
	J.M. Gourley	Asst. Professor of Dental Materials
	T.H. Ibrahim	Instructor in Dentistry
	E.F. Kirk	Instructor in Dentistry
	D.S. Precious	Teaching Fellow
	V.B. Shaffner	Teaching Fellow
	T.A.W. Taylor	Instructor in Dentistry
	G.L. Terris	Asst. Professor of Paedodontics
	1970-71	H.M. Amos
N.H. Andrews		Instructor in Periodontics
D.P. Cunningham		Asst. Professor of Paedodontics
E.J. Hannigan		Asst. Professor of Periodontics
B. Harsanyi		Asst. Professor of Oral Pathology
B.P. Kearney		Assoc. Professor of Community Dentistry
P.M. Pronych		Asst. Professor of Paedodontics
D.A. Stewart		Instructor in Dentistry
A.N. Swanzey		Instructor in Dentistry
W.G. Young		Assoc. Professor of Oral Pathology
1971-72	A.G. Andrews	Lecturer in Oral Surgery
	R.A. Connor	Assoc. Professor of Pediatric & Community Dentistry
	G.M. Jensen	Asst. Professor of Orthodontics
	R.M. MacDonald	Instructor in Operative Dentistry
	A.B. Stewart	Instructor in Dentistry

1972-73	S. Brayton	Asst. Professor of Endodontics
	J.S. Christie	Instructor in Operative Dentistry
	O. Sykora	Assoc. Professor of Prosthodontics
1973-74	D.C. Gordon	Asst. Professor of Operative Dentistry
	J.A. Hall	Teaching Fellow
	R.E. Hoar	Instructor in Dentistry
	M. Kronis	Asst. Professor of Dental Public Health
	B. Lilienthal	Professor of Oral Biology
	D.J. Murphy	Asst. Professor of Oral Surgery
	P.J. Porter	Lecturer in Orthodontics
1974-75	T.A. Wintermans	Instructor in Restorative Dentistry
	A.K. ElGeneidy	Asst. Professor of Oral Biology
	R.A. Fortier	Instructor in Pedodontics
1975-76	E.J. Sutow	Lecturer in Dental Materials
	R.A. Bannerman	Instructor in Operative Dentistry
	S.E. Corkum	Lecturer in Preventive Dentistry
	G.S. Ferguson	Instructor in Operative Dentistry
	P. Grant	Lecturer in Radiology
	H.J. Hann	Assoc. Professor of Community Dentistry
	G.H. Hinrichsen	Assoc. Professor of Orthodontics
	D.W. Jones	Assoc. Professor of Dental Materials Science
	J.F. Landymore	Instructor in Oral Pathology
	R.W. Pentz	Instructor in Operative Dentistry
W.I. Vogan	Assoc. Professor of Periodontics	
G.S. Zwicker	Instructor in Operative Dentistry	

*Source: Faculty of Dentistry calendars*

periodontics, oral pathology, orthodontics, dental public health, oral histology, prosthodontics and paedodontics—were filled with well-qualified full-time staff. Nevertheless, like most dental schools in the past, the Faculty (which only briefly had more than one full-time faculty member before 1953) continued to depend heavily upon local practitioners to serve as part-time instructors and teachers: in 1967 there were 31 part-time faculty members, eight of them appointed to half-time teaching. Indeed, it was in recognition of Dr. Haslett Saunders Crosby's long, faithful and excellent service to the Faculty as a part-time teacher—member of the Faculty since 1924 and Professor of Operative Dentistry from 1951 to 1966—that the University's Board of Governors supported the Faculty's recommendation by naming Dr. Crosby Professor Emeritus of Dentistry. It certainly was not the financial remuneration which would attract the part-time faculty. As late as 1962 the basic honorarium was \$15/half day and \$7/lecture for a 33 week period.

## PLANNING FOR EXPANSION OF THE DENTISTRY BUILDING BEGINS

It had been recognized from the beginning that the then-new dental building was, despite its modernity, an interim development dictated by the availability of funding. All had acknowledged that an extension would have to be added later; that the need for it came as soon as it did was unexpected by many.

The Faculty determined that if the school was to improve—to be able to attract and retain staff and to train students in the dental specialties locally, with the intent that they would stay in the region to practice—it was necessary to rethink its original philosophy, which was based on the idea that bigger and more affluent dental schools in Canada should be the source of graduate programmes and major research efforts. A formal application was made to the Board of Governors of the University for expansion of the dental school in order to accommodate classes of 60-64 dental students and 30 dental hygiene students, as well as to provide space for research and graduate training.

Financing, of course, was the perennial problem. The first serious financial crisis the dental school faced occurred after World War II when, with the return of the veterans, greater demands were placed on the Faculty; the costs were spiralling, needs for new staff and equipment were great and the provincial grants were very small. In fact, not until 1947 did the remaining Atlantic provinces first recognize their responsibility for supporting dental education in their region. From 1947 to 1954, the provincial grants remained at the level of \$115,000. In 1954, it became obvious that a substantial increase in support from the governments of the four provinces was required because of the existing deficits and the fact that the Faculty would have to improve very markedly to meet the requirements of accrediting agencies. Without increased support it would have been impossible to obtain staff or provide an adequate education to the dentistry students of Atlantic Canada. The provinces were requested to provide increases in funding allocated on the basis of the average number of students in attendance from the respective provinces over the previous five-year period. Nova Scotia was asked to bear a higher proportion than the other three provinces in recognition of certain incidental benefits to the province in which the school is located. Some increases in funding were granted, which permitted some, but not all, of the necessary improvements to the school.

In 1963, approval was given for the construction of the Sir Charles Tupper Medical Building. Since dental students at Dalhousie have traditionally taken the basic science courses in the medical faculty—thus making maximum use of the one facility by the two faculties—the decision to build the Sir Charles Tupper Building profoundly influenced the Faculty of Dentistry. The new medical building was planned to allow the dental faculty space for a substantial increase in each of the first two years. Thus,



the way was opened for it to plan a much-needed expansion in order to serve the Atlantic region's dental manpower needs more adequately.

As early as 1964, active planning by the Faculty was begun. In the meantime, the Faculty was getting more qualified applicants for admission into the programme than it had space for. The increase in full-time staff and in the number of applicants made it apparent that the Faculty had begun to outgrow its current accommodation. It had to renovate the space, add to it, and acquire classrooms, laboratories and office space in the old Forrest Building and in adjacent houses.

This led to a formal request to the Board of Governors for expansion. At the same time, the federal government established a Health Resource Fund of \$500,000,000 and additional monies were set aside for specific regions where health resource facilities were lacking. This was prompted by the federal and provincial governments enacting health care legislation. The first concern was hospitalization, and hospitals were inadequate to meet public demand for this service. Dean McLean was a member of the Ad hoc Technical Advisory Committee to make recommendations to the Nova Scotia Minister of Health for expenditures from this fund.

In 1966, the Board of Governors gave the Faculty approval to commence active planning. From 1968 until 1969, the Building Committee, chaired by Dr. Robert Bingham, met weekly with staff and with building consultants, to define the requirements for a dental facility that would serve the regional needs for dental education in Atlantic Canada well into the next century. Some members of the Committee had the opportunity to evaluate the many dental facilities in the Scandinavian countries, the United Kingdom and all over North America. This resulted in the gathering of a great store of knowledge about dental health education and health care delivery systems in many parts of the world. This knowledge became invaluable in planning a new school at a time when dental education, like all health education, was experiencing great change because of the impact of new discoveries, more efficient equipment, the use of auxiliaries, greater public awareness and demand for more comprehensive dental treatment, and the increasing government involvement in the delivery of health care to the people.

Because of the changing government role in providing for payment for health care, Canadian universities were taking the stand that the provision of the facilities to train people to deliver health care is now the responsibility of governments. Consequently, the Faculty of Dentistry at Dalhousie applied for and received a Health Resource Fund grant to undertake the functional planning study. Before such planning could begin, it was necessary to estimate the dental manpower needs of the region, on the basis of which entering class sizes for the dental and dental hygiene programmes could be set. It is of interest to note that as late as 1966 three counties in Nova Scotia—Guysborough, Richmond and Victoria, with a total population of 32,049—had no dentist. Four other counties—Cumberland, Hants, Pictou and Shelburne counties—had dentist-to-population ratios

worse than 1:10,000. To gain as much knowledge as was possible, a Dental Manpower Needs and Resources seminar was organized under the health departments and dental societies of Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland, with the co-operation of the Faculty of Dentistry and Dalhousie's Institute of Public Affairs. As a result of the statistical evidence of the projected dental-manpower needs of Atlantic Canada that was presented at this meeting, the desirability of the Faculty's being able to accommodate 64 dentistry students and 64 dental hygiene students per year was agreed upon. (Future developments—the unexpected slowing in population growth in the region combined with the profound influence of preventive oral health on the delivery of dental services and on the “busyness” of dental practices—made this proposed increase in the size of the Faculty, which appeared reasonable at that time, too ambitious. In later years, this expansion of the classes became a contentious issue between the dental associations in the Atlantic region and the Faculty administration.)

#### CHANGES IN THE DELIVERY OF DENTAL SERVICES TAKE PLACE

While all these developments were slowly taking place, other equally important events happened which affected the delivery of dental services in Atlantic Canada.

In Nova Scotia, 16 dental hygienists were now employed and four mobile dental units were being used by the Department of Health to provide dental care for children and to carry out a programme of dental education for the people.

Three \$1,000 scholarships for dental students were established: one on admission to first year and one each on admission to second and third years. Senior matriculation requirements for admission into Dalhousie Arts and Science programmes were established. This affected the admission policy into both dentistry and dental hygiene. The dental aptitude testing programme became compulsory for students applying for admission into Dalhousie's dentistry programme. Dental hygiene legislation and amendments to the legislation were of great concern to the Dental Board and the Nova Scotia Dental Association. An advisory committee of the Faculty was established to explore the manner in which dental hygiene education could be modified to broaden the scope of activities of the dental hygienist.

The freshmen class in dentistry was up to its capacity of 24 students and this was increased to 27 for a couple of years after the Tupper Building opened in 1967. In 1966, the total enrollment reached an all-time high of 99 students, with 26 students graduating. Of the 27 first-year students, 23 were from the Atlantic region.

In 1966, the Association of Canadian Faculties of Dentistry was established, and it paralleled the organization of the American Association

of Dental Schools in the United States. Dalhousie's Faculty of Dentistry was still trying to improve its administrative and teaching structure and in 1966 a departmental structure was established (before, the University administration had treated the Faculty as one department). The departments established were Oral Biology, Oral Medicine and Oral Surgery, Restorative Dentistry, and Pediatric and Community Dentistry. At the same time, student representation on various Faculty committees was extended. As well, an assistant dean, in the person of Dr. R.H. Bingham, was appointed.

In the late 1960s and early 1970s there were many changes to the programmes the Faculty offered: the Tatamagouche project tested the feasibility of providing students with meaningful field-service experiences. Special summer programmes were held to train graduate dental hygienists in extended duties, the graduate programme in oral surgery was initiated, and continuing education courses began to be offered outside the dental building. To maintain and improve the quality of teaching, the Faculty, which in 1970 had grown to 24 full-time and 30 part-time staff members, conducted a two-day in-training session for the teaching staff during the school term and began the regular noon-hour faculty-development sessions that were to become an integral feature of in-service training for the Faculty.

As a result of review of the dental curriculum, virtually all didactic courses were moved into first, second and third years, to allow the fourth-year programme to include elective subjects and to put more emphasis on practice management and comprehensive dentistry, the so-called total patient care concept. The TEAM approach to the practice of dentistry was developed as an effort to orient dental students to the most effective use of auxiliaries in their practice. In 1973, Post College Assembly was initiated in conjunction with the dental convocation, in an effort to begin impressing upon new graduates the need for continuing education.

In 1970, the Nova Scotia Council on Health established a Dental Task Force, which investigated the whole area of dental health care for the citizens of Nova Scotia. Before its final report was tabled in 1972, the Children's Dental Health Care programme was established. In 1972, the Minister of Health for Nova Scotia announced subsidy grants for undergraduate dental students and location grants for those who had graduated, to encourage dentistry as a career and to alleviate the maldistribution of dental personnel in the province. However, this programme did not accomplish its objective and was discontinued in a very few years.

As a result of increases in staff size, teaching and administration had to be in many locations, some of which were adjacent to the dentistry building. For example, the Faculty had to acquire temporary accommodations for the Division of Oral Pathology and the office of the School of Dental Hygiene in the Forrest Building. Even with this expedient, space limitations prevented the Faculty from properly developing certain new teaching concepts and

from adequately housing other activities. The Faculty, as well as the provincial dental bodies, were still pressing the provincial and federal governments to fund the expansion. The time during which monies could have been received from the Health Resource Fund for this purpose was nearly past; had Dalhousie not obtained approval soon, it would have been difficult to comply with the terms of the funding that required that projects had to be completed by December 31, 1980.

#### ESTABLISHING THE OBJECTIVES FOR THE FACULTY IN THE PROJECTED EXPANDED FACILITIES

While all these activities took place, the Faculty worked to determine the particular dental needs of the Atlantic region, by studying past and present dental educational systems and the changes that were then taking place world-wide in dentistry. On the basis of predictions of the character of dental practice and education in the future, the Faculty could more easily plan a curriculum suitable to future graduates' needs and then plan a building best suited to allowing it to implement the developed philosophy and provide for the objectives which would lead into the next century. This approach resulted in two documents: one, issued in 1967, related to the curriculum necessary; the other, produced in 1969, incorporated schematic plans of the resultant building.

Let us highlight some of the ideas based on the educational philosophy Dalhousie's Faculty of Dentistry devoted to the creation of a sound academic environment. It was agreed that the school's educational programme should reflect the advances of science and place emphasis on the most pressing problems concerned with the oral health of society. Thus, it would be appropriate that students be given field experience outside the university environment, in order that they might comprehend the dentist's role in relation to the community's socioeconomic needs. This experience might be offered in communities lacking even minimal dental service, so students would provide significant oral care to those communities. Not only should more students be trained to be dentists, but dental education should include the comprehensive use of the various auxiliaries. And increasing the productivity of dentists and providing for wider and improved utilization of dental assistants would be the most promising solution to the dental health problems of Atlantic Canada. It was stressed that the Faculty must provide frequent and varied opportunities for continuing education in dentistry at the graduate, post-graduate and refresher course levels. And finally that an educational institution must actively engage in research in order to add to the "sum of knowledge" and not merely pass existing data on to its students, or function purely as a training centre.

The site of the new building was originally planned to be on the south side of University Avenue, between Henry and Seymour streets. This site

was eventually abandoned and a decision was taken to enlarge the existing dentistry building. The plans were developed for facilities of accepting and entering classes of 64 dentistry students, 64 dental hygiene students and 15 graduate students in dentistry, based on the projected (in retrospect, too optimistic) needs for the dental manpower for the Atlantic area. Research facilities capable of supporting research activity in all fields of dentistry was also projected.

Fairly early in its deliberations about the new facility and the curriculum that would be taught there, the Planning Committee considered a new, radical approach. Instead of the traditional university education that is pursued from September until May, the Committee believed that a four-quarter system, consisting of 44 weeks of instruction continuing throughout the calendar year, with appropriate breaks at the end of each quarter, would better reflect the concepts of learning process, while making better use of the new physical plant. For various reasons, the Committee abandoned the proposal for a four-quarter system. One reason was that it would have been necessary to have a fund established with which to assist students who would have been deprived of summer-employment opportunities. Also, faculty members' reactions to the establishment of the four-quarter system was unenthusiastic.

#### OBJECTIVES OF THE FACULTY OF DENTISTRY

Dalhousie University, because of its geographical location and its ideals, has a particular concern for the health and welfare of the population of New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island, notwithstanding an overall concern on the national level as well. The University as a central unit for the education of health personnel for the four Atlantic provinces has been making progress in meeting its responsibilities as rapidly as existing facilities and limited financial support would permit. With this concern in mind, the Faculty of Dentistry developed its general philosophy:

1. To educate men and women at the professional level to administer principally to the dental health needs of the people of the Atlantic provinces.
2. To provide programmes in post-graduate, graduate and continuing education.
3. To establish and develop research programmes.
4. To continually develop the curriculum to assist the student to acquire a fundamental knowledge and understanding of sciences, basic and relevant to clinical dentistry.
5. To provide for flexibility in the curriculum and the facility so the developments in dental education can be incorporated in the programme.

6. To provide for flexibility in the curriculum of the dental hygiene programme so as to make provision for expansion of instruction as additional duties may be delegated.
7. To ensure that instruction in the technical phases of laboratory and clinical dentistry will provide the graduate with an adequate level of competence to practice his profession.
8. To stress in clinical teaching, the fundamental relationship of the basic sciences to the clinical aspects of dentistry.
9. To institute programmes which will develop in the student a commitment to the social responsibility of the professional man as part of the health services team.
10. To provide instruction and practice in the efficient use of auxiliaries and to co-operate in the development of programmes for the training of technical assistants.

The ideas proposed then were sound and were eventually adopted when the major expansion of the dental school took place. Indeed, many of these basic ideas, developed here at Dalhousie's Faculty of Dentistry under the deanship of Dr. J.D. McLean, were incorporated elsewhere during the great new-construction era of dental school facilities which has taken place since 1968 in North America.

The 1972-73 academic year saw the retirement of two faculty members whose long service to the Faculty would quickly be acknowledged with emeritus appointments. Professor of Prosthodontics George Dewis had been a member of the Faculty since 1940, and Professor of Prosthodontics Kenneth Kerr had been the first full-time faculty member in his division (and, for many years, the only certified prosthodontist in Atlantic Canada). Dr. Kerr, who left his mark on many Dalhousie dental students and inspired some to follow his footsteps and study his specialty, served the Faculty of Dentistry at Dalhousie in many ways, including periods as the chairman of the Curriculum Committee, chairman of the Continuing Education Committee, and a delegate to the Association of Canadian Faculties of Dentistry. A charter fellow of the Royal College of Dentists of Canada, a charter member of the Canadian Academy of Prosthodontics, and a charter sponsor of the Carl O. Boucher Prosthodontic Conference, a past president of the Canadian Academy of Prosthodontics, and a Canadian representative to the Federation of Prosthodontic Organizations, Dr. Kerr was recognized in 1979 by the Association of Prosthodontists of Canada with its first honorary membership, in recognition of his outstanding service to his profession and to his specialty.

At the June 1975 Faculty meeting, Dean McLean, noting that it would be his last formal meeting with Faculty as dean, used the occasion to express his sincere thanks for the interest and support that he had enjoyed from the Faculty during his time as dean. Associate Dean Robert Bingham, who would serve as acting dean until June 1976, replied that he was sure that he



*Dr. J.D. McLean, Dean 1954-75*

expressed the views of all members of the Faculty when he thanked Dean McLean for the great contribution he had made. Dr. I.K. Lubetsky remarked that, as the senior member of the Faculty in terms of number of years and time on the staff, he felt it incumbent upon himself to emphasize the outstanding contributions made by Dr. McLean in his role as dean in guiding and directing the Faculty through many difficult years and that the leadership he had inspired would be an example for the Faculty to follow.<sup>3</sup>

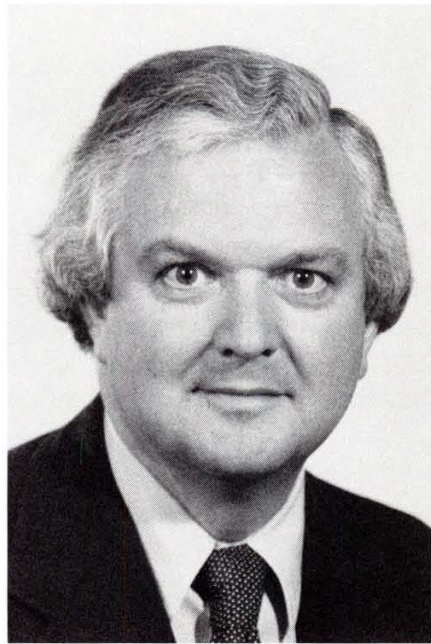
Thus, an era was coming to an end. Dr. Bingham later wrote that from 1954 until 1976 had been a time of development in dental

education that he believed will never be equalled again:

It was a time of many frustrations, but always exciting. It is also a tribute to Dr. J. D. McLean who was Dean throughout this whole period. Through his leadership, vision and knowledge of the foundations for Dental Education on this Continent, I believe that we set the foundations for dental education in this region that does not have to take a back seat to any programme anywhere.<sup>4</sup>

## V. CANADA'S NEWEST DENTAL TEACHING FACILITIES TAKE SHAPE

*Until the future dares to forget the past, Dalhousie shall be a lantern of  
higher learning in dentistry for Atlantic Canada.*



*Dr. I.C. Bennett, Dean 1976-86*

The 1976-77 academic year was marked by two major events. One was the assumption of the deanship by Dr. Ian Bennett. The other was the announcement of the decision by the premiers of the Maritime provinces that they would support a major addition to the dentistry building.

Dr. Ian C. Bennett was born in England and obtained his schooling there. In 1956, the year he earned a BDS degree from Liverpool University, he practiced briefly in England; he was a member of the Oxford University Geological Expedition to West Greenland in charge of medical supply and general health matters, and became a dental officer in the Northwest Territories. After completing his graduate work in pedodontics at the



University of Washington in 1964, he joined the teaching staff of the Dalhousie Faculty of Dentistry as head of the Division of Paedodontics. He left Dalhousie to pursue his academic career in the United States, eventually becoming the dean of the New Jersey Dental School of the College of Medicine and Dentistry of New Jersey. In 1976 he returned to Canada to accept the deanship of the Faculty of Dentistry at Dalhousie, and it was under his able guidance that the long-awaited expansion of the dental building was finally accomplished.

That expansion of the dental building that the provincial premiers had approved would allow dental student enrollment to increase from 25 to 64 in each class, allow dental hygiene enrollment to increase from 20 to 64 in each class and provide space for approximately 25 post-graduate and graduate students. This was the culmination of almost 12 years of effort on the part of the University to obtain funding for expanded facilities for the Faculty of Dentistry so that the Faculty could fulfil its mandate to supply the dental manpower needs of the region.

#### DENTAL MANPOWER PROBLEMS IN ATLANTIC CANADA

When those responsible for planning for the future provision of dental services in Atlantic Canada discussed the expansion of the Faculty of Dentistry at Dalhousie, they were influenced by the "Dental Manpower in Canada" study which was prepared in 1964 for the Hall Commission. It is today difficult to envisage that seven, or 16 percent of the 46 counties or census divisions in the Atlantic provinces had no resident dentist at that time, that three had only one dentist, and that four others had two dentists each.<sup>1</sup> There were then an estimated 115,187 residents in the seven counties with no resident dentist. Since the profession generally assumes that the need for dental service is universal, this was a very serious problem indeed. Dentists also generally assume that, the more favourable the population-dentist ratio in any area the more likely it is that the profession will be able to adequately serve the dental health needs of the population. In 1964, while the population-dentist ratio for Canada as a whole was one dentist for every 3,108 persons, Prince Edward Island had one dentist for every 3,608 residents, Nova Scotia had one for every 3,879 residents, New Brunswick had one for every 4,822 residents, and Newfoundland had only one dentist for every 10,468 residents.<sup>2</sup>

The projected population increase and movement also was carefully looked at by those planning for the dental school expansion. These projections turned out to be rather over-optimistic. For example, a statement by Newfoundland's Department of Health of the province's dental manpower needs and resources noted that on June 30, 1961, there were 50 dentists practicing actively in the province and serving an estimated population of 510,000. The following table presents Newfoundland's actual situation in 1966 and the anticipated need in 1971 and 1981:

	<i>Year</i>	<i>Dentists</i>	<i>Population</i>	<i>Ratio</i>
	1966	50	510,000	1:10,200
<i>projected</i>	1971	68	582,000	1: 8,500
<i>projected</i>	1981	116	754,000	1: 6,500

(These projections turned out to be over-optimistic, however; in 1987 there were 106 dentists registered and holders of general licences and 31 more holders of provisional licences in Newfoundland, but they served a population of only around 600,000.)

Further evidence of the acute problems associated with the provision of dental health service in Atlantic Canada was the almost complete absence of practising specialists. In the four provinces there were, in 1961, only six orthodontists (four in Nova Scotia, two in New Brunswick), one oral surgeon, no periodontists, no paedodontists, and no prosthodontists. By 1987, Newfoundland alone had registered eleven specialists: five in orthodontics, two in oral surgery, two in dental public health, one in periodontics and one in paediatric dentistry.

In 1966 there was no regional centre for the management of cases of cleft lip and palate, which occurs in an estimated one in 800 people, most of which require the co-operative services of surgeon, paediatrician, dental specialists, speech therapist, and psychologist. A fortunate few of those who required specialized attention were able to finance trips to the nearest treatment centres located in Montreal or Boston, and local surgeons and dentists gave others the best service they could, but many must have remained untreated.

In recognition of its role as the only source of education for dental personnel in the Atlantic region and in response to the generally expressed need for additional dental personnel in the region, Dalhousie University agreed in principle to an expansion of the physical facilities of its Faculty of Dentistry at the earliest opportunity.

#### BUDGETARY PROBLEMS OF THE FACULTY

From the time of its establishment, the Dalhousie Faculty of Dentistry's two chief functions have been to provide educational opportunities for young people of Atlantic Canada who wish to pursue careers in dentistry and, thereby, to provide dental personnel for the area. A responsibility to provide continuing education for members of the dental health team and to support dental research was also recognized, and the University afforded such opportunities to the best of its (extremely limited) ability to do so. In

1961, for example, in its Brief to the Royal Commission on Health Services<sup>3</sup>, the University stated that

the annual operation of the Faculty of Dentistry at Dalhousie is financed solely from student fees, Government grants, and the University's resources, including income from the operation of the dental clinic. Patient fees, which account for the latter item, are based primarily on the cost of materials and supplies, and not on the total cost of operating the clinic. The clinic is provided as a teaching unit, although considerable service is rendered incidentally to low-income groups of the immediate area at a nominal charge to the individuals. This service is of great benefit to the community. Comparisons of the cost per student and sources of University revenue for the academic year 1954-55, and 1961-62 are as follows:

	1954-55	1961-62
Cost per student	\$1,219.96	\$4,227.66
Income per student:		
By student fees	398.00	450.00
Government grants	428.80	2,438.59
University resources	393.16	339.07*
	\$1,219.96	\$4,227.66

*\*Includes a deficit for the Faculty Budget in excess of \$50,000, or about \$950 per student.<sup>3</sup>*

Although the salaries offered by Dalhousie have usually been reasonably close to those in the other Canadian dental schools, great difficulty was experienced in recruiting competent full-time teachers. In the past Dalhousie frequently had to subsidize prospective full-time staff members through a period of specialized education in order to entice them from the attractions of private practice. This is not too surprising, however, when one considers the existing incongruous situation in which the salaries offered to dental teachers, who should be among the best people in their field, were less than the income of a reasonably competent general practitioner with a few years in practice after graduation. The University was so hard pressed that it was not even in a position to offer reasonable remuneration to compensate the "part-timers" for their on-going expenses of maintaining their office while absent from it to assume teaching duties, yet, to their great credit, members of the Nova Scotia Dental Association

were willing to make this financial sacrifice for one or two half days a week in order to serve their profession at the University. Without their contribution the dental school would not have been able to function.

Moreover, as late as 1961 dental research was extremely limited at Dalhousie by physical facilities, finances, staff and available faculty time. There had been no money for research in the budget of the Faculty, and whatever had been accomplished was through funds which had to be secured from agencies outside the University. This situation obviously was a great handicap. While it is agreed that it may not be necessary for all good teachers to engage in research (actually the two activities sometimes may contradict each other, as an excellent teacher may not be suited to be an excellent researcher, and vice versa), it was a well established and recognized fact by all dental educators that research activity is a vital and essential part of a vibrant Faculty. Without active research programmes, students are not exposed to, and are not made fully aware of the true value of research and its implications, nor will there be the stimulus necessary to create additional and sorely needed workers in the field.<sup>4</sup>

#### PLANNING AND CAMPAIGNING FOR THE EXPANSION

In 1972, a final report was presented to the Nova Scotia Council of Health by the Task Force on Dental Care. The idea was reiterated that the first step towards improving both the level of dental health of the region and the number of trained dental personnel was the expansion of training facilities. The representatives of the Task Force considered the extent that Nova Scotia and the rest of Atlantic Canada would require dentists and dental hygienists in the ensuing years and it concluded that sizing the new dental building to permit a graduating class of 56 to 64 dental students would bring the level of services in the Atlantic region closer to the national average.

The Task Force also recommended that the new facility be able to accommodate 112 to 128 dental hygienists in each class. It felt that the relative sizing of the two schools was not problematic, in view of the establishment of the ratio of one dentist to two dental hygienists, which assumed that greater utilization of dental hygienists to provide restorative, preventive and educational services would undoubtedly take place in the years ahead. (Support for this ratio was given at the Deputy Health Ministers' Conference in January 1973 at Halifax.) Both estimates turned out to be overly optimistic.

It was understood that the enlarged facilities should also provide for greatly expanded research activity and for additional continuing education programmes to serve the practitioners of the region. Also, the opportunity to develop graduate programmes for specialists, future teachers and research workers, and specialty training courses were to be included in any new development. Eventually, a successful public relations campaign was started to inform the general public, as can be seen from the following:

LACK OF TEACHING SPACE BLAMED  
NOVA SCOTIA DENTISTS IN SHORT SUPPLY

*By Barbara Hind Staff Reporter*

A lack of teaching space at Dalhousie University's dental school is severely curtailing enrolment and creating a shortage of dentists in Nova Scotia.

Last week, Health Minister William MacEachern complained of a shortage of dentists in the province.

But in the past 14 years, only 363 of 1,355 qualified applicants who sought entry into the Dalhousie dental school were accepted for training.

The Dalhousie school, the only dental school east of Montreal, had to turn thumbs down on 992 young men and women. The reason for doing so was a lack of teaching space.

As qualified young dentists enter the system at a rate of about 25 a year, the pace of natural attrition keeps the number of practicing dentists almost static in the province.

In 1964, Nova Scotia had 230 dentists. By 1973, the figure remained at 230, according to the Bureau of Dental Statistics of the Canadian Dental Association.

A modest rate of increase has taken place during the same period in the other Atlantic provinces. Newfoundland had 43 dentists in 1964 and 70 by 1973; P.E.I. increased from 31 to 33 and New Brunswick, from 120 to 151.

Much of the outlay for capital expansion would be recoverable from the federal government, so the provinces' share in the cost of a new dental facility would be minimal.

"The problem is to get an agreement. Every time we get near to agreement, there's a new government or a change in the ministers of health provincially and federally."

Director of the dental clinic situated at the corner of University Avenue and Robie Street is Dr. Alexander T. Roger.

The main teaching area is divided into 33 cubicles, each furnished like a dentist's office. Of those, 25 are reserved for dental students during their four-year training period. The other cubicles are used by dental hygienists who train for two years. Twenty are enrolled.

The physical limitations are obvious. When dental students are on other assignments, perhaps at Victoria General Hospital or Izaak Walton Killam Hospital for Children assisting in oral surgery, the dental hygienists get an opportunity to use vacant cubicles.

Dr. Roger has to organize a weekly timetable to make full use of each cubicle, with its costly dental equipment.

Outside the main brick building, the mobile dental clinic with five dental chairs is pressed into service during winter as a teaching area.

Dental school offices and laboratories are in the Forrest

Building and in two private houses on Robie Street.

"We're really bursting at the seams," said Dr. Bingham.

"We use every type of operating space we can scrounge, and we are still short," said Dr. Roger.

While the scrounging for teaching space goes on in Halifax, Nova Scotian teeth rot away.

Cape Breton is one of the worst-served areas. The dentists there are swamped with patients. Each year, the dental school is canvassed to persuade young dentists to start their careers in areas with least service.

When the 29 students (largest enrolment in 14 years) of the class of 1972 graduate in May, two of them will probably augment the hard-pressed few dentists in Sydney.

Patients who use the dental clinic reflect the province's dentist shortage. Some patients come from as far as Guysborough County and Antigonish.

Demand for dental treatment at the dental clinic is overwhelming.

Students never have a shortage of patients.

On one day in August each year, usually the 15th, if it does not fall at the weekend, patients can make appointments.<sup>5</sup>

The number of young people from the Atlantic provinces seeking admission to the Faculty of Dentistry and the School of Dental Hygiene has been high for many years. Whether influenced by the publicity which dentistry has been receiving in the newspapers, changed economic circumstances, or for some other cause, the number of qualified applicants from the Atlantic provinces seeking admission to dentistry in 1972 was more than 70 percent higher than that in 1971 (for Nova Scotia alone the increase was about 133 percent; indeed, there were enough Nova Scotia applicants in 1972 to fill a school twice the size of Dalhousie's dental facilities). Because of the extreme pressure, the Faculty accepted a class of thirty for clinical facilities designed to accommodate twenty-five, in the expectation that temporary adjustments could be effected to serve this number without seriously interfering with academic experience. These numbers taxed fully the clinical space and necessitated the use of the dental trailer for clinical programmes. This was not an isolated case for an exceptional year: in 1975 there were approximately five qualified applicants from the Atlantic provinces for each space in the undergraduate dental programme and a somewhat higher proportion for the dental hygiene programme.

Faculty activities were very intensive in preparation for the timetable and programme changes which would become possible with the completion of the new building. The Faculty particularly focused its attention on changes in the curriculum. This was followed up with a series of Faculty Development Meetings through the 1979-80 academic year and with a Spring Workshop. The Curriculum Committee also developed a survey of

## NEW FACULTY APPOINTMENTS 1977-1981

1976-77	D.J. Penwell	Instructor in Prosthodontics
	Susan Penwell	Lecturer in Radiology
	R.W. Priddy	Asst. Professor of Oral Biology
1977-78	P.W.H. Amys	Instructor in Operative Dentistry
	C.A. Bain	Instructor in Operative Dentistry
	D.K. Gibson	Instructor in Orthodontics
	B.S. Graham	Asst. Professor of Prosthodontics
	T.C. Larder	Lecturer in Endodontics
	S.E. Paynter	Instructor in Prosthodontics
	S.E. Sheaves	Lecturer in Preventive Dentistry
1978-79	W.B. Barro	Asst. Professor of Orthodontics
	B.G.E. Gregg	Lecturer in Radiology
	P.R. McQueen	Lecturer in Preventive Dentistry
	M.R. Roda	Instructor in Operative Dentistry
	E.L. Smith	Asst. Professor of Orthodontics
1979-80	L.E. Cochrane	Instructor in Operative Dentistry
	J.M. Creighton	Instructor in Operative Dentistry
	J.E. Eisner	Assoc. Professor of Pediatric & Community Dentistry
1980-81	M.A. Field	Lecturer in Oral Diagnosis
	W.E. Larder	Instructor in Operative Dentistry
	L.B. Smith	Instructor in Operative Dentistry
	P. Blahut	Asst. Professor of Community Dentistry
	T.L. Boran	Instructor in Prosthodontics
	W.O. Donald	Asst. Professor of Orthodontics
	G.M. Foshay	Instructor in Periodontics
	E.L. MacInnes	Asst. Professor of Oral Surgery
	M. Seyward	Instructor in Removable Prosthodontics
	V.T.W. Shannon	Asst. Professor of Periodontics
B.A. Wright	Asst. Professor of Oral Pathology	

*Source: Faculty of Dentistry calendars*

recent graduates in order to better judge the profession's perception of the current curriculum and indicate needed change.

## DENTISTRY CELEBRATES OPENING OF EXPANSION IN 1982

The new structure was to take the form of an addition to the existing three-storey building and was to contain almost four times as much space as the existing building. In addition to allowing the growth in size of the classes, it would permit components of the Faculty that had been scattered through other buildings on the campus to be brought together into a single structure.



*New entrance into the dental building located between the Forrest Building and the "old" dental building takes shape*

This was the culmination of more than a decade of effort on the part of the University to obtain funding for expanded facilities for the Faculty of Dentistry

Construction of the additional building affected everyone. The 1978-79 academic programme had progressed along with considerable inconvenience to all concerned. Students, faculty and staff coped with good spirit during the many inconveniences which succeeded each other through the year. During the Spring Break a major relocation of dental school activities occurred, with some of the administrative offices moving to a fourth house on the west side of Robie Street, where three other houses already contained Faculty. Several lecture theatres, the Division of Oral Pathology, the School of Dental Hygiene, dental stores, and audio-visual services were relocated to the Forrest Building (and all concerned hoped that this second occupation of the Forrest Building space would be shorter than the previous one), and many other activities relocated into the Burbidge Pharmacy Building.

At the beginning of the 1981-82 academic year the first-year class in dentistry was increased to 32 students and the first-year class in dental hygiene to 28, as the first phase of a projected expansion to 48 in all classes by 1986-87. Although it was intended that 10 percent of the class would be from outside Atlantic Canada, response to the increase of the class sizes was such that the whole freshman year was made up of Atlantic Canadians.

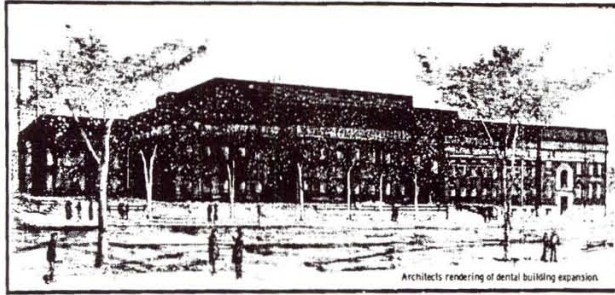
There had also been very significant physical changes through the 1981-82 academic year. About one year before, excavation began on the site for the dentistry building addition and progressed with considerable blasting, noise, and dust through virtually all of the summer and the following



June, 1982

University News Summer Edition

7

**Dentistry expansion means more teaching,**

Architect's rendering of dental building expansion.

**treatment  
and  
research  
facilities  
available**

Courtesy of Dalhousie News

*The 1982 celebration of the expanded dental building*

academic year. When the excavating efforts came to an end, work appeared to be progressing rapidly on the erection of forms for the concrete with about half of the lowest floor poured into place. An extended electricians' strike delayed the excavation because a power line traversed the site underground and could not be replaced with a temporary service. (During excavation, to no one's surprise, significant amounts of water were discovered on the site, but this was turned to advantage, as it became possible to use this water to cool the building and thereby save considerable expense in the construction of cooling towers on the roof.)

Construction delays were within tolerance, however, and, as hoped and planned, the 75th anniversary of the Faculty of Dentistry was celebrated by the official opening of the expanded dentistry building on June 18, 1982. Dalhousie's University News Special Summer Edition<sup>6</sup> placed this event within its pages in a prominent location.

**TWO DISTINGUISHED ALUMNI TO BE HONOURED AT SPECIAL CONVOCATION**

Dalhousie will confer honorary degrees on two distinguished graduates, both prominent dentists, at a special convocation to mark the official opening of the expanded facilities of the Faculty of Dentistry June 18.

Recipients will be:

Dr. Hazlett Saunders Crosby of Halifax, who practised dentistry for 59 years, retiring only last month (May); and

Dr. Donald Elmer Williams of Moncton, current president of the Canadian Dental Association (CDA).

The convocation is being held in conjunction with the 12th biennial conference of the Canadian Association for Dental Research, the annual meeting of the Association of Canadian Faculties of Dentistry, and as part of the celebrations to mark 75 years of dental education at Dalhousie. The convocation will begin at 4 p.m. in the Rebecca Cohn Auditorium of the Dalhousie Arts Centre. It will be followed by a reception and tours of the new



*The main foyer of Canada's newest dentistry building*

facilities of the Faculty of Dentistry.

Dr. Williams, a native of Saint John, N.B., is also a graduate of the Faculty of Dentistry. After graduation in 1955 he served with the Royal Canadian Dental Corps for three years. He practised in Moncton, N.B. since 1958.

Over the years, Dr. Williams has been active in local, national and international dental organizations. He was president of the Moncton Dental Society in 1962, executive council chairman of the New Brunswick Dental Society from 1964 to 1967, chairman of the fluoridation committee for the greater Moncton area (which was successful at its first attempt to introduce fluoridation, in 1970), and is a member of the Fédération Dentaire Internationale, the Academy of General Dentistry, the Pierre Fauchard Academy, and is a Fellow of the International College of Dentists.

The New Brunswick Dental Society member of the Canadian Dental Association board of governors from 1976 to 1980, Dr. Williams was a member of the CDA executive council from 1978 until last year, when he was appointed president of the association.

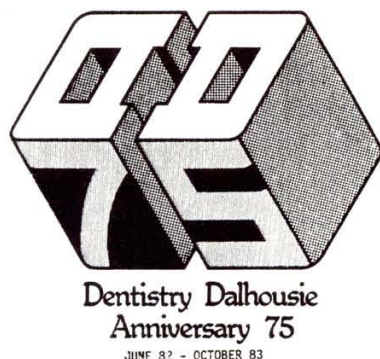
Dr. Williams has been active in the community, serving as a member of the board of directors of the Victorian Order of Nurses, the Moncton YMCA the Moncton Rotary Club, the Moncton Salvation Army, the District Boy Scouts and the United Way.

Dr. Crosby was born in Hebron, Yarmouth County, attended school there and in Halifax, and graduated from Halifax Academy. He was part of the Field Artillery serving in England and France during the First World War, at the end of which he enrolled in the Faculty of Dentistry at Dalhousie, graduating in 1923.

Dr. Crosby practised in Halifax until the start of World War II, when he was called up, serving in the Royal Canadian Artillery before being transferred to the Dental Corps and seconded to the Royal Canadian Air Force. He served in Halifax and Winnipeg, retiring as a lieutenant colonel in 1945.

He resumed his private practice after the war and served as a part-time member of the teaching staff at the Dalhousie Faculty of Dentistry. He was a professor of operative dentistry until he reached his late sixties, and is a professor emeritus of Dalhousie.

Dr. Crosby has been an active member of the Halifax Rotary Club. He is also a past-president of both Halifax County Dental Society and the Nova Scotia Dental Association, a Fellow of the International College of Dentistry, and is an honorary member of the Canadian Dental Association, and the Halifax County Dental Society.<sup>7</sup>



LOGO of Anniversary'75

The opening of the expanded dental facilities coincided with the 75th anniversary of the dental school. Many events were planned by the Anniversary 75 Committee, chaired by Dr. Douglas Chaytor. As noted in the Special Edition of the *University News*, the Anniversary Year began with a week of highly successful activities centred on a Special Convocation during which the expanded facilities of the Faculty were officially opened. The activities which launched the 75th

Anniversary Year also included the XII Biennial Anniversary year of Canadian Dental Research and Education. This conference saw no fewer than 33 presentations, many of them outstanding, on research and education. The Dalhousie Faculty was well represented in both areas. Also offered during that week were two special continuing education courses: one addressed controversies in currently available dental treatment; the other addressed political issues bearing on the future of dentistry. This was the first time that the Biennial Conference was held in association with continuing education courses, with the view of bringing together members of the teaching, research and practicing communities within the dental profession in Canada. The Association of Canadian Faculties of Dentistry and the Canadian Association for Dental Research also held their annual meetings during this week. The new Dalhousie dental school became a great place in which to be!

Thus, for the first time in several years, the Faculty was able to settle and work without the teaching, research and service programmes being continually interrupted.

Physical facilities alone do not, of course, determine an educational institution's quality. Thus, it was perhaps equally timely that in 1982 the DDS programme, the dental hygiene programme and the graduate



*Dr. H. J. MacConnachie*

programme in oral surgery all received accreditation visits from the Canadian Dental Association's Council on Education and that all were most successfully presented.

The men and women who made up the teaching faculty were, as had always been the case at Dalhousie, a group of professionals with varying backgrounds and interests bound together by their scholarly activities. One person who was new to the Faculty in 1981-82 was notable for the many scholarly disciplines he had

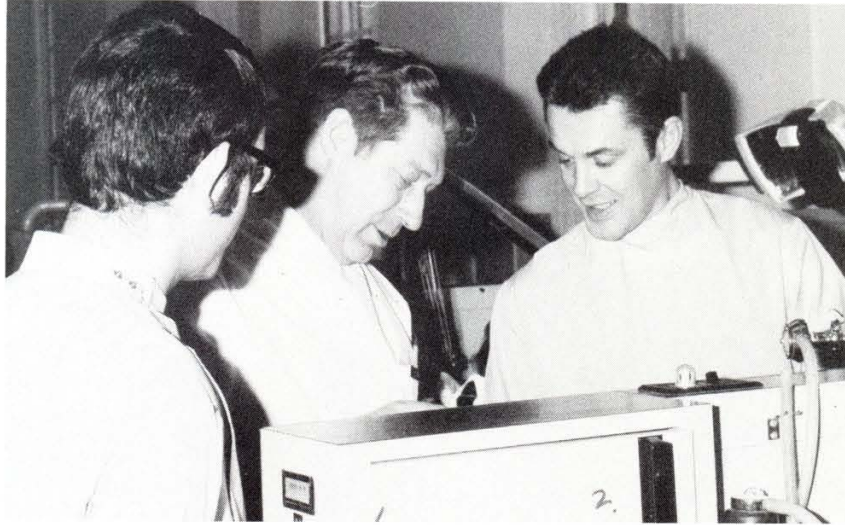
mastered as an individual. Dentist and oral pathologist, dysmorphologist, geneticist and anthropologist (and lover of fine arts), Dr. Michael Cohen had published more than 100 refereed journal articles, had produced 19 book chapters, and had written, co-authored or edited five books (with a sixth in progress and another on the drawing board) when he was appointed to the Faculty as Professor of Oral Pathology (with a cross-appointment as Professor of Pediatrics in the Faculty of Medicine).

Not all changes in the makeup of the Faculty were happy. The Faculty was shocked by the sudden death of Dr. Hugh John MacConnachie, who had joined the Faculty as a clinical demonstrator in 1954 (the year after he received his DDS from Dalhousie), became a lecturer in 1964 and was promoted to associate professor in July 1965. On returning from a leave of absence in 1966-67 during which he earned an MSD from Indiana University, Dr. MacConnachie became a professor and assumed major administrative and teaching duties, serving as Chairman of the Department of Restorative Dentistry from 1969 to 1979 and as Head of the Admissions Committee from 1976 until his death. A fund for an annual lectureship in his memory was established, and in September 1983 Dr. Ralph W. Phillips, Associate Dean for Research at Indiana University School of Dentistry, delivered the first John MacConnachie Lecture.

The Faculty also lost the services of two more distinguished professors—Drs. Robert H. Bingham and Arthur H. Ervin—this time by retirement. Whereas Dr. Bingham had been a full-time member of the Faculty since he was first appointed in 1955, Dr. Ervin had taught on a part-time basis between 1949 and 1967. Then he returned to graduate school to earn an MSC and specialty certificate in prosthodontics and rejoined the Faculty as a full-time member. Student clinicians of the American Dental Association gave him their 1981 Faculty Advisor Award for his many years' contribution to the students' table clinic programmes, and in 1983 the graduating class named him Professor of the Year. Equally known as an outstanding dentist,

## NEW FACULTY APPOINTMENTS 1982-1986

1981-82	W.O. Adams	Lecturer in Orthodontics	
	J. Arslan	Lecturer in Periodontics	
	H.D. Carmichael	Lecturer in Operative Dentistry	
	M.M. Cohen	Professor of Oral Pathology	
	M.G. Doyle	Instructor in Dentistry	
	L.P. Erickson	Lecturer in Orthodontics	
	S.R. Keddy	Lecturer in Operative Dentistry	
	R.J. Konopasky	Lecturer in Community Dentistry	
	R.L. MacNeil	Instructor in Dentistry	
	M. Mader	Lecturer in Pedodontics	
	J.W. Miller	Lecturer in Pedodontics	
	B. Pass	Lecturer in Oral Diagnosis	
	L.E. Peacocke	Lecturer in Dental Materials Science	
	R.E. Thomas	Lecturer in Operative Dentistry	
	1982-83	H.W. Brogan	Lecturer in Operative Dentistry
		D.E. Buchanan	Instructor in Operative Dentistry
B.P. Chedraoui		Lecturer in Orthodontics	
J.F. Houlton		Lecturer in Operative Pedodontics	
R. Kimmins		Guest Lecturer in Speech Pathology	
W. MacInnis		Lecturer in Operative Dentistry	
M.L. MacPhee		Asst. Professor of Periodontics	
W.A. Maillet		Lecturer in Operative Dentistry	
D.A. Miles		Asst. Professor of Oral Diagnosis	
L.E. Rozovsky		Lecturer in Community Dentistry	
L. Shore		Lecturer in Operative Dentistry	
1983-84	G.A. Burk	Asst. Professor of Endodontics	
	R.M. Brygider	Asst. Professor of Prosthodontics	
	D.P. Haas	Instructor in Operative Dentistry	
	R.E. Howell	Asst. Professor of Oral Pathology	
	G. Jackson	Asst. Professor of Community Dentistry	
	B.G. Latwaitis	Lecturer in Oral Diagnosis	
	J.G.L. Lovas	Asst. Professor of Oral Pathology	
	J. A. Miner	Lecturer in Dental Materials Science	
	A.D. Morrison	Lecturer in Oral Diagnosis	
	S. Roberts	Instructor in Pedodontics	
	1984-85	K. Abramovitch	Asst. Professor of Oral Diagnosis
P. Bourque		Lecturer in Orthodontics	
P.L. Cyr		Asst. Professor of Periodontics	
M.M. Fitch		Asst. Professor of Periodontics	
C.H. Hawkins		Lecturer in Periodontics	
N. Kaplan		Instructor in Operative Dentistry	
W.R. LeMay		Asst. Professor of Community Dentistry and Director of Patient Care	
D.J. Morrow		Asst. Professor of Periodontics	
A.L. Nette		Lecturer in Oral Diagnosis	
R.B.T. Price		Asst. Professor of Fixed Prosthodontics	



*Dr. A.H. Ervin (in the middle) with two students*

	J. Sterrett	Asst. Professor of Periodontics
	P. Stirling	Lecturer in Oral Surgery
	A.M. Zwicker	Lecturer in General Dentistry
1985-86	W. Budzinski	Lecturer in Operative Dentistry
	J.D. Gerrow	Asst. Professor of Prosthodontics
	R.L. Harrison	Asst. Professor of Pedodontics
	D.S. Richardson	Asst. Professor of Pedodontics

*Source: Faculty of Dentistry calendars*

he was able to keep excellent rapport with his many elderly lady patients. His laughter and sense of humour kept him going steadily during the many years of rewarding clinical practice. Not an "ivory tower" professor, he was also known as an enthusiastic fisherman and was active in community organizations, serving as president of the Gyro Club of Dartmouth and the Dartmouth Regional Council of the Boy Scouts of Canada. He was a former President of the Nova Scotia Dental Association, the Halifax County Dental Society and the Academy of Prosthodontics.

Dr. Robert H. Bingham received his early education in Moncton, New Brunswick, and his undergraduate education from Mount Allison. A graduate of Dalhousie in dentistry, before joining the Faculty he had thirteen years in general practice. His many positions on the Faculty included the Professorship of Oral Diagnosis, the Directorship of the Dental Clinic and being elected to be the Secretary of the Faculty of Dentistry. He was honoured by many professional organizations. Let us mention only that he was a Fellow of the International College of Dentists since 1964. Dr. Bingham also served as a member of the Senate of Dalhousie University and

became the acting dean of the Faculty of Dentistry in 1975-76. His friendly, calm yet efficient manner in administering the dental school were to be missed by many.

A new clinical programme was initiated, with students grouped in modules of six. Two second-year dental hygiene students and two third-year and two fourth-year dental students were grouped together as a working unit, each in its own dental cubicle. It was hoped that this working together as a group would eventually lead to better understanding of the interactions of practitioners and that it would lead to a student peer-review learning experience.



*Dr. R.H. Bingham, Acting Dean 1975-76*

The computerized patient-management system continued its growth (there were initially concerns regarding the amount of paper work that was necessary, but the alternative of the essentially unmanaged system of the past was deemed no longer acceptable). It was hoped that the new Hewlett-Packard 3000 series computer, which was under the direction of Peter Hsu and which was to become the heart of the Dental Management Information System (DMIS), would provide greater efficiency for faculty, staff and students in clinic patient management activities, including patient registration, patient monitoring and billing. As well, the system was to be used for continuing dental education, instructional resources, dental stores, student record keeping, student, faculty and staff reports and—last but not least—the omnipresent (and omnipotent) clinical evaluation chits. Some faculty and students were beginning to appreciate the promised benefits of the more effective management system, but initially they were in the minority and there was friction between the students and the administration until the process became better streamlined and understood.

Several aspects of the curriculum were now in a position to be implemented, no longer being restricted by the inadequate facilities of the past. Second-year students were able to start a clinical preventive dentistry course, which integrated diagnosis, radiology, oral hygiene, periodontics and operative dentistry within one cohesive faculty team. This comprehensive, interdivisional “first exposure” to patient care was introduced to help dental students see the correlation of each patient’s overall treatment needs. A new and expanded practice-management course was introduced, using the resources of persons with a background in teaching business administration. (The applied approach to be taken in this

programme was to ensure that Dalhousie dental graduates should know the difference between a balance sheet and a balanced occlusion.) A dental oncology course was initiated by Dr. Robert Hoar to provide graduates with a basic understanding of the oral and dental needs of cancer patients.

The new facility also enhanced the research potential of the Faculty. Grants were awarded to support the costs of research, and the dental biomaterials group under Drs. D. Jones and E. Sutow was able to expand their activities. A project on mercury contamination in dental treatment areas was one of many that provided useful information and feedback to the profession.

Beginning in 1982, however, financial problems plagued the University as a whole and stringent economies were being introduced to provide Dalhousie with a balanced budget. The Faculty of Dentistry had to significantly curtail the growth of the number of faculty in spite of anticipated increases in the number of students. Since the level of financial support was significantly less than had been anticipated, it led to a tightening of belts and increase in workloads. Calls for "belt tightening" and increased workload seemed to become an annual event, with Dean Bennett reporting in 1986 to the Nova Scotia Dental Association that "the financial problems which faced the Faculty a year ago have unfortunately increased in intensity."<sup>8</sup> The real crunch came in 1988.

Nevertheless, in 1984-85 the Faculty initiated a major innovative curriculum change: the Fourth Year General Dentistry programme which was the first of its kind in Canada. Great credit for this must be given to Dr. W. MacInnis, who joined the full-time staff after having been associated with the Faculty on a part-time basis, to Dr. Tom Boran, and to their part-time staff to make this new programme such a success. Dr. MacInnis was to teach initially both pre-clinical and clinical restorative dentistry but his main task was to work toward creating the development of this new clinical programme. Under his capable guidance, this course—rather a radical departure from the previous departmentalized curriculum—became an extremely successful endeavour, very much applauded by the students. They felt that it would give them a much better appreciation of what would be expected of them in general practice after graduation. At the same time they were able to provide comprehensive care for their patients, based on the patients' real dental needs and not based on the needs of the students to gather necessary clinical points in various disciplines for graduation. At the beginning of the programme approximately one-third of the final year class were selected to participate in this activity, which encompassed most of their clinical treatment of adult patients. This number was gradually increased to half of the fourth-year class and at the beginning of 1988-89 academic year the whole final year was in this programme. Faculty approved divisional status for the General Dentistry group which thus became a full-fledged Division of the Department of Restorative Dentistry.

Another innovation was the appointment to the Faculty of an education



specialist. Dr. Joe Murphy, from Dalhousie's Education Department, was to spend one day a week in the Faculty of Dentistry and in the School of Dental Hygiene. His duties included teaching biostatistics to the third-year dental students, consulting with faculty to aid in the improvement of instruction, assisting faculty with issues of research design and statistical analysis of data, conducting collaborative research on various aspects of dental education, and assisting with the implementation and evaluation of "general dentistry." Dr. Murphy became involved in many individual faculty projects through the Master of Education programme and by assisting and co-authoring education research projects. (Thus, of Dalhousie's nine papers presented at the 1989 American Association of Dental Schools meeting in San Francisco—the greatest participation by a Canadian faculty of dentistry at the conference—seven had Dr. Murphy among their authors.) Finally, twelve faculty members were enrolled in a pilot programme leading to a Master of Education in Curriculum Studies. This programme was designed for professional educators in dental and dental hygiene fields and entailed three years of part-time and summer session study. The first part in this unusual (and much appreciated) programme was completed during June 1986, and the first MEd degrees were awarded during the 1989 May convocations to Ms. T. Mitchell from the School of Dental Hygiene, and Drs. Bruce Graham, Bill MacInnis, Tom Boran and Harold Brogan.

In 1985 Dr. J.D. McLean retired from the Faculty. At the November meeting of the Halifax County Dental Society, he was toasted and "roasted," his old friend and faculty confrère Dr. G. Pentz putting into perspective in a few words what Dr. McLean had done for the Dalhousie Faculty of Dentistry:

It certainly wasn't the money that convinced Jim he should come East, but rather the challenge to build a new dental school literally from the ground up and to build it the way he wanted it. When Dr. McLean arrived in Halifax the whole dental school occupied four or five rooms on the first and second floor of the south wing of the Forrest Building, we had one full-time faculty member, Dr. Bagnall, who was about to retire; about a dozen part-time faculty members who were paid the princely sum of \$10.00 per half day...and twelve to fifteen students. Perhaps this will help to put perspective on the challenge Jim faced in 1954. In the next 21 years, he built a new dental building, he built a faculty and support staff...and assured us a place second to none among Canadian Dental schools and second to few in North America. About half way along he added a School of Dental Hygiene. As well as that, he was responsible for a major portion of the planning that finally culminated in the facility we have today. I personally don't think Jim got nearly the credit he deserves on that score....Perhaps the recognition he received last spring when he was made "Dean

Emeritus" partially atones for that oversight. Through this whole period "he did it his way"....Some may have been sceptical at the time but in retrospect, "his way" wasn't half bad—a fact he knew all along....Jim, we are proud of you. You have served your university, your profession and your community with distinction.<sup>9</sup>

That evening Dr. McLean also received the Dr. Philip S. Christie Award for Distinguished Service, which is the Nova Scotia Dental Association's highest honour, given in recognition of individuals who have given outstanding service to the dental profession.

Later Dr. John R. Robertson, President of the Canadian Dental Association, presented Dr. McLean with the Association's Distinguished Service Award at the Canadian Dental Association's Board of Governor's meeting in Ottawa in recognition of Dr. McLean's outstanding service to the dental profession in Canada. And at the 1987 spring convocation, Dalhousie University conferred on him an honorary Doctor of Law degree. His citation read in part:

During his tenure as Dean, the Faculty made remarkable progress. He was an innovator in dental education, recognizing that for efficient teaching it is essential to have people with expertise in the various subject areas, and he attracted such people to Dalhousie. He understood the importance of dental hygiene and introduced a program to train professionals in this area. Because of the rapid development of the faculty, not only in members but in teaching and research programs, additional accommodation became necessary, and he undertook the planning which led to the construction of two new dental buildings. Dr. McLean has given generously of his talents beyond his professional activities. Organizations which have benefitted from his assistance include Fort Massey United Church, the Canadian Red Cross, the Canadian Bible Society, the Neptune Theatre Foundation, and the Atlantic School of Theology. He has Honorary Membership in numerous Dental Associations, and is a Fellow of the International College of Dentists, and of the American College of Dentists. He is an Honorary Fellow of the Royal College of Dentists (Canada) and of the Academy of Dentistry International.

On June 30, 1986, the second five-year term for Dr. Ian Bennett as Dean of the Faculty of Dentistry came to an end. It was an exciting period of growth, with perhaps the principal change being the construction of the new dental building rising out of the shell of the old one and the growth in class size which accompanied that change. Many times there were obstacles to overcome, there were problems with budget cuts, problems with the construction, but overall, the results were gratifying and Dean Bennett must have had a feeling of satisfaction to see the completion of the newest dental

school building in Canada. He was fortunate that during his period there were many people, too numerous to mention individually, whose hard work and dedication to dental education in Atlantic Canada made his task easier.

## DEANS 1908-1986

Frank Woodbury	1908-12 (Maritime Dental College) 1912-22
Frank W. Ryan	1922-24
George K. Thomson	1924-35
W.W. Woodbury	1935-47
J. Stanley Bagnall	1947-54
James D. McLean	1954-75
Robert H. Bingham	1975-76
Ian C. Bennett	1976-86
Kenneth L. Zakariasen	1986-

## VI. RECENT TIMES

*Will the dentist of the 21st century be a 'stomatologist' or a 'supergeneralist'?...the decision will not be fully academic or intellectual. External forces such as social pressures, student cost of education and accreditation guidelines will exert an influence on that decision.<sup>1</sup>*

Marcia Boyd

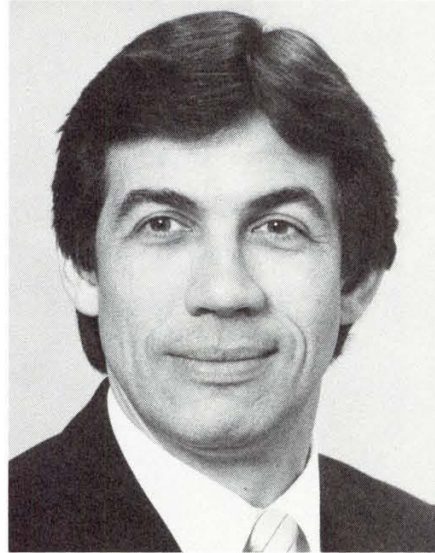
### ACADEMIC PLANNING POLICY AND FACULTY CHANGES UNDER A NEW DEAN

Dr. Kenneth L. Zakariasen assumed the position of Dean of the Faculty of Dentistry in July 1986. Actually, he met his faculty already at their annual retreat in June, which was held at the Liscombe Lodge. Dr. Zakariasen received his BA, DDS, MS (Endodontics) and PhD (Epidemiology) degrees at the University of Minnesota. He served as Associate Chairman of Endodontics at the University of Minnesota and Chairman of Endodontics at Iowa and at Alberta. His research interests were in the intra-oral use of lasers, the development of new clinical endodontic techniques, instruments and materials and dental epidemiology.

The appointment of a new dean usually affects the tone or the direction of a faculty, to a lesser or greater degree, and it became increasingly apparent what direction Dalhousie's Faculty of Dentistry would take under Dean Zakariasen. In December 1986, the Faculty submitted a five-year academic plan to the Senate of the University. Two major objectives outlined in the plan were to increase significantly the research activity profiles of the full-time faculty and to revitalize the continuing education programme.<sup>2</sup> The major objectives outlined to the Senate were:

- 1) Strengthening the under-graduate teaching programmes by continued development of the General Dentistry Programme, development of a degree programme in dental hygiene and adding faculty members and developing programmes in other key areas where programmes are presently incomplete and/or understaffed.
- 2) Significantly increasing the research activity profiles of full-time faculty members.

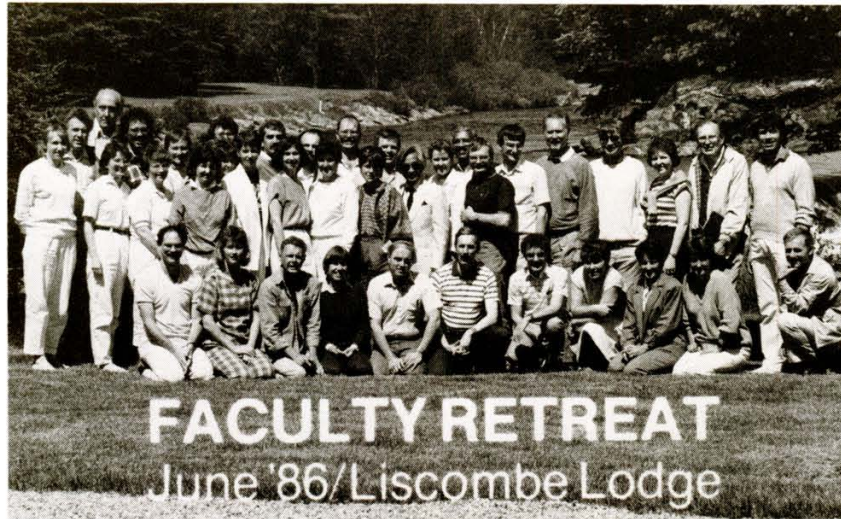
- 3) Seeking increased research funding through government and private sectors.
- 4) Expanding and updating continuing education program-ming.
- 5) Significantly improving and developing alumni relations.
- 6) Developing graduate programmes in selected areas such as Biomaterials Science.
- 7) Continued support of the MEd. programme in dentistry to more highly develop expertise as dental educators and in educational research.
- 8) Conducting dental epidemiologic and health services research in the Atlantic Region.
- 9) Expanding out-reach programmes for special patients.



*Dr. Kenneth L. Zakariasen, Dean 1986-*

The attainment of this ambitious academic plan objective depended on the ability of the Faculty to develop adequate flexibility of financing and upon the increased efficiency in the use of faculty and staff. In the seven months after this plan was submitted to the Senate, a number of positive actions were taken in pursuit of those goals. Among these were the appointment of Dr. Derek Jones as Assistant Dean for Research and the establishment of a Research Development Office to facilitate research activities within the Faculty, the appointment of Dr. Donald Cunningham as Assistant Dean for Alumni Affairs and Continuing Education and the appointment of Ms. Kate MacDonald as full-time Director of Alumni Affairs and Continuing Education. In those times of financial restraint, it was not easy to defend Dentistry's academic plan vis-à-vis the interests of other faculties and schools of the University, and the Faculty was unfairly "rapped for its entirely unrealistic and unattainable desire for increased funding for staff and equipment."<sup>3</sup> (Well, it never hurts to ask for excellence!)

One need not return to the days of the Maritime Dental College or even to the pre-Second World War days of budgeting to appreciate the problem of obtaining an adequate level of funding. Thus, the Faculty of Dentistry's budget for 1971-72 was at \$1,174,000. This income was derived from the following: the governments of the Atlantic provinces collectively provided \$1,049,300, which left about \$125,000 to be funded from other sources. Tuition fees accounted for about \$77,500 and Dalhousie University provided the rest. Thus, in 1971-72, about 90% of the revenue came from governments. The cost to educate a dental student was about \$12,000 a year, of which the student paid \$800 in tuition. Eighteen years later, in 1989-90,



*A faculty retreat. 1. E.A. Toporowski, 2. G. Glasser, 3. O. Sykora, 4. G. Steeves, 5. J.D. Sterrett, 6. P.D. Grant, 7. M.E. Kinnear, 8. E.*

*Andrews, 9. P. Scott, 10. D.J. Trider, 11. D. Chalmers, 12. D.W. Banfield, 13. S. O'Connor, 14. R.M. Brygider, 15. A. MacDonald, 16. G.S. Jackson, 17. N. Prowse, 18. C. H. Hawkins, 19. J.R. Asuncion, 20. M.G.E. Forgay, 21. T.H. Ibrahim, 22. R.M. MacDonald, 23. R.B. Price, 24. C. Strawn, 25. B. Graham, 26. M. Mader, 27. T.E. Spracklin, 28. K.L. Zakariasen, 29. K. Abramovitch, 30. D. Morash, 31. D.P. Cunningham, 32. B. Gregg, 33. R.A. Bannerman, 34. D.W. Jones, 35. T.L. Boran, 36. S. Roberts, 37. K.F. MacDonald, 38. B.B. Harsanyi, 39. R.E. Hoar*

the governments of Atlantic provinces provided the Faculty \$5,261,000, which left about \$1,315,000 to be funded from other sources. Tuition fees accounted for about \$445,000 and Dalhousie University provided the rest. Thus, in 1989-90, only about 80% of the revenue came from governments. The cost to educate a dental student was about \$37,500 a year, of which the student was expected to pay \$2,125 in tuition. At the end of the Second World War, according to the University Calendar for 1945-46, the tuition was still only \$250 per annum.

It was easy to forget that dental education is particularly capital intensive, requiring an expensive building because of the large support systems such as compressed air, suction, and medical gases. In addition, the dental equipment necessary for the operation of the clinical programme is extremely expensive, yet has a useful life of only 10 to 15 years, even for the more substantially constructed items. Further, dental technology has changed rapidly over the last 25 years and this has tended to make equipment obsolete rather more rapidly than in the past. Also, it is essential that dental students be educated using state-of-the-art equipment, and the

cost of maintaining this state was always high. Sometimes this was not easy for those in other faculties to understand.

By 1986, the Faculty of Dentistry was staffed by 137 full- and part-time faculty and 102 staff positions, a far cry from the staffing days in the Forrest Building.

In 1987, a new Division of Endodontics was created within the Department of Restorative Dentistry, and Dr. Steve Brayton became its first head (rather an appropriate choice, since he was the first specialist in endodontics in Atlantic Canada). The Faculty accepted a proposal to establish a Department of Applied Oral Sciences, which was to focus especially on dental research that has direct impact on the practice of dentistry. As stated in Dean Zakariasen's announcement, this new department, which was unique in Canada, was intended to strengthen scholarship within the Faculty.<sup>4</sup> It was expected that the appointments of Dr. Trevor Chin-Quee (who came to Dalhousie from McGill) as Director Designate of the Periodontics Post-Graduate Programme and Dr. Philip Cyr to Oral Surgery would further facilitate research activity objectives in these two disciplines. Dr. Gary Jackson was appointed as Director of Patient Care. It was anticipated that with his enthusiasm and a wealth of expertise in the area of out-reach programmes for special groups, such as geriatric patients he would contribute to the service of the community at large. Mr. Douglas Schaller of Community Dentistry was appointed to direct the Faculty's practice-management courses at both the undergraduate and continuing-education levels, focussing especially on microcomputer applications in dental practice. Mr. Schaller also continued as director of Dental Management Information Systems. A computer laboratory, to be used for both the continuing-education and the undergraduate dental student courses, was made possible through dental alumni gifts to the Faculty.

The General Dentistry Programme was developing over a number of years to the point where, in the fall of 1988, the entire fourth-year class entered this programme. The Curriculum Committee reviewed studies concerning student stress and time-management experiences. As a result of these concerns, it was recommended that a Time and Stress Management Course be introduced (the hope being that adding another course to an already overburdened curriculum would not produce more stress on the students). Geriatric dentistry became more important, with the increase in the elderly population. The Faculty started to hold discussions with the Camp Hill Hospital regarding geriatric dental care experience for the dental students. The School of Dental Hygiene developed an out-reach educational experience with the Sisters of Charity Mother House Infirmary at Mount Saint Vincent University. Ms. Joanne Clovis, appointed to the School of Dental Hygiene, had an extensive background in dental health promotion. Her expertise was to be used to guide students in dental health awareness for special-needs patients. A challenging task, an Academic Policy Manual for the Faculty of Dentistry was prepared by Dr. Bruce

## NEW FACULTY APPOINTMENTS 1986-1991

1986-87	S. Abbass	Instructor in General Dentistry
	T. Ackles	Instructor in General Dentistry
	P.L. Barro	Lecturer in Orthodontics
	S. Barry	Instructor in General Dentistry
	L.P. Bilodeau	Lecturer in Oral & Maxillofacial Surgery
	A. Burry	Instructor in Dental Materials Science
	T.F. Foley	Instructor in Removable Prosthodontics
	S. Gordon	Instructor in Oral Diagnosis
	K. Gravitis	Lecturer in Oral Diagnosis
	W. Horne	Lecturer in Removable Prosthodontics
	P. Johnson	Instructor in Operative Dentistry
	B. Johnston	Asst. Professor of Orthodontics
	H.W. King	Adjunct Professor of Biomaterials
	P.A. Leech	Lecturer in Orthodontics
	G.F. Lovely	Instructor in General Dentistry
	K. McGrail	Instructor in Oral Diagnosis
	A. Sachdev	Lecturer in Periodontics
	A.F. Thompson	Asst. Professor of Orthodontics
	D. Tisch	Lecturer in Periodontics
	D.J. Trider	Instructor in Removable Prosthodontics
1987-88	K.L. Zakariasen	Professor of Endodontics & Dean
	S. Burke-Brundige	Instructor in Oral Diagnosis
	T. Chin-Quee	Assoc. Professor of Periodontics
	J.R.E. Currah	Lecturer in Operative Dentistry
	B.W. Goodine	Instructor in Operative Dentistry
	D.P. Haas	Instructor in General Dentistry
	B. Hart	Lecturer in General Dentistry
	B. Pass	Asst. Professor of Oral Diagnosis & Radiology, & Dental Biomaterials Science
	A.S. Rizkalla	Asst. Professor of Dental Biomaterials Science
	D.O. Schaller	Lecturer in Community Dentistry
	G. Usher	Lecturer in Endodontics
1988-89	D. West	Instructor in Removable Prosthodontics
	A.E. Young	Asst. Professor of Pedodontics
	P. Zwicker	Instructor in Removable Prosthodontics
	P. Bell	Instructor in General Dentistry
	B. Creaser	Instructor in Prosthodontics
	A.I. Ismail	Assoc. Professor of Community Dentistry
	J.B. Kiri	Instructor in General Dentistry
	T.A. Logue	Instructor in General Dentistry
	N.L. Mantha	Asst. Professor of Periodontics
	G.A. Martell	Instructor in Endodontics
C.A. Murdoch	Instructor in Oral Diagnosis	
R. Raftus	Instructor in Prosthodontics	
R.S. Roda	Instructor in Prosthodontics	



1989-90	E. Toporowski	Lecturer in Periodontics
	J.J. Williams	Instructor in Operative Dentistry
	H. Al-Hasson	Asst. Professor of Periodontics
	S.A. Best	Instructor in Dentistry
	H.D. Carr-Kinnear	Instructor in Prosthodontics
	B.J. Delaney	Lecturer in Periodontics
	P.R. duToit	Lecturer in General Dentistry
	B. Eastwood	Asst. Professor of Statistics
	W.C. Foong	Asst. Professor of Dental Material Science
	R.H.B. Goodday	Asst. Professor of Oral & Maxillofacial Surgery
	W.K. Lobb	Asst. Professor of Orthodontics
	A.A. MacLeod	Instructor in Oral Diagnosis
	B. McCarthy	Instructor in Prosthodontics
1990-91	C.H. Riordan	Instructor in Pediatric Dentistry
	H. S. Bowden	Instructor in General Dentistry
	L. DeLorey	Asst. Professor of Periodontics
	P. Demers	Asst. Professor of Oral & Maxiofacial Surgery
	B.N. Fergusson	Instructor in General Dentistry
	K. Fung	Lecturer in Pediatric Dentistry
	J. Johnson	Asst. Professor of Biomaterials Science
	M. Matthews	Asst. Professor of Oral & Maxiofacial Surgery
	F. Mullins	Lecturer in Operative Dentistry
	W. Presse	Lecturer in Operative Dentistry
	J. Rukavina	Asst. Professor of Pediatric Dentistry
	M. Salyzyn	Lecturer in Community Dentistry
	N.H. Shah	Assoc. Professor of Oral Biology

*Source: Faculty of Dentistry calendars*

Graham, Assistant Dean, Academic Affairs, in September 1987. Student representatives on Faculty committees were given full membership status with all voting privileges. Likewise, students elected by their societies to become representatives on Faculty Council and subsequently elected by Faculty had full membership status with all voting privileges at Faculty Council and Faculty meetings, similar to faculty members.

In his first report to the Nova Scotia Dental Association, Dean Zakariasen dealt with what was to become the greatest issue facing the dental profession, namely its manpower problem. While in the past the profession's manpower problem was a shortage of dentists and dental graduates, now the situation was quite the opposite. Even the Professional Resource Utilization Committee of the Canadian Dental Association agreed that dental faculties across Canada should take a closer look at their enrollment and do something about it. Thus, at Dalhousie, discussions were held as to whether there should be 30 or 40 dental students per class. It was finally agreed that the class size should be 32. Dean Zakariasen stated that "overall for 1987 for this coming September there will be 19 fewer dental and dental hygiene students taken."<sup>5</sup> This was not an isolated case. Other Canadian dental schools had limited their class size. University of Toronto



*Dr. G. Pentz*

initiated the biggest cut, reducing the number of students per class from a maximum of 128 to 104 in 1987 and 80 in 1988, with a possibility to 64 in 1989. Similar cuts were made at McGill University in Montreal.

Beginning in the spring of 1988 a number of important administrative changes took place within the Faculty in rapid succession. Dr. Bruce Graham was appointed Associate Dean, Academic Affairs. Dr. Douglas Chaytor resigned as Chairman of the Department of Restorative Dentistry after serving eight years in that capacity and took a year's special administrative leave; Dean Zakariasen assumed the role of

acting chairman of the Department. Dr. Robert Hoar resigned as Head of the Division of Removable Prosthodontics, and Dr. Jack Gerrow took over his duties. Dr. Wayne Barro elected to step down as Chairman of the Department of Pediatric and Community Dentistry, and Dr. Peter Pronych became the acting chairman of that Department and also succeeded Dr. Ian Bennett as Head of the Division of Pediatric Dentistry when the latter resigned that position in February 1989. Two other full-time faculty members decided to limit their contribution to the school: Drs. Crawford Bain and Kadry ElGeneidy. The great clinical knowledge these men possessed, and particularly its practical daily application on the clinical floor with their students, was not easy to replace. Finally, at the end of June 1988, Dr. Gordon Pentz completed his term as Assistant Dean for Student Affairs and was replaced by Dr. Robert MacDonald, who moved to the Division of General Dentistry from the Division of Operative Dentistry. Dr. Pentz also stepped down as acting director of the Post-Graduate Programme in Periodontics. He gave 40 years of dedicated, distinguished service to the Faculty, serving in many positions within the Faculty with distinction and leadership. Fortunately for students, patients, staff and faculty members, for whom he was always a friend, Dr. Pentz agreed to stay with the Faculty on a part-time basis after his retirement. Other faculty were also recognized for their contribution over the years.

#### INTO TURBULENT WATERS: FINANCIAL AND ACADEMIC

Although the Dental Faculty, with the exception of the School of Dental Hygiene, was never a part of the Dalhousie Faculty Association (DFA) as a

## RETIREMENT DINNER



*Dr. Ed Spracklin*



*Dr. Guy Faulkner*



*Dr. Claude Franklin*

On the evening of June 25, 1990, faculty, staff, and friends gathered in the Cameron Room, Shirreff Hall, to honor Dr. Ed Spracklin on his retirement from the Faculty of Dentistry.

In a humorous roast, Dr. Wayne Barro outlined the characteristics of "Uncle Ed" that make him a "distinct individual." His motorcycle, his bicycles, his workaholic tendencies that had him practically living at the dental school, his models in every available corner, as well as his total dedication to students, particularly in the Ortho II course. He gave of himself to the Faculty of Dentistry as no one has before or will again.

Ed was on the full-time faculty for over twenty years and now plans to travel with his wife Lorraine for the next year. We hope that at the end of that time he will return on a part-time basis.

The same occasion served to recognize with the traditional "Rose Bowl," Dr. Guy Faulkner and Dr. Claude Franklin. Guy and Claude retired from the full-time faculty five years ago but have continued on a part-time basis until the end of this academic year. Their contribution over the years has been tremendous. They will be missed.

*Retirement dinner for Drs. Spracklin, Faulkner and Franklin*

union, it shared the limelight when in the fall of 1988 the DFA went on a strike over what was at its core a problem that stemmed from the fact that funding for the University was consistently less than the rate of inflation. However, it was not easy for the public to understand that the Faculty of Dentistry was not involved in this dispute between the DFA and the administration of the University. (At least the dental students were not deprived of three weeks of their studies.)

It certainly was not easy to balance the budget for the Faculty in the 1980s. The money situation reached rather alarming proportions with the 1987-88 academic year, when the Faculty was faced with an operating budget cut of 5.24 percent. This represented the fifth year since 1983-84 that Dalhousie University faced budget reductions as a result of the level of governmental funding and the costs of services rendered. The cumulative effect of these cuts to the Faculty was approximately 18 percent, ignoring the impact of inflation or the exchange rate for the Canadian dollar. Since the 1986-87 academic plan, several full-time faculty members had left the

Faculty, and, to help achieve the goal for a balanced budget, their positions were not refilled. In summary, through resignations, retirements, lay-offs, sessional appointment and attrition, a total saving of \$592,000 was achieved. This was spread over 20 academic and staff positions, 13 student positions, and six departments.<sup>6</sup> Fortunately, the responsibilities towards the community at large did not diminish with the reduction of the resources available to the Faculty. Actually, it was precisely at this stage of financial restraint that the Faculty made a considerable effort to reach beyond the borders of Canada. The co-operative efforts with the University of Istanbul, Turkey, in the field of prosthodontic education, and with the University of Alexandria, Egypt, to establish a preventive children's programme, were initiated by Drs. Oskar Sykora and Peter Pronych, respectively.

Nobody can deny that the late 1980s became an interesting time for universities and their faculties. Newspapers were full of articles suggesting that "Better incentives needed to attract high quality teachers."<sup>7</sup> This certainly would be difficult to achieve, given the underfunding of the university and the handicap the Faculty faced competing with the financial rewards of private dental practice. The students would "assail education funding"<sup>8</sup> and criticize "professors' teaching ability."<sup>9</sup> Part of the problem may have been in the perception that the University encouraged graduate programmes, research and publishing rather than the quest for excellence in teaching. This culminated in a University Symposium on Undergraduate Education, held in March 1988, that was organized to improve the understanding of the strengths and weaknesses of education at Dalhousie University.

Obviously, the Faculty of Dentistry could not escape this ferment on the campus. "Considerable confusion, misinformation and disagreement appeared to exist as to what constitutes the successful dental academic career in the Faculty of Dentistry."<sup>10</sup> Therefore, the Faculty Developmental Committee in consultation with Dean Zakariasen agreed that a symposium to address a number of important issues should be discussed in a forum open to all faculty members. The question of what constitutes a successful dental academic career was nothing new at Dalhousie and had been discussed many times before. For example, in 1945 the dean's annual report to the Nova Scotia Dental Association contained the following:

There are two types of teachers to be found in our dental schools, as well as two types of research workers. There is, on the one hand, the teacher who is quite content, often even doggedly so, to impart well known facts and information to his students and to train them in long accepted modes of procedures. This type of teacher is often highly accomplished in his own method and is usually useful in the educative process; but the horizons of such teaching are narrow. There is, on the other hand, the teacher who is never satisfied with the mere transfer of accumulated knowledge from his mind to the minds of his students, nor with the employment without questions of procedures which have served earlier needs.

This type of teacher thinks more of developing power, ability and interest in his students individually than of cramming their minds with established facts or training their hands in accepted processes. All progressive education is on the constant lookout for teachers possessing this gift.<sup>11</sup>

Dentistry was fortunate to have many excellent teachers. In 1989, Dr. Gerrow received the prestigious Dalhousie Alumni Award for Excellence in Teaching. This award is given to a Dalhousie professor each year, and this is the first time ever that it has been won by anyone from the Faculty of Dentistry.

The symposium of the Faculty of Dentistry in May 1988 produced an interesting 58-page brochure with a wealth of information and ideas. These ranged from the "Significance of Part-time Faculty Contribution" to "Faculty Teaching Assessments," "Faculty Profiles: what really counts toward career progression and meriting" to "Proposed Full-time Faculty Member Workload Guidelines for the Purpose of a Fiscal Flexibility Study," and "Future of a Career Development Plan." It was apparent that the days when a faculty member was just employed to teach, do research or simply "do his job" were lost forever in the maze of criteria, work loads, feasibility studies and a variety of profiles. With the budgetary restraints, a perception (probably faulty) developed within the Faculty that the part-time members would be used more and more for teaching in the pre-clinical and clinical areas, while the full-time faculty would be more involved in research, administration, and overall co-ordination of teaching programmes. Actually, the clinical and pre-clinical teaching commitments of full-time faculty members were adjusted, where necessary, to allow time for scholarly activities.<sup>12</sup>

## CURRICULUM FOR THE YEAR 2000

### EDITORIAL...THE DENTAL SCHOOL CURRICULUM

Any plan of formal education includes a group of relevant subjects specially selected to achieve the purpose for which the program is intended. The total contents of all courses directed toward a specific goal is called a curriculum.

Agreement on any curriculum can only be reached after its objectives have been defined and recognized as desirable and realistic. Generally it may be stated that any curriculum should be designed to enable the student to meet the responsibilities he assumes upon graduation. The dentist's responsibility is to provide a highly specialized health service which, although closely related, is quite different from that provided by other members of the health profession.

In recent years, dental research has resulted in a tremendous increase in available knowledge and improved techniques in every

phase of dentistry. This is especially applicable to periodontics, orthodontics, oral pathology, preventive dentistry and pedodontics where advances have been dramatic. Also, an educated and better-informed public is demanding a more complete treatment program from the general practitioner. He must be prepared to treat all dental conditions which do not require the special skills, experience and knowledge of the specialist. In order to meet these changes, the dental curriculum must constantly be critically reviewed and extraneous background material or disproven techniques eliminated. It is essential, because of the time factor, that every effort be made to ensure that every part of study is meaningful, efficient and directed toward meeting its objective. No attempt should be made to eliminate the old because it is old, but tradition or personal preferences should not hinder deletion of the obsolescent.

If the present high esteem of dentistry is to be maintained and enhanced, the dental curriculum must not only continue to attract ambitious young people of high intelligence, but also efficiently prepare the student to meet his responsibilities and changing demands made by the public he will serve.<sup>13</sup>

This editorial was written by a student in the *Dalhousie Dental Journal* more than 20 years ago. The basic principles of the dental school curriculum do not change with time: the ideas as to what should constitute an "ideal" dental curriculum are as old as the dental profession. What does change is their application. The concept to establish dental curriculum on a base of medical education, as advocated by Dr. Gies in his report in the 1920s, was again submitted for consideration in a guest editorial in the November 1988 issue of the *ACFD Forum*. According to the author there were a number of potent reasons why the stomatological system of curriculum should be seriously reconsidered.<sup>14</sup> In his address as retiring president of the Nova Scotia Dental Association, the Faculty's future first dean, Dr. Frank Woodbury, came to the same conclusions - already in 1899!<sup>15</sup>

The Curriculum Review Project progressed well into 1988 with the formation of a curriculum framework for the 1990s and beyond. This was an ambitious undertaking by the whole Faculty, and the whole agenda of the 1988 Faculty Retreat was devoted to this topic. The 25-page proposal for a revised dental curriculum was completed in February 1989 and implementation of some aspects of the new curriculum was expected to commence that September.

This situation was not particularly unique to Dalhousie. Curriculum committees across the country were busily responding to the changes in dentistry. Indeed, there must be something about changing the curriculum that dental educators cannot resist. Next to the chronic lack of money in the annual budgets, curriculum reviews must be the second constant feature in the lives of dental faculties. In a way, this tendency to modify and improve

the curriculum is a natural and healthy reaction to the changing pattern of dental practice. Reaction to this was natural if "in reality, a few more thousand earnest man hours are to be spent on reorganizing the same pack of cards" with the pleas to "have a 5 year moratorium on curriculum changes."<sup>16</sup> What were the main features of the proposed new Dalhousie Faculty of Dentistry curriculum for the 1990s and beyond? One was that dentistry applicants must possess an undergraduate degree or have completed or be prepared to complete prerequisite science courses as a requirement for conditional admission. Another idea presented was that DDS graduates will have to complete a programme of studies consisting of a "core" and "selectives." It was agreed that the introduction in the biological sciences must become more relevant to dental students. Biological and dental science instruction would be structured so that the former is continued into the third and fourth years of the dental curriculum, while the latter would be introduced gradually in the first and second years.

The Faculty has, during the past year, given considerable thought to the closer integration of the pre-clinical medical sciences and the dental clinical subjects. To be more specific, we have endeavoured to face and evaluate the truth of the contention put forward by an able dental educator that the failure to vitally interest the dental student in the pre-clinical studies is largely due to the failure of the dentist himself, whether as a practitioner or as a teacher in the clinic, to apply at the chair the body of scientific knowledge comprising these same pre-clinical subjects. The student is likely to be interest in the pre-clinical sciences in proportion as he sees them applied in practise.<sup>17</sup>

Were these conclusions reached at the Faculty Retreat on Curriculum Review in 1988? Not really. They were formulated by Dean W.W. Woodbury fifty years ago in his annual report on behalf of the Faculty to the 1938 annual meeting of the Nova Scotia Dental Association. It is to some a startling discovery that the problems which are facing dental educators at the end of the 20th century are not so unique to our age. The plans were to structure the new dental curriculum to have fewer, more integrated courses. Another significant change was in the idea to allow some flexibility in the time required to complete the dental programme, which would accommodate different needs among students. An old idea was presented in a newer application: It would entail a satisfactory completion of a scholarly activity which would represent a contribution to the profession of dentistry. The main (and most radical) change was the introduction of three phases within the four-year curriculum. This new structure would emphasize the integration of biological, dental and human and professional-development sciences. Control of each phase would rest upon the proposed new administrative positions of three new assistant deans, who, with the departmental chairmen and the associate dean for academic affairs, would

## VII. THE SCHOOL OF DENTAL HYGIENE

*...one who is versed in the science of health and prevention of disease..*

Alfred Fones

On June 23-26, 1988, Dalhousie University along with its Faculty of Dentistry celebrated the 25th anniversary of the first graduating class from the School of Dental Hygiene. Since the first formal training programme in dental hygiene was initiated by Dr. Alfred Fones in Bridgeport, Connecticut, in 1913, the dental hygiene profession has grown steadily in North America and, indeed, has spread to the whole world. Legal recognition of dental hygiene as a health occupation in Canada began in Ontario in 1947. Other provinces soon followed:

### LEGAL RECOGNITION IN CANADA OF DENTAL HYGIENE AS A HEALTH OCCUPATION, BY YEAR<sup>1</sup>

<u>Province/Territory</u>	<u>Year</u>
Ontario	1947
Saskatchewan	1948
Prince Edward Island	1950
British Columbia	1951
Manitoba	1952
New Brunswick	1953
Nova Scotia	1955
Yukon	1958
Alberta	1959
Quebec	1962
Northwest Territories	1967
Newfoundland	1968



---

constitute a new Curriculum Co-ordination Committee with responsibility for implementing this new programme.

This was an ambitious undertaking, but as Dean Zakariasen had stated,

There is no question that the dental profession is in a period of significant change and that these changes will influence, and can be influenced by, our Faculties of Dentistry. Dalhousie intends to be a positive player in these changing times.<sup>18</sup>

The Faculty will continue to work vigorously toward a balance between teaching and scholarship, recognizing the need to maintain the quality of educational programming already established, the need to continually analyze and modify our curriculum to reflect ongoing changes in dentistry, and the need to further develop scholarly activities so that we as faculty members can contribute significantly to both the science and practice of dentistry.<sup>19</sup>

The “recent times” were times of rapid change, sometimes maybe even too rapid for the faculty and the staff to digest. Nevertheless, that the Faculty had accomplished so much under the leadership of Dean Zakariasen—in spite of the financial cutbacks—and had set its sights clearly on its future endeavours was well summarized in the conclusions of the 1988 Canadian Dental Association survey team:

The Faculty of Dentistry at Dalhousie University...has established an undergraduate program in dentistry with a sound reputation and has expanded its offerings to include Oral and Maxillofacial Surgery, Periodontics and Dental Hygiene as well as continuing education courses. The undergraduate program in dentistry is now well established and the faculty is placing increased emphasis upon research. The challenge of the immediate future will be to accomplish this desirable emphasis while maintaining the excellence in didactic and clinical education in dentistry which has been achieved.<sup>20</sup>

The education process elicits from people the potential hidden even from themselves. The message to the Faculty as an institution of higher learning cannot be summed up better or in fewer words than those uttered by Goethe nearly two centuries ago: “If you treat a person as he is, he will stay as he is; but if you treat him as if he were what he ought to be and could be, he will become what he ought to be and could be.”

## DENTAL HYGIENE IS INTRODUCED TO NOVA SCOTIA

Dental hygienists were first legally recognized in Nova Scotia in 1955, through an amendment and an addition to the Dental Act of Nova Scotia. Dr. Gordon Dawson, the Director of the Dental Health Division of the Nova Scotia Department of Health, was responsible for this initiative.

Several factors prompted the establishment of an educational programme in dental hygiene within the Dalhousie Faculty of Dentistry in 1961 (the first course in Canada that led to a diploma in dental hygiene had been established in 1951 in Ontario). Among the more important of these were the increased employment opportunities in private dental practices and in dental public health programmes sponsored by the various provincial departments of public health in Atlantic Canada. Other factors were the desirability of providing educational opportunities for young people (particularly women) of the Atlantic provinces and of providing Dalhousie dental students with some experience in working with a dental hygienist. In summary, it was believed that the establishment of a school of dental hygiene at Dalhousie would assist in providing a further extension and an improvement of dental health services for the community of the Atlantic region.

As was explained by Dalhousie's "Brief to the Royal Commission on Health Services" in 1961, to improve the dental health of Canadians living in the Atlantic provinces, the Faculty of Dentistry was asked to explore the training of hygienists as soon as it would become practical and to investigate the extent to which additional duties might be delegated to adequately trained auxiliaries. Actually, it was obvious that the dental teaching programme could become more efficient and effective if dental hygienists or dental hygiene students could be employed in increasing numbers. Dental assistants, dental hygienists, and dental technicians could be used to assist dental students in many additional clinical and laboratory duties, thus relieving them of some tasks that they otherwise had to undertake personally. At the same time, dental students would be trained to use auxiliaries more effectively in their subsequent private practice. There was no question of the value that dental hygienists would bring to dental public health and to members of the dental profession. Their success was demonstrated with their valuable contribution in providing essential preventive dental services for patients, allowing dentists more time in which to perform other treatment services.

At the time of planning for the construction of the first Faculty of Dentistry Building, provision was already made for students in dental hygiene. Excellent physical facilities were provided, and in many ways this dental building, which was officially opened in 1958, was better built than the new one from 1983. At the Faculty meeting on May 8, 1959, Dean McLean was able to report that the Board of Governors had approved a course for the training of dental hygienists. However, financial support for

the proposed dental hygiene programme remained to be found and finding the necessary faculty was not easy. Most of these obstacles were eventually overcome, as is evident from a newspaper article which appeared on March 29, 1961:

NEW SCHOOL OF DENTAL HYGIENE FOR DALHOUSIE

Starting next October, Dalhousie will have a school of dental hygiene, which will form part of the Faculty of Dentistry. Today Dr. A.E. Kerr, president, announced the appointment of Mrs. Janet Louise Burnham as director of the new School of Dental Hygiene in Dalhousie University.

A native of Duluth, Minnesota, Mrs. Burnham received her early education in St. Paul, Minnesota, later attending the College of Science, Literature, and Arts, and the School of Dental Hygiene of the University of Minnesota, from which she graduated as a Dental Hygienist in 1936. Subsequently, she obtained her Bachelor of Arts Degree from the University of Iowa, and then pursued further studies, primarily in courses in the Public Health field at the university of Minnesota.

The new school, second in Canada, will train young women for a career as public health educator and oral prophylactician. Regular university entrance qualifications will be required

In private practice the work of the dental hygienist will consist of performing prophylactic treatments, scaling and polishing of teeth, charting, taking radiograms, counselling on home care of the mouth and managing a recall system. To some extent it may include dental assisting, clerical work and office management.

In the field of public health her work is mostly educational, teaching to groups of people, particularly children. These she reaches through community organizations, clinics and schools. Using illustrations, models and every teaching technique possible she enlists the cooperation of parents and children alike in promoting good habits of dental health.

A young woman of eighteen or more with a good academic record who has the required manual dexterity, could be considered as qualified to succeed as a dental hygienist.<sup>2</sup>

The funds needed to initiate the School and to operate it for three years were secured from the W.K. Kellogg Foundation. Funds for the first year included a sum for capital expenditures: instruments, educational films, reference books and other items necessary to implement the programme. Funds for the first year of operation were granted on the basis of an initial class of eight students. Cost was estimated at \$2,299 per student. The amount of the grant for the second year of operation was based on estimated costs for a total of twenty students (eight second year, twelve first year) and amounted to \$1,239 per student. For the third year, the amount of

the grant was based on cost of operation for twenty-four students and amounted to \$1,070 per student.

The Kellogg Foundation's support of the School's operation for the first three years did not solve all of the School's financial problems, however. The problem that the School faced was that, upon the expiration of the Kellogg grant in June 1964, financial support would have to be obtained from other private sources, from the national government in Ottawa and/or from the provincial governments of the Atlantic region. Even seven years later, financial support for the School of Dental Hygiene was in not a particularly enviable position. Thus, the School's budget for the 1971-72 academic year was set at \$95,405. The factor used for government support, the so-called unit grant, was at \$1,350 per student, which provided the School with revenues of \$52,659. Student fees accounted for an additional \$26,500.

The two-year course leading to a diploma in dental hygiene offered at Dalhousie was established on the traditional curriculum. The courses that comprised the educational programme may have been classified as general, scientific, laboratory, and clinical. The basic-science courses were largely concentrated in the first year of study, and the more specifically dental hygiene courses and clinical practice were emphasized in the second year. Admission qualifications to the course of study were the same as for all other undergraduate programmes at Dalhousie. The prerequisite was satisfactory completion of specified subjects of high school matriculation.

In September 1961 the School of Dental Hygiene admitted its first class of eight students; they were from three of the four Atlantic provinces (New Brunswick, Nova Scotia, and Newfoundland) and Ontario. Five of the eight students were on bursaries from their respective provincial governments and were to be employed in dental public health upon their graduation. Several of the students had completed their senior high school matriculation and one student had completed two years of study at Dalhousie before admission.

Dental anatomy was taken with the dental students. Other subjects were the principles of oral prophylactic treatment, introduction to dental techniques and materials, the study of biomaterials used in dentistry with experience in carrying out certain dental laboratory procedures, and an understanding of the duties of the dental assistant and the clinical experience in chair-side assisting. English and chemistry were taken with other undergraduate students in Arts and Science. Classes in human anatomy and physiology and in bacteriology, especially arranged for dental hygiene students, were taught by the Faculty of Medicine. This programme of study in the first year provided knowledge of basic sciences which were necessary for the understanding and appreciation of the more specific dental hygiene courses which were to be offered in the second year of study. During the second year, the development of clinical skills would be emphasized. The courses in the second-year programme included nutrition,

dental public health, dental health education, first aid, dental therapeutics, ethics and jurisprudence. Two classes, sociology and psychology, were taught in the Faculty of Arts and Science.

In 1961, Janet R. Burnham was appointed the first Director of the School of Dental Hygiene. E. Anne Mitchell of Truro and Anne MacIntosh, the latter through the excellent co-operation of the Department of Health of Nova Scotia, each provided part-time assistance to her for part of the academic year. But even this arrangement proved to be less than fully satisfactory, and Ms. Mitchell found it necessary to resign because of her difficulty in procuring a suitable housekeeper to look after her 18-month-old child. Thus, they were not even listed in the University Calendar. Later on, a second full-time teacher was secured for dental hygiene. Kate MacDonald, who received her dental hygiene education at the Forsyth Dental Infirmary in Boston, joined the Faculty after experience in her native Prince Edward Island and later in a periodontics practice and in the Dental Division of the Department of National Health and Welfare in Ottawa. In years to come she would play an important role not only as a Director of the School of Dental Hygiene but also in continuing education and alumni affairs and in the daily life of the whole dental school.

With the resignation of Ms. Burnham in 1965, the University appointed Mary G. Sloanaker as the new Director. She came to Dalhousie from the faculty of the Forsyth School for Dental Hygienists, in Boston. She was a diplomate in dental hygiene from the University of Pennsylvania and received a Bachelor of Science in Health Education from Boston University. In addition to teaching, Ms. Sloanaker had experience in private practice and public health work.

During the summer of 1970, the School of Dental Hygiene and the Dental Faculty were pleased to co-operate with the Department of Public Health of Prince Edward Island by providing a special training programme in extended duties for a group of hygienists selected to participate in a pilot study on the Island. In this same connection, in part prompted by a request from the Prince Edward Island authorities that Dalhousie should assure them of a continuing supply of hygienists trained in extended duties, the Faculty convened a conference to consider appropriate action with regard to the dental hygiene curriculum. It was clear right from the beginning that it would be exceedingly difficult, if not impossible, to obtain all the answers from this workshop. Nevertheless, it was a useful endeavour and it was to provide a guidance for the School of Dental Hygiene for its future activities into the 1970s.

In 1971, again in response to a request from the Department of Health of Prince Edward Island, a special training programme in extended duties for dental hygienists was conducted during the summer. At the request of the Nova Scotia Dental Association and the co-operation of the Department of Manpower, four dental hygienists from Nova Scotia were included in the special programme on Prince Edward Island, and all completed the course

## DIRECTORS OF THE DALHOUSIE SCHOOL OF DENTAL HYGIENE

Janet R. Burnham	1961-65
Mary G. Sloanaker	1965-68
Dr. A. E. MacLeod (acting)	1968-69
Katherine F. MacDonald	1969-82
Linda Zambolin (acting)	1982-83
Suzanne M. Knox	1983-84
Peggy M. Larder (acting)	1985 (6 months)
Glenda Butt (acting)	1985 (2 months)
Margery G. E. Forgay	1985-90
Joanne Clovis	1990-

*Source: Office of the Director of the School of Dental Hygiene*

in a most satisfactory manner. Upon completion of this second successful summer programme, the School of Dental Hygiene attempted to secure funding through both the local University Grants Committee and the Department of National Health and Welfare, in order that this form of instruction could become an integral part of the regular course of studies in dental hygiene. Unhappily, notwithstanding repeated government arguing that greater use should be made of dental auxiliaries, these requests did not meet with a favourable response.

The story of the School of Dental Hygiene is primarily the story of a small and dedicated group who unselfishly gave their best to bring the School from humble beginnings to a position that is second to none in the country. And all this was accomplished in just twenty-five years. In 1962, the University calendar in its Academic Staff section listed only Ms. Janet R. Burnham under the School of Dental Hygiene column. Twenty-five years later the Calendar listed seventeen full and part-time faculty members. Likewise, at the May 1963 convocation, the School graduated its first three students: Karen M. Arron of Halifax, Evelyn C. McArthur of Burlington, Ontario, and Patricia L. Walters of St. John's, Newfoundland. Twenty-five years later thirty-nine graduates received diplomas. The two-year dental hygiene diploma programme became a well-established clinically oriented course of studies which prepared its graduates to deliver dental hygiene services in the dental office.

The year of 1983 was not only a big year for the Faculty of Dentistry, the Post College Assembly and Continuing Education but also for the School of Dental Hygiene:

This year marks the 20th anniversary of the first graduating class in Dental Hygiene at Dalhousie. To celebrate the event, a reunion of all graduates is being planned during the Post College Assembly,

APPOINTMENTS TO THE ACADEMIC STAFF,  
DALHOUSIE SCHOOL OF DENTAL HYGIENE

1961-62	J.R. Burnham	Asst. Professor
1962-63	S. J. Barton	Lecturer
1964-65	K.F. MacDonald	Instructor
1965-66	M.G. Sloanaker	Asst. Professor
1968-69	E.A. Mitchell	Instructor
	E.C. Peglar	Instructor
	D.M. Silver	Instructor
1970-71	P. Hannigan	Instructor
	D.L. MacAskill	Instructor
	L. Zambolin	Instructor
1971-72	A. Gourley	Instructor
1972-73	G. Butt	Instructor
1973-74	W.I. MacDonald	Instructor
	P.D. Shaffner	Instructor
1975-76	H. MacRae	Lecturer
1976-77	M.P. Murphy	Lecturer
1977-78	P.M. Larder	Lecturer
1980-81	G.P. Fielding	Lecturer
	M.E. Kinnear	Lecturer
1981-82	J.R. Arnold	Asst. Professor
	S.M. Caisley	Lecturer
1982-83	D.L. Mitton	Lecturer
1983-84	G.P. Brown	Lecturer
	S.M. Knox	Asst. Professor
	P.M. Phelan	Lecturer
1984-85	E. Andrews	Lecturer
	T. Drake	Lecturer
	E. Forrest	Instructor
	G. Kaiser	Instructor
	G. Kilcup	Instructor
	T. Mitchell	Lecturer
	S. O'Connor	Lecturer
	N. Prowse	Lecturer
1985-86	D. Chalmers	Lecturer
	M.G.E. Forgay	Professor
	C. Kincaid	Instructor
	D. Morash	Instructor
1986-87	P.D. Grant	Lecturer
	S.A. Koss	Lecturer
	A. MacDonald	Instructor
	G. Steeves	Instructor
1987-88	T. Harris	Instructor
	C. Keyser	Instructor
1988-89	J. Clovis	Assoc. Professor
	B. Fortune	Instructor

	M. Kennedy	Instructor
	J.M. Maillet	Instructor
	J. Parker	Instructor
	H.E. Pittman	Instructor
	C.L. Robb	Instructor
	C. Thistle	Instructor
1989 - 90	M.L. Boudreau	Instructor
	D. Macdonald	Instructor
	J. Moreside-Kiri	Instructor
1990 - 91	J. Elliott-Wellwood	Instructor
	P. Hawksworth	Instructor
	P. Hendry	Instructor
	J. Jardine	Lecturer
	H. Middlebrook	Lecturer
	D. Pasher	Lecturer
	P. Scott	Instructor
	J. Thomas	Lecturer

*Source: Faculty of Dentistry calendars*

May 8-11. Plans include a two-day continuing education course, a Sunday-night buffet, a luncheon in honor of the 1983 graduating class in Dental Hygiene and Dentistry, and a reception honoring all Dental Hygiene graduates.

The School of Dental Hygiene began at Dalhousie in 1961 when it became the second program of its kind in Canada, having been preceded by the University of Toronto 10 years earlier. It is now one of the four surviving university-based programs in Canada. The others are at the University of British Columbia, the University of Alberta and the University of Manitoba. There are 19 other Canadian dental hygiene programs, most of which are in community colleges, (Ontario), CEGEPS (Quebec), a technical institute, (Saskatchewan) and a military establishment (Base Borden, Ontario). The Universities of Toronto and Montreal have degree programs for hygienists....

Over the years changes have been made in the traditional curriculum to include expanded duties in restorative dentistry. The team concept has been introduced in the clinic, enabling dental students, dental hygiene students and dental assistants to work closely together in providing the best possible patient care.

Dental Hygiene graduates have been active participants in continuing education courses offered by Dalhousie for a number of years. It seems fitting, therefore, that the 20th anniversary of Dental Hygiene graduating classes should be celebrated at Post College Assembly, an annual continuing education event which introduces new graduates to lifelong learning.<sup>3</sup>



It was a fitting moment when on May 11, 1983, Dalhousie conferred an honorary degree on Ms. Janet Rood Burnham, first director of the Dalhousie School of Dental Hygiene. She joined the fifty graduating dental and dental hygiene students at the Faculty of Dentistry convocation. In 1984, dental hygiene students formed their first society:



*Dr. Janet Burnham, shown with President Andrew MacKay, having received the degree, Doctor of Laws honoris causa at the Dental Convocation, May 11, 1983*

A small group of students recognized a need for a student society to promote unity within the School of Dental Hygiene by facilitating communication and co-operation among students of each year of the program. Also, the students wanted to establish and maintain effective communication between faculty and students and promote social and athletic activities to society members....<sup>4</sup>

The Annual Table Clinics presented by the dental hygiene students and their efforts to teach children about proper oral care were appreciated very much indeed by an interested audience.

The first male student ever to attend the School was admitted in the 1986-87 academic year. Others were to follow:

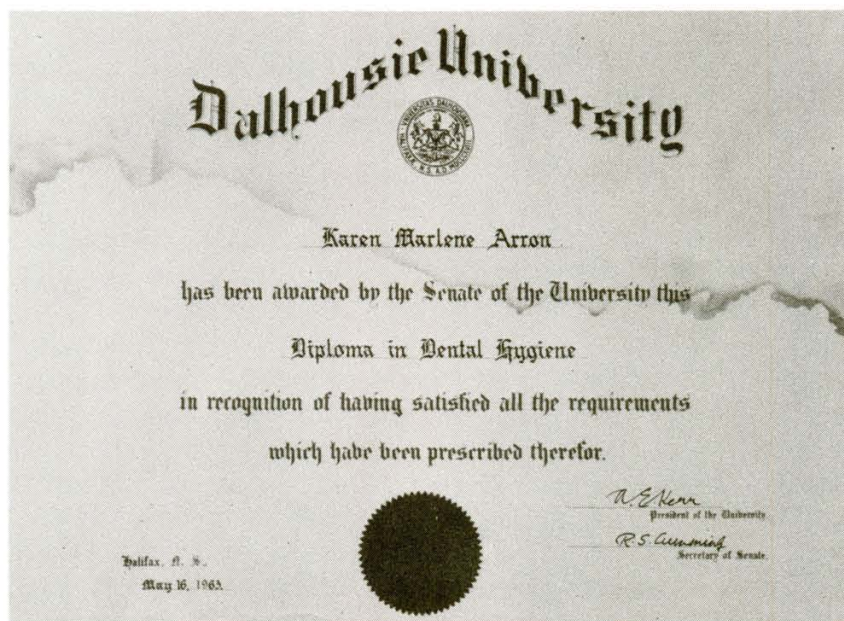
#### MEN MAKING MARK IN FEMALE DOMAIN

When Bill Nippard was accepted for studies at the school of dental hygiene he had absolutely no idea he was to become the first man in an all-woman world at Dalhousie....

No one - instructors, patients or classmates - singles him out as being different from any other student.

Nippard's career choice was influenced by a visit to Henry King, a dental hygienist in St. John's, Newfoundland. Nippard was studying at Memorial University in his home province and considering a future in dentistry but he realized he preferred dental hygiene....

Dental hygiene has always been female dominated, to the extent that in the past some provinces even had legislation prohibiting males from enrolling, says Margery Forgay, director of the school for dental hygiene.



*A Dalhousie dental hygiene diploma from 1963*

But the field is becoming a more attractive career choice for several reasons. The job has more variety now - graduates work in hospitals, group clinics and private practice. There is a high demand for people to fill positions. Salaries have grown to a level that can give someone with even minimal experience between \$25,000 and \$40,000.

The school now selects a class of 40 students from a pool of 250 applicants, many with previous educational experience. This fall the school accepted its second male student, Dan Mercer, also a Newfoundlander.

Forgay hopes to attract more males to the school. "The students we've had fit in well," she says.<sup>5</sup>

As was already mentioned, the 25th anniversary of the first graduating class of Dalhousie University's School of Dental Hygiene was celebrated June 23-26, 1988.

Various scientific and social events were planned to commemorate this event. At this occasion, the Kate MacDonald Bursary Fund was established, in recognition of her outstanding contribution to dental hygiene education.

In February 1986, under the leadership of professor M.G.E. Forgay, the School embarked on a comprehensive review of its programme and its objectives for future development. The School of Dental Hygiene Unit Review Committee was broadly based and included not only all full- and part-time dental hygiene faculty members but also representatives from the student body, departments of the Faculty, related faculties, the Nova Scotia Dental Association, the Nova Scotia Dental Hygienists' Association, the



*Assoc. Prof. Katherine F. MacDonald*



*Prof. M.G.E. Forgay*

Nova Scotia Department of Health, and Faculty and University administration. The review was conducted in two phases: the first considered basic policies and programme philosophies, and the second used the decisions from the first to investigate and make specific recommendations regarding entrance requirements, programmes offered, curricula, administration, and teaching.

The observations were many and significant. It was noted that the existing traditional two-year curriculum in the diploma programme had several major problems, namely overcrowding of curriculum, too many separate courses given by different faculties, redundancy of teaching in some subject areas, very little free time allocated for students, and little opportunity to add content to reflect changes in dental hygiene roles and responsibilities. Also, the applicant pool in dental hygiene had changed considerably in the last few years. Applicants tended to be more mature, older, have a wider variety of experiences, and most had at least one year of university experience. Moreover, the number of applicants had not diminished over the years (in 1987, for example, there were 250 applications for the 40 available positions in the first year). The overall attrition rate in the programme had been low, but was higher among students who had had no previous university experience. The gradual development of the dental hygiene profession had created new roles that were not easily filled by those with only diploma-level education. Specifically, there was a constant need for additional preparation for dental hygienists intending to work in community dental hygiene and educational settings. Three recommendations evolved from these observations: (1) that students be

required to have five full university courses before they can be admitted to the dental hygiene diploma programme, (2) that the dental hygiene diploma curriculum be revised to restructure and augment the present content, and (3) that there be a post-diploma programme established, leading to a Bachelor of Dental Hygiene degree. There were, however, some voices of dissent with a completely different outlook on the future role for the School of Dental Hygiene to play:

CLOSE DAL SCHOOL - SYDNEY DENTIST

A Sydney dentist is calling for the closure of the Dalhousie University School of Dental Hygiene and the development of a province-wide system of training dental hygienists in community institutions like the University College of Cape Breton.

Dr. A. MacLeod said in an interview that he "would support the Dalhousie program if it met the need for dental hygiene service."

He said dental hygiene graduates "are not coming back to Cape Breton. If they were trained here, it's more likely they would stay and work here. Right now hygiene services are too centralized in Halifax."

...A former faculty member of the Dalhousie University Dental School, Dr. MacLeod said the new dental school facility, which graduates 40 hygienists per year, "is reputed to be one of the most expensive buildings to operate on the entire campus."

...Professor Margery Forgay, director of Dalhousie's Dental Hygiene School, disagreed with Dr. MacLeod's call for a community college system. "There is actually a growing number of hygienists in Cape Breton. As we graduate more applicants from Cape Breton, more are going back," said Prof. Forgay. Admitting the dental school is expensive to maintain, she added: "a dental faculty on any campus is the most expensive program to run."

Prof. Forgay said it is "beneficial and practical" to train hygienists and dentists together because a dental office "involves a team approach. Here at our clinic we approximate a typical dental practice as closely as possible."<sup>6</sup>

When the new dental building was being planned, it was recommended that the entering class size for the diploma course in dental hygiene should equal that for undergraduate dentistry. Already, in 1969, the Faculty was planning ahead for a dental hygiene degree programme, a pretty farsighted policy which was not to come to any actual proposal and attempt of realization until almost twenty years later. It is worth pointing out that the 1969 report pertaining to the proposed new dentistry building stated "that provision be made for a class size of eight in a two-year Bachelor's programme in dental hygiene, and further provision be made for a class size of four in a one-year graduate programme in dental hygiene."<sup>7</sup> Thus,

looking from the historical perspective the proposed "new" dental hygiene programme in 1988 was not new at all but an implementation of ideas formulated almost two decades ago.

The Letter of Intent for the Programme leading to the degree Bachelor of Dental Hygiene was presented at the general Faculty Meeting, November 25, 1987. As expected, such a proposal, which would considerably change the programme of the School of Dental Hygiene and eventually might even alter the traditional relationship between the dental and dental hygiene professions, stimulated considerable discussion within the dental health community. The Faculty, despite considerable opposition within its ranks, approved the Letter of Intent. However, final approval had to be secured from the Board of Governors of the University. The discussion was held not only within the academic community. Strong opinions were voiced in the Nova Scotia Dental Association's newsletter, *Nova Scotia Dentist*. In the June 1988 newsletter, a letter from Dean Zakariasen strongly defended and advocated the formation of a Bachelor of Dental Hygiene programme.<sup>8</sup> Other dentists, mainly general practitioners in the nonacademic milieu, had severe reservations about the idea and voiced their objections.<sup>9</sup> It must be accepted that any new idea has to be tested against the vested interests of any group of people. Thus, the reaction of many of the general practitioners against this extended dental hygiene programme was to be expected. It was not too many years ago that the dental profession had a losing battle against the denturists who were gradually licensed across the country. This resulted in a loss of income to dentists. The fear was natural that further erosion of this base was to follow.

Whatever the outcome of some of the conflicting ideas, it was clear that the status quo was hard to maintain. The question was now whether the future changes within the School's programme will be made with the co-operation and help of dentists earning their livelihood outside of academe, or whether the changes will be made in spite of opposition and misgivings. The concensus was clear, however: a gradual change was inevitable. As was pointed out, it is extremely important for both dentists and dental hygienists to work in a spirit of co-operation for the betterment of both dentistry and dental hygiene. The adversarial positions taken by some individuals within both professions no matter how well meaning, might only serve to weaken both groups from within. With so many significant external pressures on the oral health care system today, nobody can afford serious internal friction for any length of time. Rather, both dentistry and dental hygiene must expand their efforts "in cooperatively addressing these external pressures which could seriously compromise the effective oral health care system which has been developed in Canada."<sup>10</sup>

# VIII. THE UNSUNG HEROES: THE SILENT (AND SOMETIMES NOT SO SILENT) MAJORITY

*Without whom it would be impossible.*

M.A. Rogers

## — THE STUDENTS —

### ENTRANCE REQUIREMENTS AND THE RIGHT TO PRACTICE

The problem of deciding who would be qualified to enter the study of dentistry was wrestled with right from the school's beginning. Actually, the dental profession in Atlantic Canada had faced it even before the establishment of the Maritime Dental College, as details on qualification for matriculation, the licensing examinations, and the registration of diplomas were included in the 1895 Act of Incorporation, Amendments, By-laws and Code of Ethics of the Dental Association of the Province of Nova Scotia and Provincial Dental Board:

#### XVIII – QUALIFICATIONS FOR MATRICULATION

As a Student in Dentistry:–

- (a) The applicant must be the full age of sixteen years.
- (b) A written application for Matriculation accompanied by certificate of age and character, at least fourteen (14) days before the examination. (See Sect. 12, Act of Incorporation).
- (c) A Matriculation Fee of Ten (\$10) Dollars must be paid to the Secretary-Registrar before the examination.
- (d) Candidates must pass an examination in the branches named in Sect. 36, Schedule B. Act of Incorporation), or  
They must possess a degree in Arts (not honorary) from some recognized University, or  
An "A" Certificate from the Council of Public Instruction of Nova Scotia, or a "B" Certificate from the same source including an

examination in Latin as provided in Sec. 36, Schedule B., Act of Incorporation.

(e) After having passed the examination satisfactorily, a certificate from the Dental Board shall be given the applicant to that effect by the Secretary and his studentship shall commence at that date.

#### XIX - EXAMINATIONS FOR LICENSE TO PRACTICE DENTISTRY

Candidates for License to practice Dentistry must qualify as follows:

1. He must be the full age of 21 years.
2. He must forward the Secretary-Registrar fourteen (14) days before the examination.
  - (a) A written application for examination, accompanied by a satisfactory certificate of character, and
  - (b) The License fee of Twenty (\$20) Dollars must be paid before the examination takes place.
  - (c) The Matriculation certificate, unless Sect 16, Act of Incorporation applies.
  - (d) He must have been a student of Dentistry for three full years under one or more Licensed preceptors, a part of which may have been spent in some Dental College recognized by the Board. (See Sect. 14, Act of Incorporation).
  - (e) A written statement from himself and certificate from his preceptor or preceptors as to the length of time in months he was studying under his or their direction, and if he has attended any School of Dentistry to present his class tickets and diploma.
  - (f) He shall pass an examination before the Board of Examiners on the subjects usually included in a Dental education, and to perform operations in the mouth and to give practical evidence of skill in Prosthetic Dentistry.
  - (g) The examination shall be written, oral and clinical, and comprises the following subjects:
    1. Anatomy, especially of the head and neck.
    2. General Physiology and Dental Histology.
    3. Principles and Practices of Medicine and Surgery, as applied in Dentistry.
    4. Operative Dentistry, Dental Pathology.
    5. Therapeutics and Materia Medica.
    6. Prosthetic Dentistry, Metallurgy.
    7. Chemistry and Anaesthetics and other branches usually required for a Dental Education.

#### XX. – FINAL EXAMINATIONS

The Board of Examiners shall consist of practitioners qualified as provided in Sect. 5, Sub-Section 8 of Act of Incorporation, who shall prepare a set of examination papers, which shall be submitted to the whole Board of Examiners, and a definite value placed upon

each question, the aggregate value of each paper to be 100, 60 per cent of each correct answers to which shall pass the student, provided no subject shall fall below 35.

An Oral and Clinical Examination shall be held by each examiner and the replies and operations shall be rated by the same standard as the written examination.

The Board of Examiners shall meet and examine the papers and operations and if the student reaches the average of 60 per cent on the whole work, and does not fall below 50 in any clinic, he shall receive a certificate to practice Dental Surgery in Nova Scotia.

#### XXI.—REGISTRATION OF DIPLOMAS

Any person in possession of a diploma from a college of Dentistry recognized by the Board and who has been a student of Dentistry for 36 months, at least twelve months of which has been spent in a Dental College, may be registered by the Registrar without examination, provided that he must possess the scholastic qualifications required in By-Law No. 18, sub-sect, (d) otherwise the applicant must pass a Matriculation Examination as required in Sections 11, 12 and 14 of the Dental Act. All students of Dentistry who were not registered under Section 16 of the Act of 1891, before Oct. 1st, 1892, are required to pass the Matriculation examination as set forth in By-Law No. 18, sub-sect. (d)<sup>1</sup>

The Standards of Matriculation were established according to the wishes of the Nova Scotia Dental Association:

STANDARD OF MATRICULATION OR PRELIMINARY  
EXAMINATION ESTABLISHED UNDER THE  
PROVISIONS OF CHAP. 41, SEC. 2,  
ACTS OF 1895.

(APPROVED BY THE GOVERNOR-IN-COUNCIL, JAN. 14TH, 1896.

- (1) Latin— Translation from specified books. Grammatical questions. Easy sentences of English to be translated into Latin.
- (2) English— Writing from dictation. Questions on English Grammar, including parsing, and the analysis of sentences. A short essay to be written on a subject announced at the time of the examination.
- (3) Arithmetic— As much as is contained in Hamblin Smith's Arithmetic.
- (4) Algebra—Fundamental Principles. Factoring. Fractions. Indices. Surds. Simple Equations and Quadratic Equations, with problems involving their use. Arithmetical Progression. Geometrical Progression.
- (5) Geometry— First four books of Euclid, with easy exercises.
- (6) Physics—As much as is contained in Gage's Introduction to Physical Science.
- (7) One of the following subjects at the option of the candidate:
  - (a) Greek —Translation from a specified book, with questions in Grammar.



- (b) French— An examination similar to that in Latin.
- (c) German—An Examination similar to that in Latin.
- (d) History—History of England or General History, as in Swinton's Outlines of the World's History.
- (e) Chemistry— As much as is contained in Williams' "Introduction to Chemical Science."

Provided, That the Dental Board will accept in lieu of said examination a Grade "B" certificate of the Academy course of Nova Scotia, including the Latin qualification required in the Schedule, or a Government certificate from any other province or country, which upon inspection, is proven to be equivalent to said examination.

#### MATRICULATION EXAMINATION.

Read this carefully

All persons commencing the study of dentistry, either in a dental office or in college, must pass the matriculation examination, as provided in Clauses 11 and 12, of Act of Incorporation of Dental Association, 1891. The Clauses and Schedule referred to are as follows:

IX. Hereafter no person shall begin to enter upon the study of Dentistry in any or all of the several branches, for the purpose of qualifying himself to practice the same in this Province, unless he shall have obtained from the Provincial Dental Board a certificate that he has satisfactorily passed a matriculation or preliminary examination in the subjects specified in Schedule "B" to this Chapter.

XII. No candidate shall be admitted to such matriculation or preliminary examination unless he shall have at least fourteen days previous to such examination given notice to the Registrar of the Board of his intention to present himself for such examination and transmitted to the Registrar a certificate showing that he has completed his sixteenth-year, and shall before the examination have paid a fee of ten (10) dollars to the Registrar.

N.B. "Ignorance of the Law" will not be considered by the Board in reference to any application for registration or matriculation. Dentists are requested to refer students to the Sec'y. Registrar for information.

#### TEXT BOOKS FOR MATRICULATION COURSE

Latin for year beginning October 1st,	1898, Cæsar, Gaelic War, Books I & III.
“ “	1899, Virgil, Æneid, Book III.
Greek for year beginning October 1st,	1898, Xenophon, Anabasis,

		Book II.
	“	1899, Xenophon, Anabasis,
	“	Book III.
French for year beginning October 1st,		1898, Voltaire, Charles XII,
		Books I & II.
	“	1899, Louvestre: Un
	“	Philosphnoiv (sic) sous les
		toits.
German for year beginning October 1st,		1898, Hauff, DasWirtshaus
		im Spessart.
	“	1899, Hauff, Das Wirtshaus
	“	im Spessart.

The following resolutions re Matriculation Examination, were also passed May 29th, 1897:

*Resolved,* That in addition to present exemptions from the Matriculation Examination, the Dental Board will accept pro tanto the matriculation, sessional and degree examinations in Arts course of any chartered University or college, when not less than 50% is attained in each subject.

*Resolved,* That in order to pass the Matriculation Examination a candidate is required to make an average of 50% on all papers, and not to fall below 25% in any paper. A candidate who fails to pass the examination, but who succeeds in making 50% or over, in three or more of the subjects, may either take the whole examination over again, or he may be allowed, if he prefers, to complete his examination by passing in those subjects in which he had fallen below 50%; in the latter case however, he will be required to make 50% in each subject.<sup>2</sup>

It would be interesting to find out how many of today's dental students—or faculty, for that matter—can read Voltaire in French, Virgil's *Æneid* in Latin, Xenophon's *Anabasis* in Greek or something in German.

Dalhousie's Faculty of Dentistry believed that students selected for the study of dentistry should possess not only the stated academic qualifications but also attributes that would enable them to make significant contributions to their profession and their community. In addition to the academic qualifications, applicants should be assessed on aptitude, character references, physical and mental fitness. The requirements established by the Faculty were necessary to prepare students for the successful completion of their professional courses. Faculty members considered it necessary that professional graduates be educated men and women capable of critical, original and objective thinking, aware of their professional responsibilities to society and willing to assume a position of leadership in their respective communities. They also considered it desirable that students include subjects from the humanities and the social sciences in their curriculum. Upon completion of these pre-professional

requirements, they should have demonstrated their ability and gained the maturity necessary to successfully complete their professional education.

The question of who should be admitted to dental school and who will be a successful dentist has worried dental educators for a very long time. It was already discussed in 1927:

#### INTELLIGENCE TESTS FOR DENTISTS

...some universities have set up what they are pleased to call intelligence tests for admission and more recently are changing the character of the tests given candidates for advanced standing and for graduation. It is thought that the essay form of examination test does not give a true gauge of the candidate's intelligence or knowledge of a subject and often works an injustice to the one who knows much more than what he has a chance to express. The new form of short answer test gives opportunity for a wider scope.

Intelligence tests for admission to the study of dentistry have not worked out at all satisfactorily. In one case the low grade intelligence candidates made the best showing in the term's work and the final examinations. This may not have been any fault of the system but of the test given. Or it may have proved that it does not require intelligence to study dentistry.

Many teachers of dentistry think there are even seventy-five percent of students whose capacity to study dentistry is questionable. No form of admission test yet devised has provided a plan of gauging the candidate's aptitude with manual tools nor is there any gauge of his powers of application to his studies. Occasionally and in fact generally old candidates in dentistry do wonderfully well in their studies but poorly in the application of these studies to practice, while young candidates who have a hard time to pass the admission test often do well in dental college studies and practice...<sup>3</sup>

It is of some comfort to dental educators that the admission tests for the study of dentistry given to the prospective students at the close of the 20th century can be considered a little more reliable than the "intelligence" tests of 1927.

#### LIFE OF A DENTAL STUDENT IN THE EARLY YEARS OF THE DENTAL SCHOOL

In 1923, sixty-eight dental students were in attendance at Dalhousie, which, Dean Ryan observed, fully taxed the clinical and laboratory facilities of the school and entailed assiduous attention on the part of its limited staff of instructors.<sup>4</sup> The Dean also commented, however, that a helpful spirit of co-operative endeavour characterized the relations of the faculty, staff and students. He regretted that all students did not reach the desired goal but

Halifax Oct. 13<sup>th</sup> 1908

Dr. Frank Woodbury,  
Dean of the Mar. Den. College,  
Halifax N.S.

Dear Sir—

We the undersigned students of the Mar. Den. College, humbly request to be exempted from the class in Medical Practical Physics in consideration of the fact that we find that to do our work thoroughly, our time is fully taken up with the amount of study already required of us; and also of the fact that up to this year this class has not been required by students of Medicine.

Will the Faculty please let us know their decision in this matter before Wednesday the 21<sup>st</sup> inst.

A Boyd  
H. S. Johnson  
A. H. Faulkner  
J. A. Burke  
Bruce Harvey

*Students voice their concern already in 1908*

believed that any student's failure was not accompanied by any feelings of resentment toward their teachers and the school. Probably the students were more docile, or a smaller school fostered better interpersonal relationships among the faculty, administration and students. When a similar situation developed in the 1980s and some students were unable to graduate with the rest of their classmates, a more spirited exchange of opinions arose between the faculty, administration and the students—including a fiery valedictory address. However, no one can say that the students were ever inhibited from voicing their opinion. Indeed, students have given faculty members their "input" about the curriculum since the first year of the Maritime Dental College.<sup>5</sup>

It is difficult to envisage today that as late as in 1936, Dean W.W. Woodbury reported to the Nova Scotia Dental Association that "there would be no Senior Class next year if we were not receiving students beyond our geographic area and this raises several vital questions: e.g. Is the dental need of the community being met? And why are not more students

attracted to dentistry?"<sup>6</sup>

However, Dean Woodbury touched upon in his Report the whole problem of dental curriculum, the type of student dental schools should attract and the relationship of dentistry to medicine:

That dental practice is largely reparative is inevitable at the present stage of our knowledge. This attracts the mechanically-minded, the surgeon type as it has been called. The etiology of the conditions that make dentistry as we know it necessary, is in the main unknown, and our etiologic problems are not likely to be solved by men engaged in reparative work. Their solution is not even steadily recognized as fundamental by the profession as a whole. Thus the type of student who is best qualified to carry on research almost invariably avoids dentistry and enters medicine, where the importance of etiologic investigation is more thoroughly understood. While the primary function of a dental college is to train competent operators, it should be taken for granted that dentistry welcomes students who are keenly interested in attacking its fundamental problems as well as those who are looking forward to clinical practice.

...Another matter concerning which we are likely to hear more in the near future, is the relation of dentistry to medicine. There is increasing interest in public health and it is recognized that dentistry can make its contribution. Economic and social pressure will hasten the study of this relationship.

The foregoing are cited as examples of the type of question that is engaging and must increasingly engage, the thought of dental education executives and faculties, and should also enlist the informed interest of our entire professional constituency.<sup>7</sup>

To develop in students the habit of reading and a familiarity with the literature of the profession, the Faculty required of each senior student a thesis upon a subject relating to dentistry. This thesis requirement, later implemented nation wide by the Canadian Dental Association, was still a prerequisite to graduation in the 1950s, after which various circumstances, including steady pressure for more "relevant" material in the curriculum, led to its being abolished.

In 1926, students' lives were made easier by the purchase of a variety of teaching equipment, such as an inlay drier and hot plate, a Hanau articulator, a Wilmot Castle sterilizer, a Vernon rotary-fan, various articulated demonstration metal models and instruments for demonstrating crown and bridge and prosthetic technic.<sup>8</sup> (One can only wonder what this all means to a student in the 1980s—apart from the Hanau articulator, of course!)

Materials and equipment were donated to the school: cements and amalgams for use in the health clinics from Caulk & Company, a Perfection Casting Machine from Patterson and Company, demonstrating material for

cast gold and porcelain dentures from Bosworth and Company, models for crown and bridge and operative technic demonstration from the School of Dentistry of the Medical College of Virginia, an articulator from the Snow Manufacturing Company and clasp attachments with demonstrating model from Feinberg and Co. (Regrettably from the students' and the Faculty's point of view, this charitable spirit disappeared, so that demonstration models for students must today be purchased from a shrinking budget.)

The students in the 1943-44 academic year were brought for the first time into contact with patients in the latter half of the second year instead of the first of the third year. This significant change in the curriculum gave the students earlier exposure to clinical work. According to Dean W.W. Woodbury, it gave the Faculty an opportunity to carry on a minor experiment in the field of clinical teaching: "The immediate educational objective of a dental school continues to be sound clinical teaching. We must turn out graduates equipped to enter clinical practice furnished with such diagnostic and technical competence as our present knowledge can supply."<sup>9</sup> Even today, almost half a century later, dental educators would agree.

#### THE SELECTION OF AND THE COST OF EDUCATING SUITABLE CANDIDATES

It has seldom been easy to become a dental student at Dalhousie because the competition has been so intense. Indeed, over the years it actually became increasingly difficult for the Faculty to select the incoming classes from an ever-expanding pool of qualified applicants:

In the selection of class for 1948-49 we were again faced with applications which were far in excess of our accommodation. The selection was restricted to candidates from the various Maritime Provinces and Newfoundland. There were well over 200 applicants from all sections of the United States and Canada, in addition to the large group from this area. We were again restricted, because of space and facilities, to an entering class of twelve, who were selected from a final group of about sixty candidates... nearly all were given personal interviews by some members of the University staff.<sup>10</sup>

The W.K. Kellogg Foundation offered in 1942 a grant of \$10,000 to the Faculty of Dentistry, to be used for loans and scholarships for dental students. This was a considerable sum of money in those days, when the average annual net income of a Maritime dentist was reported to be \$4,700 in 1944. As the Faculty could specify its own terms of administration of this grant, it was able to offer the students of colleges that gave acceptable pre-dental courses in the Maritime provinces and Newfoundland a number of first-year scholarships to the amount of \$400 each. The scholarships were so

administered as to attract exceptional students otherwise unable to enter the field of dentistry. If \$400 seems rather insignificant today, one must remember that from the late 1930s to the mid-1940s the tuition fee in the Faculty of Dentistry was \$250, payable each year by those taking the regular prescribed curriculum, and included tuition, hospitals, laboratories, and the regular sessional examinations. Forty years later dental students were expected to pay an annual fee of \$2,148!

In the ten years from 1952-53 to 1962-63, the budgeted expenditure per student rose from approximately \$950 to slightly over \$4,000. And yet, at the annual Faculty meeting in May 1963, Dean McLean declared that he saw an urgent need for an immediate increase to a figure in excess of \$5,000, and this without providing any frills or services beyond what is considered standard.

A Dalhousie University Brief presented in 1961 to the Royal Commission on Health Services gives a glimpse of the student population in the Faculty of Dentistry, their geographical distribution, the level of enrollment, the cost of operating a dental school, the success of the student subsidization programmes:

...135. Enrolment: The following Table shows the total student enrolment in the Faculty of Dentistry at Dalhousie University from 1929-30 until the current session, 1961-62:

Year	Student Enrolment	Year	Student Enrolment	Year	Student Enrolment
1929-30	30	1940-41	31	1951-52	49
30-31	27	41-42	25	52-53	50
31-32	21	42-43	39*	53-54	50
32-33	21	43-44	22	54-55	48
33-34	33	44-45	20	55-56	47
34-35	39	45-46	27	56-57	47
35-36	54	46-47	37	57-58	53
36-37	51	47-48	37	58-59	55
37-38	47	48-49	41	59-60	59
38-39	37	49-50	48	60-61	53
39-40	35	50-51	48	61-62	60

\* *Special accelerated classes during war years.*

...143. Experience with veteran students in the dental schools following the Second World War would substantiate the desirability of finding financial aid for students of limited means. Many were excellent students who would not have been able to attend university had it not been for the subsidization provided through the Department of Veterans' Affairs.

144. Two subsidization programmes are now available to students in this region. One is offered by the Government of Newfoundland to students from that Province. The dental student is subsidized to the extent of twelve hundred dollars a year for four years, in return for which he is required to serve for four years in the province, two of which must be with the Provincial Public Health Department. The other plan is that of the Royal Canadian Dental Corps in which almost the entire cost of dental education, plus pay and allowances, and other benefits are provided for students who undertake to serve in the Corps for a period of five years.

145. Both of these programmes have excellent merit. They provide personnel for the departments, and an educational opportunity for students who might not otherwise be able to undertake the programme of studies. On the other hand, the plans do have limitations. The potential pool of practitioners for the area is reduced by the Army plan, and in both schemes some potential teachers, research workers, and specialists are diverted from early entrance into the area of their special aptitudes, and may never return to it...

...162. Comparisons of the cost per student and sources of University revenue for the academic years 1954-55, and 1961-62 are as follows:

	1954-55	1961-62
Cost per student	\$1,219.96	\$4,227.66
Income per student:		
By student fees	398.00	450.00
Government grants	428.80	2438.59
University resources	393.16	1339.07*
Total	\$1,219.96	\$4,227.66

\*Includes a deficit for the Faculty Budget in excess of \$50,000, or about \$950 per student.<sup>11</sup>

Although the Faculty has always tried to have an appropriate geographical distribution of qualified students from the different parts of Atlantic Canada, this was not always attainable, particularly when in the earlier days the Faculty tried to attract more young women into the profession. Although the Faculty's first woman student, Arrabelle C. Mackenzie, graduated in 1919, in 1927 Dean Thomson had occasion to remark that "when the service of women are needed in preventive and public health dentistry which is peculiarly their field ... we have no lady students [even though] in our school they are received on the same conditions as men, and enjoy the same university privileges."<sup>12</sup> In recent times the proportion of young women entering dentistry changed





*Dentistry football team, early 1960s. Standing (Left to right): J. Cleary, H. Amos, J. Cox, M. Wong, D. Gardner, J. Dowd, J. Roach, B. Rondeau, C. Hull, A. Brothers, B. Hart. Front row (Left to right): B. Weeks, F. Dugan, A. McLean, J. Thompson, J. McNeil, W. Brymer, J. Robertson, J. Miner*

appreciably: in 1988-89, there were fifteen women in a class of twenty-nine second-year dentistry students.

The first students from Nova Scotia, Mr. A.B. Crowe, Mr. A.W. Faulkner and Mr. H.S. Tolson, were admitted in 1908; the first student from Newfoundland, Mr. J.A. Burke, was likewise admitted in 1908. However, it was not until 1911 that the first students were admitted from New Brunswick, Mr. G.A. Sproul and Mr. P.H. Warren, and the first student from Prince Edward Island., Mr. J.S. Bagnall. However, it was not always easy to have a class from students of Atlantic region, or indeed, from Canada. During the Depression years many dental classes consisted mostly of students from the United States; the class of 1937 graduated only American students.

### SOCIAL AND SPORT ACTIVITIES

In spite of the heavy demands of their academic work, dentistry and dental hygiene students have found time for sport and social activities. In spite of their relatively small numbers, they have very successfully represented dentistry in interfaculty sport events, including their unprecedented capturing in 1980 of all three Intramural Supremacy Awards. This participation in sport activities had a tradition of long standing.

For new and returning students, events during Orientation Week have been very important, and students have welcomed participation from both staff and faculty members.

Although against the rules and regulations (which of course are always meant to be broken or at least bent), "illegal" notices were sometimes posted in the elevators to cheer-up the students from the drudgery of everyday struggle.

Other, more professionally made, and officially approved notices

tempted the unwary to a free champagne publication party organized by the *Dalhousie Dental Journal*. How the times changed! Even at the Dental Balls, which were originally held in the Dalhousie Gymnasium before they were moved to a more appropriate milieu of Halifax hotels, the serving of alcohol was frowned upon by the University authorities. However, another tradition had to be given up. Namely, the Sunday afternoon tea parties arranged for students at Dean McLean's residence. The classes simply became too large.

### DALHOUSIE DENTAL JOURNAL

*Dalhousie Dental Journal*, a publication of the Dalhousie Dental Student Society, had a long and proud tradition in Canadian undergraduate dental students' journalism. First published in 1960 under the editorship of Robert E. Hoar (Class of '62), it was to serve a three-fold purpose:

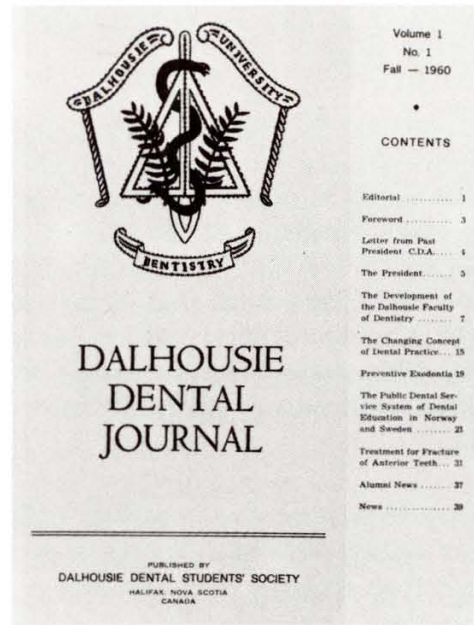
One of communication, an essential in a profession such as ours, it will allow the student to publish his work, such as a seminar or a case history which he comes in contact with in the diagnostic clinic and the other departments of the school. Most important of all, the undergraduate will receive experience in Journal work which will give him more confidence to write dental articles after his graduation.<sup>13</sup>

*Dalhousie Dental Journal* was the second undergraduate dental publication in Canada (after McGill's), and it provides a fascinating glimpse into the life of the dental school and its students. In one of the earliest issues, the Dalhousie Dental Society crest and its symbolism was explained by John R. Schiffmann:

The center is the staff of Aesculapus, the symbol of healing and treating ills. Two triangles with a common side on the staff constitute 3 bars. The common side, the center of both is Charity, the love of fellowman and the love of one's profession. The side bars constitute the many years of *Concentration* required and the *Courage* possessed by a man in pursuing this tedious profession.

Through the two triangles are the common fern, which grows wild throughout the woodlands of Nova Scotia. At the bottom center is the pointed bur. The pillars at the sides are entwined to represent the strength of knowledge which leads up to and firmly supports the truth which is sought in the teachings of the University.<sup>14</sup>

The *Journal* issues had news from social events such as the Dental Ball, a Banquet or Awards Nights, to students' participation in dental research, scientific articles, sport achievements, news from the library or continuing



*The first issue of Dalhousie Dental Journal from 1960*

education and listings of the prize winners of the ever-popular Dentistry and Dental Hygiene Table Clinic presentations.

Efforts to improve communication between students and the Faculty led to a 1969 review of student participation in Faculty deliberations. For many years dentistry students had been members of one or more Faculty committees, but it was believed that they could and should more meaningfully contribute in other aspects of programme development. After consultation with student representatives, there was an extension of student membership to a number of additional Faculty committees. This became an ongoing process, and the student representatives became gradually involved up to the most important Faculty deliberations. They had representation on the Faculty Council and the committee to select a new dean for the Faculty.

#### LIFE IN THE EXPANDED DENTAL FACILITIES

The expanded dentistry building enabled students in the third and fourth years to spend more time working with patients. Now, a student from fourth year need no longer share a clinical cubicle with someone from third year. All dental hygiene students were assigned their own cubicle as well. Thus, the shortage of clinical practice time, which had been a significant deficiency for the students, was alleviated. Likewise, the students were encouraged to delegate more work to dental technicians, and eventually all the technical work was completed intramurally by dental technicians. These policies were consistent with the general philosophy of the teaching

---

programme as described in the Faculty's 1961 brief to the Royal Commission on Health Sciences:

124. It is believed that the teaching programme could be more efficient and more effective if auxiliary personnel could be employed in increasing numbers. The dental assistant, dental hygienist, and dental technician could be used to assist the student in many additional clinical duties, thus relieving him of non-essential tasks which he now must undertake personally. At the same time, the student would be trained to use auxiliaries more effectively in his subsequent practice. At present, neither the trained personnel nor finances are available in sufficient quantity for this purpose.<sup>15</sup>

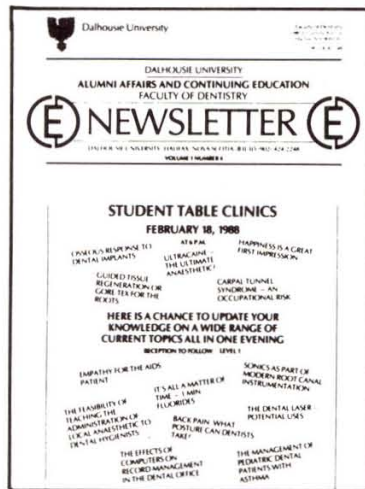
Also, a new clinical programme was initiated, with students grouped in modules of six. Each module was comprised of two second-year dental hygiene students and two third-year and two fourth-year dentistry students, working together as a group. It was hoped that sharing the patients would lead to better understanding of the interaction of practitioners working together. This vertical group concept was one of the more significant developments as a direct result of the expanded clinical facilities. The concept was initiated on a trial basis during the second term of 1980-81 and continued during the full 1981-82 academic year. Although patients were assigned to an individual student rather than to a group, group members were encouraged to transfer patients and delegate duties to other members of the vertical group, to facilitate progress of the treatment.

The second-year students began a clinical preventive dentistry course that integrated diagnosis, radiology, oral hygiene, periodontics and operative dentistry within one cohesive faculty team. It was hoped that this comprehensive "first exposure" to patient care would help the students see the correlation of each patient's overall treatment needs. As usual, the perceptions of the faculty and those of at least some of the students may have been slightly apart.

To alleviate the students' work in the clinic, the Department of Restorative Dentistry employed Block Counsellors to facilitate student and patient progress. The students were helped to learn an organized approach to patient care. Any typical problems, such as inappropriate patient load, were identified, to permit the student to meet requirements, overcome scheduling problems, and complete delayed treatment planning. Treatment related to complexity of problems was to be solved in an mutually agreed approach between the students and their Block Counsellor.

Under the leadership of Dr. D.G. Pentz, Assistant Dean for Student Affairs, and his successor Dr. R.M. MacDonald, the so-called Faculty Advisor programme continued to flourish and was considered a useful way to help students in their professional education.

In the late 1980s the Faculty initiated programmes to teach students how,



*Student table clinics*



*A table clinic presentation*

by applying common-sense principles to determine when to wear gloves, masks and glasses, they could reduce their risk of getting hepatitis or other diseases while treating their patients.

One of the enjoyable experiences was the Student Exchange Programme between Dalhousie University and the Universities of Birmingham, Dundee, and Wales, in the United Kingdom. The summer exchange students conducted their elective research projects in the Biomaterials Research Laboratory.

Summer Student Research positions for Dalhousie dental and dental hygiene students was another innovative and successful venture. Thus, in the summer of 1988, twelve research positions involving clinical, educational, or laboratory research projects were available for the students. These positions were very much sought after because they gave students summer employment in an interesting area that allowed them to work more

personally with a faculty member and gave them the opportunity to compete and represent their school at international research meetings. One dental undergraduate student, Kerim M. Özcan, became the first Canadian dental student to receive one of the very prestigious International Research Awards given by the IADR.

### THE ANNUAL TABLE CLINIC NIGHT

One other student activity needs to be mentioned: the Annual Table Clinic Night. Open not only to Dalhousie students and Faculty but also to the general public, it allowed students to be clinician-instructors for an evening and enlighten the public about dentistry and dental hygiene.

The idea of students giving table clinics to faculty and fellow students was raised in 1961 by director of the School of Dental Hygiene Janet Burnham, who noted that giving a table clinic was encouraged in the final year of the dental hygiene programme. After considerable discussion, the Faculty agreed that such a table clinic presentation would be a desirable experience for dental students as well. In 1986 and in 1987, Halifax Cablevision recorded three half-hour presentations covering nine of the table clinics which were chosen for their interest to the general public. These shows, hosted by Dr. John Sterrett and by Ms. Glenda Butt (who chaired the Table Clinic Committee), were shown throughout the summer months in 1987 and 1988 on the community channel. Credit for the success of the Annual Table Clinics Night must be given to the organization efforts of the Student Table Clinics Committee members, the Faculty advisors and particularly to the enthusiasm and endeavour of the student clinicians.

Students, after four years at the Faculty of Dentistry, were finally able to claim their long-sought reward: a Dalhousie DDS, scarlet silk hood with border of gold silk, or a dental hygiene diploma. Not recognized at that time was the truism that they will consider their university days as the best years of their lives—but usually not until they reach their middle-age crisis.

### — THE PATIENTS —

The Faculty has had to ensure that its students have a “mix” of patients so that they were exposed to the broadest spectrum of oral diseases possible. Thus, certain selectivity has had to be practiced in choosing patients for instructional purposes. The Faculty has also been committed to providing comprehensive treatment to all patients accepted into the teaching programme, and it has not been easy to combine a teaching and a service clinic. Sometimes it was not easy to explain to prospective patients that the Dalhousie Dental Clinic was manned by dental students who were not able to treat everyone and who, because they were learning procedures, would work slowly. Therefore, the clinic could not treat as many patients as one might have wished. It was also natural that an occasional potential new

patient was disappointed because a procedure could not have been initiated immediately and he had to be placed on a waiting list.

Dentistry certainly made tremendous progress in the last few decades in the delivery of dental services to the public. In less than two decades, the level of dental health awareness plus the advent of new procedures and services has brought the profession to the forefront of the health care field. The public certainly was made aware that dentistry today was painless (well, almost); various newspaper articles affirmed this attitude.

To facilitate informing the patients, "Becoming a Patient at Dalhousie Dentistry Patient Care Centre" was developed by the Division of Instructional Resources, in 1981. The brochure explained that the clinic offered complete dental services.

Expansion of the dental building has made an enhanced clinical curriculum possible. One goal of the new clinical programme was to promote improved patient care. The computerized clinic management system allowed the student to manage a patient's care more effectively. It also allowed the faculty to monitor student's progress as well as the patient's diagnostic and treatment information.

Many little episodes enlivened the students' routine. One patient had to leave in the middle of a very important appointment because his wife called him to say that his cat delivered a litter; another had to cancel her appointment with a fourth-year student—because she had a bad toothache. There was the famous (or infamous) case of mistaken identity: A husband and wife who had new dentures delivered by two different students on the same day rushed furiously back to the clinic the next morning, outraged with the poor fit of their new prostheses. Neither the students nor the faculty could explain how such an abominable piece of shoddy work could have been delivered—how it could escape the vigilant eye of the chits, the criteria, the computer—until some unknown person with the reasoning powers of a Sherlock Holmes deduced what happened and solved the mystery of the "switched plate."

Patient-student relationships on the whole have been excellent. Students have been known to sneak out of the clinic to feed the almost expired parking meters for their patients. Some students even married one of their patients (the ultimate commitment to the total patient care concept)! And many patients tended to protect "their" students "against" the Faculty. Every summer the clinic had a patient who would come back with some minor problem but decided to wait until "his" student had graduated. Thus, in the patient's mind, at least, the student would not have been penalized. (He wouldn't, but that still did not alter the fact.) One example will suffice to show this patient-student interaction:

Dear Dr. ...:

I'm writing for two reasons, mainly. First, I want to tell you that I will not be able to continue attending the clinic. I have recently

started seeing a physiotherapist, which means that I will be missing time from work. It will be impossible to be away the two half days that the clinic requires plus the time for physiotherapy.

The other reason I'm writing, and more importantly to me, is that I regret stopping in the middle of...work. He has done a lot of preparatory work leading up to this coming semester...and has been extremely dedicated in his work and I find him a very personable young man. I would not like to think that my not returning would have an adverse affect on...progress...<sup>16</sup>

Some of the young patients had to be really dedicated to their students—particularly during impression making!

Over the years one of the most rewarding experiences a student could have had was a note of appreciation from his patient. Since it is unfortunately easier for the human nature to sit down and write a letter of complaint or criticism than a letter of appreciation, it is truly amazing how many "thank you" notes and small tokens of appreciation (i.e., cakes, lobsters, etc.) were received by the students, Faculty, or the Director of Clinics. (It is a pity that nobody took care of keeping these notes over the years and thus preserve them for the future.)

Nevertheless, some misunderstandings were inevitable. For instance, when Dr. Art Ervin, the epitome of the kind and understanding dentist, tried valiantly to explain to an elderly woman who came into the clinic for treatment that she will need pre-prosthetic surgery before the construction of dentures, the equally kind but not understanding patient came back with the classical statement: "Oh for \_\_\_\_ sake, can't you fit the plates to me instead of fitting me to the plates?" Even Art—as the legend goes—became momentarily speechless against this logic.

But no matter how sophisticated the new technique may have been, the Faculty stressed the philosophy that patients must be considered as individuals, with attention given to all of their problems. They must not be considered as "cases," collections of pathological processes, or as potential providers of chits and criteria requirements. This philosophy of providing a continuity of care and concern for the whole patient, considered as a person having human dignity, was already formulated in the Code of Ethics of the Dental Association of the Province of Nova Scotia, which were adopted in 1893:

CODE OF ETHICS OF THE  
DENTAL ASSOCIATION OF THE PROVINCE OF NOVA SCOTIA  
ADOPTED 1893  
THE DUTIES OF THE PROFESSION TO THEIR PATIENTS

Section 1. The dentist should be ever ready to respond to the wants of his patrons, and should fully recognize the obligations involved in the discharge of his duties towards them. As they are in



most cases unable to correctly estimate the character of his operations, his own sense of right must guarantee faithfulness in their performance. His manner should be firm, yet kind and sympathising, so as to gain the respect and confidence of his patients; and even the simplest case committed to his care should receive the attention which is due to operations performed on living, sensitive tissue.

Sec. 2 It is not to be expected that the patient will possess a very extended, or a very accurate knowledge of professional matters. The dentist should make due allowance for this, patiently explaining many things which might seem quite clear to himself, thus endeavoring to educate the public mind so that it properly appreciate the beneficent efforts of our profession. He should encourage no false hopes by promising success, when, in the nature of the case, there is uncertainty.

Sec. 3 The dentist should be temperate in all things, keeping both mind and body in the best possible health, that his patients may have the benefit of that clearness of judgement and skill which is their right.

#### MAINTAINING PROFESSIONAL CHARACTER

Sec. 4. A member of the dental profession is bound to maintain its honor, and to labor earnestly to extend its sphere of usefulness. He should avoid everything in language and conduct calculated to dishonor his profession, and should ever manifest a due respect for his brethren.

Sec. 5. The person and office arrangements of the dentist should indicate that he is a gentleman; and he should maintain a high toned moral character.

Sec. 6. It is unprofessional to resort to public advertisements, such as cards, hand bills, posters or signs, calling attention to peculiar styles of work, prices for services, special modes of operating, or to claim superiority over neighboring practitioners; to publish reports of cases or certificates in public prints; to go from house to house soliciting or performing operations, to circulate nostrums, or to perform any other similar acts. But nothing in this section shall be so construed as to imply that it is unprofessional for dentists to announce in the public prints, or by card, simply their name, occupations and place of business; or, in the same manner, to announce their removal, absence from or return to business; or, to issue to their patients appointment cards, having a fee bill for professional services thereon.

Sec. 7. When consulted by the patient of another practitioner, the dentist should guard against inquiries or hints disparaging to the family dentist, or calculated to weaken the patient's confidence in him; and if the interests of the patient be not endangered thereby, the case should be temporarily treated and referred again to the family dentist.

Sec. 8. When general rules shall have been adopted by members practicing in the same locality, in relation to fees, it is unprofessional and dishonorable for persons subscribing to such rules to depart from them, except when variations of circumstances require it. It is regarded as unprofessional to warrant operations or work as an inducement to patronage.

Sec. 9. Dental Surgery is a specialty of Medical Science. Physicians and Dentists should both bear this in mind.

The dentist is professionally limited to the disease of dental organs and the mouth. With these he should be more familiar than the general practitioner is expected to be; and while he recognizes the superiority of the physician in regard to the diseases of the general system, the latter is under equal obligations to respect his higher attainments in his specialty. Where this principle governs, there can be no conflict, or even diversity of professional interests.

Sec. 10. Dentists are frequently witnesses, and at the same time the best judges, of the impositions perpetrated by quacks; and it is their duty to enlighten and warn the public in regard to them. For this and the many other benefits conferred by the competent, honorable dentist, the profession is entitled to the confidence and respect of the public, who should always discriminate in favor of the true man of science and integrity, and against the empiric and imposter. The public has no right to tax the time and talents of the profession in examinations, prescriptions, or in any way, without proper remuneration.<sup>17</sup>

### — THE STAFF —

Most dental schools appear to have had early in their history a marvellous lady, usually the first full-time employee in the school, who for all practical purposes would “run” the institution. At Dalhousie’s Faculty of Dentistry, this woman was Ms. Gladys M. Littler, who joined the Faculty in 1911—and thus was able to see the first class graduate—and retired in 1958, after 47 years of dedicated service under the Faculty’s first six deans. Actually Ms. Littler did not work only for the deans of the Faculty of Dentistry. In 1911 she provided secretarial assistance to the Faculties of Medicine and of Law and, on special occasions, to the office of the president of Dalhousie. Also, until 1952, she was responsible for “taking” and developing all x-rays in the dental clinic. A truly remarkable woman! As Dr. G. Pentz so fittingly stated at the convocation address in 1989: “when you think of what it takes to run a dental school today, you have to appreciate those people (i.e. the support staff). They did it all. Deans have always thought that they ran dental schools. That’s an illusion—yesterday it was Gladys Littler and Margaret MacRae, (who was the first clinical receptionist and dental assistant), today Nancy Webb and Lorna Fraser.”

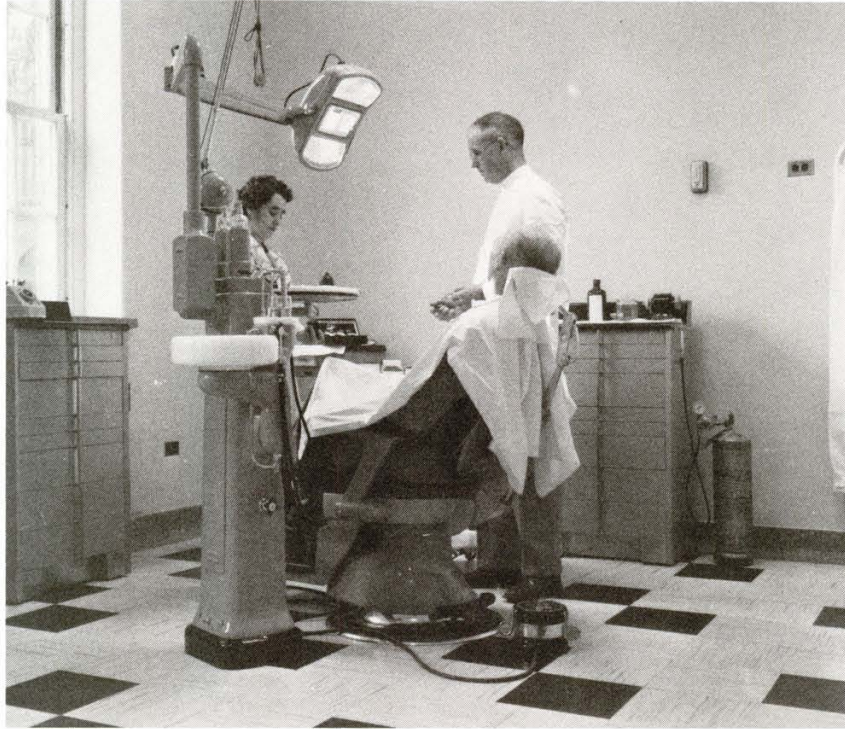
Gladys Littler’s life was devoted to the dental school and particularly to the students, whom she loved. She acted as their mother, counsellor and

friend, and even remembered “her” students in her will, making a bequest to the dental school which was to be directed to an effort which would benefit students. Thus, in 1987 the Gladys M. Littler Fund Committee was formed to oversee the establishment and the operating of a video library that would include pertinent dental topics for students, and a Student Audio-Visual Room in memory of Ms. Littler was officially opened in February 1988.

Although Ms. Littler certainly saw great changes take place in the dental school between her initial appointment in 1911 and her retirement in 1958, in the next thirty years, the pace of change was, if anything, even faster. However, these changes were only slowly reflected in the size of the administrative staff or the dental clinic staff. Even in 1968, ten years after Ms. Littler’s retirement, the administrative support staff consisted only of the Dean’s Secretary, Ms. Judith Morley, and the Administrative Secretary. This latter position was filled by another of those who made a significant contribution to the smooth flow of the administration of the Faculty, Leonard V. Perry. For ten years, Mr. Perry, who had been the Business College Officer at the Royal Military College, Kingston, before joining the staff of the Faculty of Dentistry, quietly and efficiently provided an invaluable service to the Faculty. In 1978, only three persons comprised the administrative staff of the Dean’s Office. The great increase in support staff occurred in the next few years, so that by 1984 each Division could rely upon its own secretarial staff, and the Dean’s Office staff numbered sixteen.

Starting in 1979—mainly due to the efforts of Dr. John Eisner and with the active support from the administrative area—*Bits and Bites*, a newsletter type of publication, brought its readers news about the everyday, everchanging life within the Dentistry building: changes in faculty and staff, social news, items of personal interest (births, marriages, the glories or defeats in sporting activities). *Bits and Bites* provided information about the professional activities of faculty members, whether presenting papers at national or international meetings, or their publications in professional journals, and contained such regular features as News from the Dental Librarian, News from DIR, News from Continuing Education, Computer News, Research Notes, and Dates to Remember. Regrettably, the extremely informative newsletter ceased to be published after approximately eight years of existence. (Another intramural publication, *Articulations*, a newsletter from the Department of Restorative Dentistry, began in the early 1980s and was regularly published until Dr. D.V. Chaytor resigned from the Chairmanship of the Restorative Department.)

Regrettably, by the mid-1980s, the constant budgetary problems facing the University in general and the Faculty of Dentistry in particular, forced staff reductions. The University employed an American firm, Ritchie and Associates, to do a detailed efficiency (time-and-motion) study of Dalhousie employees, in an effort to rationalize the reductions (however, the study itself adversely affected staff morale). Since the 1986-87 Academic Plan for



*Ms. M. Christie with Dr. K. Kerr*

the Faculty of Dentistry was written, the secretarial and clerical support staff was reduced by six positions.

The size of the dental clinic staff also grew slowly. Ms. Sylvia MacPherson (née Macintosh) and Ms. Marion Christie were asked to share other duties as well.

In 1976, there were ten staff members, including four dental assistants. Mr. E.J. Purcell was responsible for taking care of the storage room and supplies. Only a few years later the clinic had many more dental assistants who were able to help the students.

Between 1980 and 1982, in anticipation of the opening of the new dental building, 31 new clinic positions were created. In February of 1982 a major reorganization took place in the area of clinic administration, as it became evident that with the substantial growth and changes that were occurring, a reorganization of the levels of responsibility and lines of communication within the clinic would have to take place. 1982-83 marked the beginning of a leveling off period with respect to increases in clinic personnel. In 1988, there were 45 members of the clinic staff, including receptionists, cashiers, patients records staff, data entry and patient assignment staff, dental assistants (the student's last court of appeal for help), Central Sterilizing Unit staff, and radiology staff.

Last but not least one must not forget the Front Desk Security Commissionaires. Always on time at their station, and making the rounds to see that all the occupants of the dentistry building were safe and that all



*Four handed dentistry*

was in order. (One would like to know how many faculty members Walter Feely helped over the years in opening their offices because they have left their keys at home.)

The numerous dental assistants, clerks, secretaries, the administrative support staff, the computer personnel, the dental stores staff, the maintenance staff, the "security," all formed the necessary support for the students, the patients, and the faculty. That they have been the essential factor responsible throughout the years for the school's smooth operation was recognized by the Faculty's honouring in the spring of 1990 nineteen staff and administrators who had worked ten or more years consecutively in the Faculty:

Lloyd Fultz	dental production lab	23 years
Ida Blakeney	dental clinic	21 years
David Mercer	dean's office	18 years
Lorna Fraser	dean's office	16 years
Sandy McKay	dental clinic	16 years
Marilyn Klein	instructional resources	15 years
Marion Gillis	dental production lab	14 years
Bruce Moxley	instructional development	14 years
Ruth MacLean	oral biology	13 years
Cathy Bradley-Thibodeau	dental clinic	12 years
Heather Haskins	dental clinic	12 years
Valerie Smyth	dental clinic	12 years
Cecilia Fry	dental clinic	11 years
Doris Mahoney	oral surgery	11 years
David Allen	dental production lab	10 years
Gordon Hall	applied oral science	10 years
Jean Hames	applied oral science	10 years
Archie Hutchison	dental clinic	10 years
Edwinna Munroe	dental clinic	10 years <sup>18</sup>

---

---

THE LABORATORIES:  
DENTAL , ORAL PATHOLOGY AND DENTAL MATERIALS

The Production Laboratory, under its official name (“Dental Lab” to the rest of the Faculty, staff and students), started as a one-man operation. The first dental technician employed by the Faculty of Dentistry was Mr. Ollie Gardner, who was listed in the 1912-13 Calendar as an Assistant Demonstrator in Prosthetic Dentistry. Upon his retirement in 1946, Mr. Charlie Arthur was appointed as his replacement. Mr. Arthur retired due to ill health in 1956 and the Faculty’s new dental technician became Mr. Joe MacPherson. Known simply as “Mr. Mac” to generations of dental students, he became to them the last court of appeal for help. Whether the student had a problem with a broken cast, had overpolished a contact point of an inlay, or could not produce a protrusive balance on the distolingual cusp of a second mandibular molar, Mr. Mac was there to help and to fix whatever needed fixing (including the student’s Hanau torch, an articulator, or a malfunctioning handpiece).

Over the years, the dental laboratory grew slowly from a one-person operation, until the completion of the newest dentistry building changed completely its modus operandi. Having begun with a small, personal and almost relaxed atmosphere, as a unit that was mainly seen as fulfilling a support, trouble-shooting role, the Dental Lab evolved into a large, more business-like unit and was renamed the “Production Laboratory.” A decision was reached by the Faculty that, whenever feasible, all dental laboratory work should be delegated by the students to the dental technicians and that this delegated work should be completed intramurally. To accommodate this policy the Production Laboratory grew very rapidly.

The dental technician is often referred to as the silent partner of the dental team. There is no question that over the years the women and men who worked in the Dalhousie dental laboratory contributed their share to the education of young men and women in the science and art of dental laboratory technology as it applied to dentistry and dental hygiene. Their constant willingness to help “their” students is gratefully remembered and readily acknowledged by the graduates. However, the dental technicians’ role did not end here. They were equally important (albeit usually invisible) partners in helping faculty members create a seemingly endless number of demonstration models for undergraduate programmes and for the presentations and publications made by faculty members in their quest for scholarly activities.

The Oral Pathology Laboratory employed the other technicians who worked for the Faculty of Dentistry. These were trained in histopathology and/or electromicroscopy. One of the first technicians, who worked for the Division of Oral Pathology, was Mr. Michael Blaszczynski (he replaced a female technician whose identity could not be ascertained). In the summer of 1973, Ms. Enid Jimenez replaced Mr. Blaszczynski, eventually becoming

the head technician. The growth of the Faculty allowed the Oral Pathology Laboratory to hire another technician, Ms. Mary Wile. She eventually became the chief pathology technician and Ms. Lynn Grant was hired as an additional technician. Throughout the years, Dentistry's Oral Pathology Laboratory has enjoyed a good relationship with the Victoria General Hospital Pathology Laboratory and with the Department of Pathology of the Faculty of Medicine. When the Faculty of Dentistry did not have an oral pathology technician or the Oral Pathology Laboratory had more work than it could handle, the Division of Oral Pathology could always rely on the other pathology laboratories to lend support.

Finally, there was a group of research technicians who worked for the Department of Applied Oral Sciences. The first full-time research laboratory technician was Ms. Jean Callahan, who was employed by the Faculty in the late 1950s. However, as late as the 1970s the Faculty had listed only Mr. Edward L. Milne as a dental material technician. In 1991, Mr. J. Dwyer, Ms. P. Hidi, Mr. D. Hilchey, Ms. K. Robertson and Ms. B. Ruszel were listed as research technicians. Mr. G.C. Hall was listed as a technologist and Ms. M.F. Langman as a staff technician. The contribution to the Faculty research by this group of individuals was considerable indeed.

#### THE LIBRARY

The dental school's library has, from the outset, been housed with that of the medical school, an arrangement that proved to be beneficial to its users. That the beginnings of the dental library were humble indeed by today's standards can be seen by perusing some of the early annual reports of the Library Committee.

Dalhousie University  
May 29th, 1922

#### Report of Library Committee

The Library Committee beg to report that because of lack of funds, their allocation being already overdrawn, additions to the Library have this year not been very extensive.

7 Recent Publications have been added at a cost of \$31.25  
4 Books and 4 Pamphlets donated  
Our subscriptions to 4 Current Magazines amount to \$15.15  
A number of Back Numbers of Current Magazines donated  
Subscription to 2nd. volume of the Dental Index two copies of which have been secured and one extra copy of 1st. volume, giving an extra copy of both the 1st. & 2nd volume, which are kept in the vault.

No magazines have been bound this year.

The books for the prizes have been procured, and are now in the possession of the librarian awaiting the names of the students to whom they are to be awarded.

Herewith appended is a list of some half dozen of the leading Current Magazines and the cost of procuring the necessary numbers of volumes to complete the publication.

The possession of the Dental Index makes it very desirable the above volumes should be procured.

Respectfully submitted,  
F.W. Ryan, Chairman<sup>19</sup>

In 1979-80, the serials-acquisitions budget for the Faculty of Dentistry reached the sum of \$5,650 and in 1988-89 this figure stood at \$15,400; the book budget for 1979-80 and 1988-89 stood at \$3,400 and \$3,900, respectively.

	Serials Received (Subscriptions)		Books Purchased and Processed	
	Dental	Total for Library	Dental	Total for Library
1987-88	171	2695	66	1013
1986-87	208	2871	58	1588
1985-86	213	2934	103	1588
1984-85	214	2941	81	1649
1983-84	219	2813	139	n/a <sup>20</sup>

One of the earliest surviving comments pertaining to the dental library appears in Dr. Ryan's 1924 report to the Nova Scotia Dental Association. It was his conviction that an important factor in the education of Dalhousie dental students must be an excellent dental library, and he did not spare any efforts to build its collection. At the same time, he encouraged the dental profession at large to fully avail themselves of the advantages which the dental library could offer them as a source of refreshing and revivifying enthusiasm for their work. He thought that it would be deplorable if practising dentists did not grasp such an opportunity.<sup>21</sup>

The Medical-Dental Library was first located in the Forrest Building. This was rather convenient for the Faculty of Dentistry, as it was located in the same building. In 1932, the Faculty had a Library Committee which "has been quite active and we are pleased to note an increased interest in and use of the library by our students."<sup>22</sup> In 1933, important additions to the dental collection were made and the usual number of journals were bound. A gift of twenty-five copies of the *British Dental Journal* and *Dental Record* was received from the British Dental Association. Also, this same year, the Psi Omega Fraternity presented, through Dr. Hennigar, \$10 for the purchase of books. Yes, a \$10 donation was sufficient for the purchase of books in



1933. One must remember that it was the same year in which Dr. A.W. Faulkner had to defend the reason for the projected increase in the annual CDA dues from fifty cents to one dollar per year. He had to defend this increase in reminding the members of the Nova Scotia Dental Association that one half of this projected increase in dues would be allocated as a Journal subscription.<sup>23</sup>

In 1938, Dalhousie's first woman graduate, Dr. Arrabelle C. Mackenzie, donated a "generous cheque"<sup>24</sup> to the dental library at the time of her class reunion. The library for the dental school was now situated in the Medical-Dental Library Building, which was designed, in 1939, to accommodate classes of approximately twelve dental and fifty to sixty medical students. Accommodations were overtaxed and provision of additional space became an essential priority for both faculties. The written records of the Medical-Dental Library provide a glimpse of a rather Spartan existence and conditions, which before the 1960s were partly due to decades of understaffing.<sup>25</sup>

This situation changed drastically when the library moved, in July 1967, into the newly opened W.K. Kellogg Health Sciences Library in the Tupper Building. It was perhaps in anticipation of this that in 1965 Dr. Terrisita Contreras became the first Dental Librarian. Since then the Faculty has been extremely fortunate to have the services of a series of dental librarians of outstanding qualifications and personal qualities: Ms. Wendy Scott (August 1971 - November 1972), Mr. David Noble (January 1973 - January 1976), Ms. Patricia Goddard (August 1976 - December 1979), Ms. Cathy Krause (May 1980 - June 1983), Ms. Jackie MacDonald (July 1983 - June 1985), and Mr. Patrick Ellis (June 1985 - ). They have thrived on challenge, cheerfully and efficiently securing books or magazines no matter how little known they may be or in whatever obscure language they are printed.

The Dental Library has not only served the students and faculty members, but has also—in realization of Dean Ryan's hope—offered an efficient information service to the profession in the Atlantic provinces, providing literature searches and loans of books or photocopies of articles.

#### THE DIVISION OF INSTRUCTIONAL RESOURCES (DIR)

Few areas within the Faculty of Dentistry had a more interesting, albeit uneven, history than DIR.

Not until the 1967-68 school year did the Faculty's directory list the services of a professional photographer-technician (before that any audio-visual instructional support came from a few amateur photographers on the Faculty who tried to take clinical snapshots). Mr. J.M. Thistle produced title slides and provided some classroom audio-visual (A/V) support as time permitted; he was hired primarily to perform clinical patient-treatment photography. At that time, the service was operated out of two rooms that contained a small, inefficient and unventilated black-and-white photo

darkroom, a photo finishing area, and a small photo and television studio. Most A/V supplies were purchased by Mr. Ernie Purcell (then head of Dental Stores) and a Faculty Committee, chaired by Dr. Peter Pronych, was responsible for the supervision, budgeting, and purchasing approval for this service.

In the fall of 1974, Dean McLean asked Mr. Bruce Moxley, Director of Photographic and Graphic Services at the University of Michigan School of Dentistry, to undertake a six-month external review of the A/V facilities and services of the Faculty (and of Dalhousie in general) and to make proposals for further services and needs for the Faculty. After submitting his completed report in May 1975, Mr. Moxley received an offer of full-time employment with the Faculty to implement the recommendations of his report as Director of Instructional Resources. A new Standing Committee of the Faculty was created to be advisory to the newly formed Division of Instructional Resources (DIR). The Committee's first chair was Ms. Glenda Butt from the School of Dental Hygiene.

As plans for the new dental building progressed, DIR expanded and moved to various alternate facilities including the BIRD room or rooftop machine room on the 1956 dentistry building and then the basement of the Forrest Building for three years. With the support of Dean Bennett, DIR was instrumental in the planning and installations of the classrooms and labs in the planned new building, as well as alterations to the teaching areas of the Burbidge and Forrest buildings.

In 1981-82, DIR moved into its new facilities, which included a large modern photographic studio, three darkrooms, TV production and cable-distribution facilities, graphics and computer-graphic production areas and office and storage areas. New equipment for classroom instruction and A/V production cost approximately \$500,000 in 1980. A full-time classroom A/V service technician was added to the DIR around this time because the number of classroom and lab teaching facilities increased from 7 to 32 in the new expanded dental building.

From 1982 through 1986, DIR began providing a variety of A/V services to the six schools of the Faculty of Health Professions. Initially, the additional funds (\$25,000 in 1982, \$59,000 in 1986) for these services were provided through the vice-president (finance) and then through the Faculty of Dentistry. Although these services were well utilized, the removal of all A/V funds in 1986 resulted in the closing of these services to them. Two additional staff positions in DIR, partially funded by Health Professions work, were closed in 1985-86, when the funds were lost. (It was rather ironic that the same year the DIR won a Silver Award in the Audiovisual Programmes category in United Way of American's 30th International Communication Contest.) In December 1986 the Faculty reduced DIR services through the lay-off of two additional full-time staff. In January 1987, DIR was to reorganize with a staff of three. Technical support services to classrooms and clerical support for purchasing and the A/V resource



*Mr. B. Moxley, Director of the DIR*

library were the most noticeable loss to faculty.

In the late 1980s, the DIR had to defend and justify its position vis-à-vis the centralization efforts of the report put forward by the President's Advisory Committee on Institutional Support for Teaching and Learning. Mr. Moxley had to defend this support area and

not to give up a structure that is already working well for one that is not yet defined or workable given the inherent nature of centrally managed system... There would be absolutely no advantage to the Faculty of Dentistry to have DIR centrally managed... Faculty could lose essential service, especially in the area of faculty advice and assistance in their instructional planning.<sup>26</sup>

The DIR, in spite of the reduction of its staff, was still able to provide for the Faculty of Dentistry and the School of Dental Hygiene a long list of important services, ranging from clinical photography to graphic art, computer graphics, statistics presentation and posters. Other DIR services included an A/V library with previewing facilities, the classroom support service, responsibility for TV/audio productions, and conference A/V needs. Additional duties included lecture, research and continuing education A/V needs planning, as well as the production of clinical and laboratory manuals. Ms. Marilyn Klein, in her capacity as a chief photographer from 1975, must be given a major credit for all this work.

After reorganization, which included more computerization of production, a classroom services staff position was again funded by the Faculty in 1988 as part of a new classroom-support service organized for the three health faculties. This service included three full-time technicians

supervised by the senior A/V technician in the medical A/V Division. As a team, they supported 105 classrooms in the five health science buildings and the hospitals.

As part of the Faculty's renewed commitment to improving instruction through Faculty Development, DIR's role was expanded to offer instructional assessment services, beginning in September 1989. To achieve this goal, Mr. Moxley worked and studied in the Division of Instructional Development, Office of Educational Resources, the University of Texas Health Sciences Center at San Antonio, which was responsible for the development of a number of modules for the new National Curriculum for Dental Educators, as well as individual faculty instructional assessment.

In 1988, DIR, with the support of Dean Zakariassen, the Computer Centre, A/V Medicine and a number of other faculties, received a start-up grant from the University Development Fund to create a Computer Imaging Centre as a University resource. This service was able to produce high-quality colour and black-and-white hardcopy from computer designed images submitted from anywhere in the University community through the VAX mainframe computer system. This Centre was to start its activities in December 1988, with Mr. Phil Gagnon as manager. The starting of this endeavour was the fulfilment of over three years' work for DIR staff. As a dental faculty, Dalhousie's was probably one of the most fortunate and experienced in Canada in computer use. DIR was prepared to assist Dr. John Eisner to develop a videodisk of dental images from slides and videotape sequences. A newsletter, *DIR Update*, was published to keep the Faculty aware of the services that DIR provides. It appeared that, in 1988, the Faculty and the Administration realized the value of the DIR and committed themselves to supporting it.

## IX. RESEARCH

*Many people think that research is a supernatural gift of the gods.  
However, it is simply an idea from a troubled mind, an inspiration on  
following infinitely painstaking work and justification.*

Sir Frederick Banting

The story of dental research at Dalhousie has to be seen in the context of the history of dental research in Canada. Dentistry owes its origins as a profession to the dedication and ideals of people who were highly individualistic (and frequently secretive) about how they carried out their work. Yet the beginnings of dental research in Canada were not easy, and even when the Canadian Dental Association was organized in 1902 no provision was made for a committee on dental research. Research workers across the country were few, money was hard to get and the financial rewards were scarce. And still in many ways, the history of dental progress has been the result of research. Research has always influenced dental education. Dental educators have followed (and sometimes made) developments in teaching methodology. They have also, as practising dentists, been influenced by developments in dental materials, instruments and equipment, and in other fields of dental research.

The beginnings of dental research at Dalhousie were humble indeed. In 1927 the Faculty received \$300 from the Dominion Dental Council for dental research, and this modest amount allowed Dr. J.S.Bagnall to undertake a research project on local anaesthesia. As an indication of how far such funding went at that time, five years later Dean Thomson could report "the balance of the Dominion Dental Council Fund, over \$200, is available for research by our Faculty and it is hoped will be utilized for dental research by members of our Faculty as well as the development of an interest in research by our students."<sup>1</sup> Thus, one notes, very early in its existence, the Faculty recognized that dental education and dental research must go hand-in-hand. Otherwise, how could the body of knowledge that the Faculty presented to its students be current and of substance?

In 1930, the membership of the Halifax Section of the International Association of Dental Research (IADR) included members on the dental faculty who presented their findings at the meeting of the IADR in Toronto, namely Drs. Bagnall and Young ("A study of certain physical and chemical properties of saliva in relation to dental conditions in children") and Drs. Ritchie and Faulkner ("An apparatus for measuring expansion of plastics"). Members of the Faculty of Dentistry who belonged to the Halifax Section of the IADR, held scientific meetings during the academic year at which papers were presented and discussed. In 1934, for example, members of the Faculty read seven research papers at the two scientific meetings given by the Halifax Section of the IADR: Dr. A.W. Faulkner, "History of International Association of Dental Research and formation of the Halifax Section;" Dr. J.S. Bagnall, "Research - dentistry;" Dr. S.G. Ritchie, "Crystalline structure in relation to failure in metals, especially by fatigue;" Dr. A.B. Haverstock, "Evipan;" Dr. W.W. Woodbury, "Present status of the problem of etiology of malocclusion from the standard of research;" Dr. W.C. Oxner, "The effect of ultra-violet rays on the skin"; and Dr. H.M. Eaton, "Diet and dental health." Thus, when in the 1980s such an idea was introduced under the auspices of the Faculty Development and Research Committees, the Faculty was merely reintroducing an idea pioneered some fifty years earlier, albeit under less favourable conditions.

Dalhousie's dental faculty long advocated that dental research be coordinated on a national basis and be effectively tied in with a national research body. The Research Committee of the Canadian Dental Association must be given credit for bringing this matter to a successful ending. But this actually only started the long march and beginning for dental research to be justly recognized across the nation. It also placed dental education in a dilemma. As Dean W.W. Woodbury so aptly remarked,

...it is already being realized that perhaps the chief obstacle that faces the [Association's research] committee is the dearth of trained workers in the ranks of dentistry. We have noted above in connection with our scholarship programme the need for attracting able students to dentistry; but effort along this line is not likely to be very successful unless such students find themselves in a congenial atmosphere of scientific curiosity when they reach the dental school. This is a challenge to any school and to every teacher in the school.<sup>2</sup>

To achieve these objectives, the Faculty has had to overcome considerable difficulties. Thus, while there has been a general agreement that "an appreciation of, and interest in, research must be fostered" and that "to this end, an opportunity must be provided for students to be made aware of Research activity by direct contact with those conducting projects, and also by affording the opportunity for interested students to do research work",<sup>3</sup> the amount of dental research done at Dalhousie was extremely

limited by physical facilities, finances, staff and available staff time. Nevertheless, at the 1955 annual meeting of the Faculty, Dean McLean reported that one of the priorities and needs of the Faculty was the establishment of a Department of Dental Research. In 1961, there was still no money in the budget of the Faculty set aside specifically designated for research. It had to be secured from agencies outside the University. However, the Faculty agreed that

...it may not be necessary for all good teachers to engage in research, but it is well recognized by dental educators that research activity is vital to a good Faculty. Without active programmes, students will not be made fully aware of the true value of research and its implications, nor will there be the stimulus necessary to create additional and sorely needed workers in the field<sup>4</sup>

Actually, the first National Research Council (NRC) research grant was \$2,350 and it was awarded to Dr. A.E. Hoffman in 1958. It was in connection with this grant that the first full-time laboratory technician (Ms. Jean Callahan) was employed. Also a third-year dental student Mr. Mitchell Levine, was awarded a summer research assistantship. In 1961, Dr. Hoffman received another NRC grant for a summer studentship, and Dr. J. Findlay received an NRC grant for his research work and a summer studentship. The goal of establishing a strong research programme within the Faculty, which traditionally had a limited research base, was given recognition by the establishment of a Research Committee in 1972. However, although the Faculty supported the idea of more dental research work, the laboratory space for research for the whole Faculty was limited to an area of two rooms that were also used for laboratory preparation and preclinical teaching. This situation was not corrected until the completion of the expanded dentistry building in 1982.

One stimulus for faculty members to pursue more research-related activities came during the events that launched the Faculty's 75th anniversary year, which coincided with the official opening of the expanded dental teaching and research areas. One was the XII Biennial Conference on Canadian Dental Research and Education, hosted by the Faculty, at which there were 33 presentations on research and education. The Research Symposium brought together top researchers and members of the dental and allied professions and gave local dental practitioners, faculty and students an opportunity to attend a top international dental meeting at Dalhousie.

A major step to further research, at least in one specific area, had come with the creation in 1979 of a Division of Dental Biomaterials within the Department of Restorative Dentistry. Dr. Derek W. Jones was appointed Division Head and became associated with the impetus for more research activity within the Faculty. The graduate programme in oral surgery and

the post-graduate programme in periodontics, for both of which active research was an essential component, also gave impetus to an improved research milieu that contributed to the solution of specific regional problems as well as to the general advancement of the science and art of dentistry in the Atlantic region.

The search for funding became more competitive in later years. Thus, during the Dalhousie Capital Fund Campaign in 1985, faculty members were not in agreement with what the Faculty of Dentistry needed as its priority for funding. While some in the Administration felt that the need was to upgrade the computer system within the school, others on the Faculty felt equally strongly that the "Case for Dentistry" as part of the Capital Fund Campaign should place more emphasis on scholarly activities and research. Thus, in the economic doom and gloom and budget cuts of 1986, the one bright light was the continued growth in funded research. This came mainly from the Medical Research Council (MRC) in the form of operating funds and major equipment grants since 1969: combined MRC funding increased from \$14,000 in 1969-71 to \$295,901 for the four-year period 1985-89. In 1988-91, the Faculty of Dentistry, the School of Pharmacy, and the Department of Chemistry would jointly obtain a \$712,000 MRC programme grant for research dealing with the synthesis, development and evaluation of biomaterials.

The Annual Research Report, first issued for the 1986-87 academic year, was another reflection of the growing importance of research within the Faculty of Dentistry and the important contribution which research has made and could make to the advancement of the dental profession and Dalhousie University. Almost fifty years before, the Dalhousie Dental Faculty Booklet of 1938 had stated,

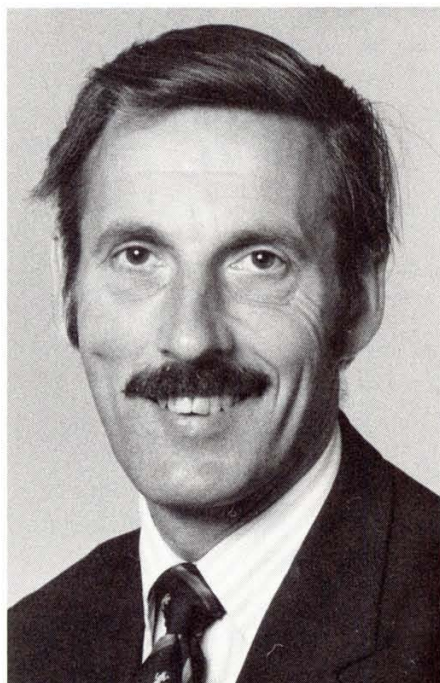
The atmosphere of a professional school should be such that the student will unconsciously develop that scientific curiosity that may lead to research....The unsolved problems of causation cry aloud for students with vision and sound training to devote themselves to research, and there is an increasing demand for teachers with a thorough scientific grounding.<sup>5</sup>

These words were just as pertinent and relevant to dentistry in 1988 as they were in 1938.

The total publications by the Faculty, as listed in the first Annual Research Report of 1986-87, reached the impressive number of forty-six articles in refereed journals. Eighty-nine papers were presented at international, national and provincial meetings and eleven presentations were made at continuing education courses.

In September 1987, *Dental Research News* started to be published by the Research Development office, which Dean Zakariasen set up when he took over as dean of the Faculty in 1986. Dr. Jones was appointed Assistant Dean





*Dr. D.W. Jones*

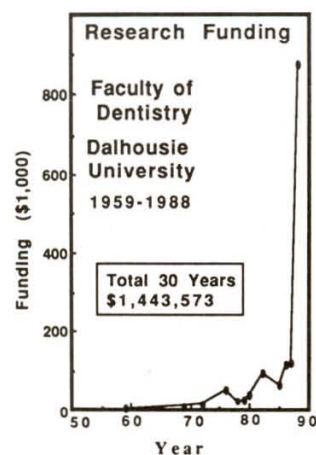
(Research) and stated that the Office should have been seen as a dental research resource for the whole dental profession in Atlantic Canada. He was to provide advice and support to faculty interested in research activities.

Summer students became employed in greater numbers to be involved in some of these research projects. Dean W.W. Woodbury's dreams finally became fulfilled. In the summer of 1987, thirteen students actively participated during the summer months in ten various faculty research projects. An international student exchange programme was initiated with Great Britain as part of the

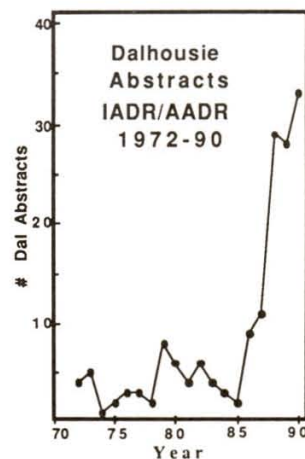
student exchange research elective programme.

A Research Development Seminar series dealing with presentations of ongoing research within the Faculty was initiated with an opening address given by Dalhousie's Assistant Vice-President (Research) F.R. Fournier and Dean Zakariasen, addressing the question "Why Research?" Many faculty members received international recognition for their contribution in research. Thus, for example, the February 29, 1988, issue of *Newsweek* carried an account of some of the research findings of Dr. Michael Cohen. In the same year, Dr. Derek Jones received the Wilmer Sounder Award, the IADR's oldest science award. This was only the second time in the 34-year history of this "Distinguished Scientist Award" that it had been awarded to a Canadian scientist.

Another exciting vista has been developing in dental education in the area of microcomputers and videodiscs. According to Dr. John Eisner, their impact on dental education will be profound. Many previously unattainable educational goals were now on the verge of being addressed with the availability of low-cost, high-memory microcomputers, and the developing videodisc media. Integrated learning between the basic sciences and the clinical disciplines, a goal which has been pursued since at least the time of the Flexner and Gies reports, now became a reality. For example, the possibility now existed to have the entire first-year lecture notes from all courses, as well as all the required diagrams and slides, on a single optical disc, controlled by a computer. This would be programmed in such a way that it could link key concepts and illustrations across the various basic



Research funding 1959-88

IADR/AADR Dalhousie  
Abstracts 1972-90

science or more important, between the basic, behavioral and clinical sciences. With such help it would become feasible to see a reduction of the lecture time in the curriculum, the emphasis being placed on tutorials. The Faculty was to become more involved with problem-based teaching methods and challenge the intellectual curiosity of its students.

One measure of the growth of research activity within the Faculty was the fact that, of the 112 abstracts submitted to the IADR/AADR meetings for 1972 through 1989, 73 (65%) were given in the last four years.

Moreover, in 1989 a record number of educational research papers, nine in number, were presented at the AADS meeting. Thus, in 1989, 36 papers were presented at these prestigious international meetings by members of the Faculty of Dentistry and the School of Dental Hygiene. The 32 research papers presented by Dalhousie faculty at the 1990 IADR meeting constituted 30% of all Canadian papers given at that meeting. The Faculty could look back at its achievements of the past, compare them with the present and look to the future with optimism. Never before in the history of the dental Faculty have so many members been so much involved with genuine scholarly and research activities.

## DALHOUSIE DENTAL SCHOOL RESEARCH PUBLICATIONS

	1984	1985	1986	1987	1988
Number of Faculty Involved	10	18	19	27	36
Research Publications	15	39	50	61	55
Presentations	33	42	54	56	72

(International and National)<sup>6</sup>

While it is difficult to predict what new scientific and technological knowledge will be discovered or developed in the years to come, it is a reasonable assumption that dental education and the delivery of dental health care will be vastly changed because of the ongoing technological and scientific evolution. An educational institution of higher learning, such as a dental school, must actively engage in research in order to add to the "sum of knowledge," not merely pass existing data on to its students, or function purely as a highly sophisticated training centre. The Dalhousie Faculty of Dentistry realized early in its existence that dentistry as a profession continues to change. For that reason, the school focused its efforts to plan and prepare for the 21st century. As Dean Zakariasen put it: "The foundation for dentistry relies on research and with the co-operation of the faculty members at Dalhousie we have taken some very positive steps toward developing dental research and educational projects."<sup>7</sup>

# X. SERVING THE PROFESSION: GRADUATE, POST-GRADUATE AND CONTINUING EDUCATION PROGRAMMES

*Dentist must remain a student...*  
Maury Massler

## — GRADUATE AND POST-GRADUATE PROGRAMMES —

The family physician is passing in the larger centres of population. The family dentist is in a fair way to follow...Specialists are found in every city. Dentists in smaller places are sending patients to others of wider experience. All of this and other things are tending to weaken the place of the family dentist....<sup>1</sup>

Applying the gloomy scenario described in the *Dominion Dental Journal* to the Maritimes was difficult when it was written in 1914. It was equally difficult even when, approximately sixty years later, the Dalhousie Faculty of Dentistry began its first graduate programme—in oral surgery—under the leadership of Dr. Frank Lovely.

At the October 1969 meeting of Faculty Council, Dr. Lovely, as chairman of the Ad hoc Committee was asked to explore the establishment of a graduate training programme within the Faculty of Dentistry and its affiliated teaching hospitals. The proposed starting date was July 1, 1970. The programme was designed to alleviate the chronic shortage of specialists in oral surgery in Atlantic Canada. It allowed the Faculty to provide a wider range of services to the population of the region.

In May 1970, Dean McLean was able to report to the Faculty Council that he had been advised by the Senate of the University that approval had been given to conduct the proposed MSC Degree Programme in Oral Surgery within the Faculty of Graduate Studies. The students in this programme were considered to be residents at the Victoria General Hospital

and were paid as much as medical residents.

There was a major curriculum component of patient care service, in addition to the didactic and research requirements. Successful completion of the programme was a requirement for Provincial Specialty Licensure in Oral and Maxillofacial Surgery and for membership as Fellow of the Royal College of Dentists of Canada.

From the outset, the external examiner selected by the Faculty of Graduate Studies gave the programme excellent reviews. Equally, approval was given by the Canadian Dental Association

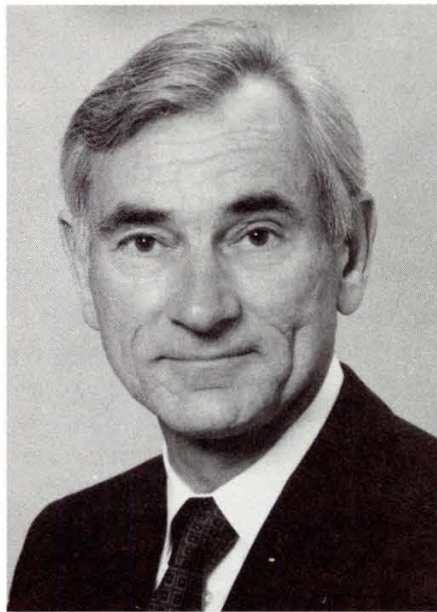
Accreditation Team. The Faculty of Graduate Studies awarded the first Master of Science in Oral Surgery earned at Dalhousie to Dr. David Precious in 1972. The programme was eventually expanded to four years to accommodate the more sophisticated surgical activities of oral and maxillofacial surgery.

The first post-graduate programme to be offered by the Faculty was in periodontics. A submission to establish that programme was first considered at the September 1976 meeting of Faculty Council, when Dr. Ian Vogan's motion "that Faculty Council approve in principle the proposal to establish a two year post-graduate certificate program in Periodontics" was passed unanimously. The Faculty Council appointed a committee of three to prepare the submission to obtain administrative approval and Canadian Dental Association accreditation; Drs. B. Lilienthal and S.M. Brayton were selected to assist Dr. Vogan in this task.

It was hoped that this programme would go some way towards providing a needed increase in the number of periodontists within Atlantic Canada. In surveys of the dental practitioners in the region that had been undertaken by the Faculty, periodontics had been identified as the most urgent in need of help.<sup>2</sup>

This programme was structured to provide the clinical and didactic experience necessary for the practice and teaching of periodontics. A research component was required for the successful completion of the didactic activities, and, in a limited way, post-graduate students in periodontics participated in the teaching programme for the DDS undergraduate students.

Normally two students were admitted each year to this two-year



*Dr. F. Lovely*

programme; the first two were admitted in 1978. Dr. Vogan and Dr. Gordon Pentz were instrumental in guiding this post-graduate programme through its first ten years of existence.

These programmes provided advanced dental education in Atlantic Canada for two of the recognized dental specialties, adding significantly to the educational opportunities available to Dalhousie dental graduates and to dental practitioners of the region who became interested in pursuing further studies. When the post-graduate programme in periodontics was initiated, the Faculty had no immediate plans for any further expansion in the other dental specialities. Not until a few years later were initial plans developed for a graduate programme in prosthodontics. (These plans have not advanced beyond their initial stage, however. It was not so much problems of staffing as financial constraints that precluded any development for at least several years.) However, a Biomaterials Science Graduate Programme was approved in principle by the Faculty, which fully expected its development to proceed in the foreseeable future.

#### — CONTINUING EDUCATION —

The Dalhousie Faculty of Dentistry's involvement in continuing dental education is as old as its involvement in graduate and post-graduate training is comparatively new. Indeed, men who would be on the faculty of the Maritime Dental College were among those presenting papers at the 1892 meeting of the Nova Scotia Dental Association:

- Dr. F.W. Stevens (Halifax), "Preservation of deciduous teeth"
- Dr. M.P. Harrington (Liverpool), "Devitalization of the dental pulp and filling root canals"
- Dr. A.J. McKenna (Kentville), "Necrosis"
- Dr. F.W. Ryan (Windsor), "Symptomatology of some dental lesions"
- Dr. H. Woodbury (Halifax), "Bridge and crown work."<sup>3</sup>

The formation of the Maritime Dental Convention was a logical response to the desire of the profession to reach and to involve its membership.

#### THE MARITIME DENTAL CONVENTION

The Maritime Dental Association which was organized in St. John, N.B. in 1900, will hold its convention of 1902, on July 9 and 10th, in Charlottetown, P.E.I.

The executive committee has been exceptionally fortunate in securing some of the leaders of the profession in Canada and the United States as contributors to the programme.

Dr. A.E. Webster, of Toronto, is editor of the *Dominion Dental Journal*, professor of orthodontia, and demonstrator of operative

dentistry and technique in the Royal College of Dental Surgeons. His essay with illustrations will be one of the features of the meeting.

Dr. Baker is one of the rising young men in the dental profession in Boston. He is teacher of orthodontia in the Harvard Dental school, and well qualified to speak and clinic on the subjects for which he is on the programme. His essay on Facial and Dental Harmony, illustrated by charts, will well repay one for the time taken to attend the meeting.

Dr. Baker will be pleased to consult with those who may desire his advice on difficult cases of orthodontia. He comes to us on the invitation of the S.S. White Dental Co., who have always been instrumental in making our meetings successful.

Dr. Dubeau, of Montreal, Secretary of the Quebec Dental Association, has made a special study of the subject which he will present, and it is hoped that his essay may have the effect of making us more careful in keeping accurate records of examinations and operations performed by us.

Dr. Murray of Moncton, Secretary, of the New Brunswick Dental Society, always has something interesting in the way of a contribution to our programme, and we are sure he will not disappoint us this year.

Dr. Magee of St. John, we all know. He is to give us something of unusual interest in the way of porcelain work.

His clinic will be the first of the kind in the Maritime Provinces, and for those who intend going in for the porcelain art will be well worth witnessing.

Dr. Cates of Campbellton, one of the most practical men in the profession, and the possessor of great mechanical ingenuity, will show a painless method of preparing an edentulous jaw with a ridge of soft and flabby gum extending anteriorly from bicuspids to bicuspids, for a firm setting denture.

One of the most interesting papers read at the meeting of 1900 was that of Dr. Barbour of Fredericton, one of our ambitious talented young men, and he is sure to treat thoroughly, as he does foul pulp canals, any subjects he may present for our consideration.

Dr. Burns who gave us a large and lucrative practice in St. John's, Newfoundland, to settle in Sydney, Cape Breton, will show the latest electrical mallet, and method of operating the same. Dr. Burns enjoys the distinction of being the only member of the Nova Scotia Dental Association who has consented to contribute to the programme.

Dr. H.E. Bulyea's special treatment of approximate cavities, will be a clinic of unusual interest, particularly if his methods will prevent that much dreaded recurrent decay, at the cervical and incisal margins.

Two cases of cleft plate which have been surgically treated, will be presented for clinical purposes, and members are asked to

volunteer to show mode of procedure in making dentures for such cases.

A new departure at this convention will be an address by a member of the medical profession.

The subject which Dr. McIntosh, a leading eye, ear and throat specialist of New Brunswick, will present, is of great importance to the dental profession, and we hope will be fully discussed.

The usual exhibits by the dental companies being arranged on ground floor of the building in which the convention will be held, afford an excellent opportunity for those who wish to see or purchase the latest improvements in dental appliances.

The trip to Charlottetown at this time should be most delightful and the drive and smoking concert to be held on Thursday afternoon and evening will not be the least enjoyable features of the gathering.

Altogether, the Maritime Convention promises to be very successful, and it is desirable that the representation from Nova Scotia be at least as large as that of other provinces.

It must not be forgotten, however, that the meeting of the Nova Scotia Association to be held in Truro in September, is of more importance to members of that body, and while it is desirable for as many as possible to attend both conventions, yet those who cannot do so should reserve time and energy for the Truro meet.<sup>4</sup>

However, with the foundation of the Maritime Dental College, the task of disseminating new knowledge gradually passed to the dental school.

#### THE COMMENCEMENT OF DENTAL REFRESHER COURSES AT DALHOUSIE

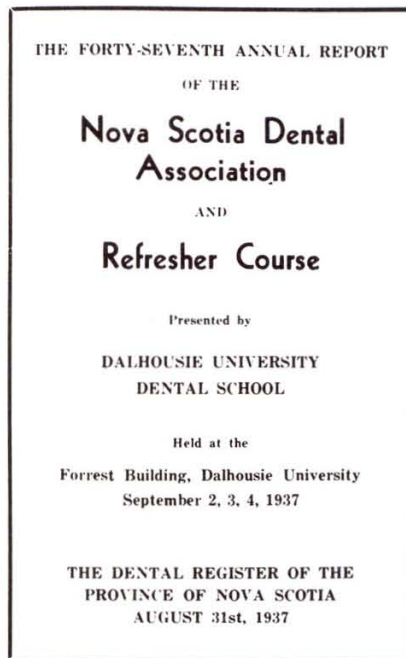
Continuing education programmes offered by the Faculty of Dentistry have contributed a valuable service to dental practitioners, dental hygienists, dental assistants and dental technicians of Atlantic Canada. The first refresher course, as it was then called, was given in 1937.

It was held in conjunction with the annual meeting of the Nova Scotia Dental Association for very good reasons, as elaborated by Dean W.W. Woodbury:

The closing sentence of my report to this Association two years ago was as follows:

"Whenever you wish to make Halifax your place of meeting, the personnel and equipment of the school, with which you have been so intimately associated from the first, will continue to be cheerfully at your disposal." Last year you decided to hold the next meeting in Halifax, and in line with a resolution then passed, your Executive approached the Faculty of the Dental School with a view to arranging a programme "if possible along the lines of a refresher course." The Committee and Faculty have been actively





*Dalhousie's first dental Continuing  
Education Course*

at work on the programme during the past eight months.

To co-operate in meeting the educational needs of the active practitioner is a logical and useful function of a University professional school<sup>5</sup>

Dr. I.K. Lowry, a well-known dentist from Montreal, was the guest clinician. The presentations were opened at 9:30 a.m. on September 2nd, 1937, with Dean Woodbury as chairman. The complete programme of the Dalhousie dental school's first continuing education course was as follows:

THURSDAY, SEPTEMBER 2ND

- 9:00 Registration  
9:30 Chairman: Dr. W.W. Woodbury  
Impression of Case for Immediate Dentures – Dr. I.K. Lowry.  
2:30 Chairman: Dr. S.G. Ritchie  
Registration of Bite in the Practical Case – Dr. Lowry.  
3:30 Chairman: Dr. G.A. Chudleigh  
Symposium on Children's Dentistry:  
"Management and Treatment of Children" – Dr. J.W. Dobson.  
"Diet" – Dr. E.G. Young  
"Orthodontics" – Dr. W.W. Woodbury.  
7:00 Chairman – Dr. W.W. Woodbury.  
Dinner at the Nova Scotian Hotel.

## Addresses by:

President Carleton Stanley, Dalhousie University.

Hon. F.R. Davis, M.D., C.M.. Minister of Health.

Dean H.G. Grant, M.D., C.M., Dean of Dalhousie Medical College.

Dr. Harry S. Thomson.

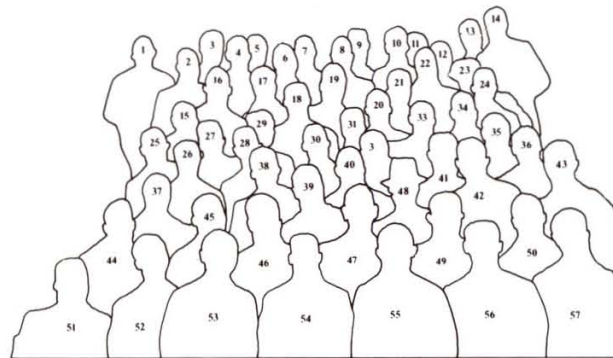
## FRIDAY, SEPTEMBER 3RD

- 9:30 A. Group. Chairman: Dr. W.H.H. Beckwith  
 "Exodontia" – Dr. G.R. Hennigar.  
 B. Group. Chairman: Dr. W.C. Oxner.  
 "Fixed Bridge Work" – Dr. A.W. Faulkner.
- 11:00 Above clinics repeated.
- 1:00 Chairman: Dr. V.C. Calkin.  
 Luncheon, Nova Scotian Hotel.  
 Entertainment by:  
 Miss Rosamond Ritchie, Piano solo.  
 Mr. David Lloyd, Violin solo.  
 Miss Elisabeth Dyke, Piano solo.
- 2:30 Chairman: Dr. G.A. Chudleigh.  
 "Amalgam Metallurgy and Manufacture" – Dr. J.S. Bagnall.  
 "Cavity Preparation for Amalgam" – Dr. W.H.H. Beckwith.
- 3:30 A. Group. Chairman: Dr. G.R. Hennigar.  
 "Insertion of Amalgam" – Dr. G.A. Chudleigh  
 B. Group. Chairman: Dr. A.W. Faulkner.  
 "Colloidal Impression Technic" – Dr. W.G. Dawson.
- 4:15 Above clinics repeated.
- 5:00 Extraction of remaining teeth in the practical case  
 – Dr. G.R. Hennigar.  
 Insertion of the finished denture – Dr. I.K. Lowry.

## SATURDAY, SEPTEMBER 4TH

- 9:00 Illustrated description of technic for "Immediate Denture Insertion"  
 – Dr. I.K. Lowry.
- 10:00 A. Group. Chairman: Dr. W.G. Dawson.  
 "Setting up Teeth" - Dr. S.G. Ritchie.  
 B. Group. Chairman: Dr. J.W. Dobson.  
 Table Clinics:  
 1. "Treatment of Fractured Jaws" - Dr. J.S. Bagnall.  
 2. "Restoration of Incisal Angles" - Dr. W.H.H. Beckwith.  
 3. Demonstration of "Non-expanding Plaster for Casts and Impressions", "Cellulose Acetate" and "Dead Set Investment"  
 – Dr. C.B. Climo.  
 4. "Esthetics" - Dr. W.C. Oxner.
- 11:30 Above clinics repeated.
- 2:30 Chairman: Dr. S.G. Ritchie.  
 "Vincent's Gingivitis" -  
 "Bacteriology, Diagnosis and Morbid Changes"  
 – Dr. A.B. Haverstock.  
 "Case History and Treatment" - Dr. K.F. Woodbury. <sup>6</sup>

The following members registered for the meeting:



The participants of the 1st dental refresher course. 1. I.F. McLellan, 2. A.B. Haverstock, 3. V.D. Crowe, 4. W.R. Scott, 5. H.S. Thompson, 6. J.H. Rice, 7. W.C. Oxner, 8. H.M. Eaton, 9. G.W. O'Brien, 10. G.K. Macintosh, 11. K.F. Woodbury, 12. D.C. Gordon, 13. C.B. Climo, 14. J.D. MacLean, 15. S.W. Spicer, 16. G.N. Stultz, 17. F.W. Johnson, 18. W.W. Woodbury, 19. H.W. Snow, 20. A.A. Dunlop, 21. H.E. Clark, 22. Ross Harrington, 23. W.R. Fraser, 24. J.F. Griffin, 25. V.C. Calkin, 26. A.D. Hopper, 27. G.A. Chudleigh, 28. K.P. Johnson, 29. J.W. Dobson, 30. I.K. Lowry, 31. R.H. Stanford, 32. S.G. Ritchie, 33. L.B. Layton, 34. S.K. Oldfield, 35. W.R. Vaughan, 36. G.R. Hennigar, 37. T. Melanson, 38. N. McG. Layton, 39. W.M. Buchanan, 40. G.M. Dewis, 41. W.H.H. Beckwith, 42. J.A. McLeod, 43. W.C. Dowell, 44. L.M. Baxter, 45. A.W. Faulkner, 46. A.B. Crowe, 47. W.V. Hogan, 48. R.M. Langille, 49. F.R. Duxbury, 50. C.J. Eagan, 51. H.S. Crosby, 52. J.A. Burke, 53. J. Stanley Bagnall, 54. H.F. Giovannetti, 55. E.P. Kavanagh, 56. D.R. MacLean, 57. A. Slonne

The large registration for the Faculty's first refresher course and the friendly, candid, constructive criticism of those who attended it were very encouraging to the dental staff. Consideration of the advisability of holding a second refresher course in 1939 was a natural suggestion to the faculty.

This second refresher course was a more ambitious programme than that undertaken two years before. The number of guest clinicians was increased from one to three; at the same time there was an increase in the active participation on the part of the Faculty. In Dean W.W. Woodbury's words, "A University Dental School in setting up a refresher course should have the whole field of dentistry in mind. It should endeavour to give active leadership by so building its programmes that no vital part of dentistry shall be forgotten over the period of years."<sup>7</sup> With this in mind, an attempt was made to realize this policy by complementing rather than repeating the first refresher course. Many of the dentists who registered for the second continuing education course became associated with the Faculty for many decades to come.

The full programme of the Refresher Course was as follows:

THURSDAY, AUGUST 31ST

- 9:00 Registration  
 9:30 Chairman: Dean W.W. Woodbury.  
 Paper. "Periodontia" – Dr. A. Daitch (Assistant Professor of Operative Dentistry, Tuft's Dental College, Boston).  
 2:30 Chairman: Dr. A.B. Haverstock.  
 Clinic. "Periodontia" – Dr. A. Daitch.  
 3:30 Chairman: Dr. G.A. Chudleigh.  
 Symposium on "New Denture Materials"  
 1. Dr. S.G. Ritchie.  
 2. Dr. J.S. Bagnall.  
 4:15 "Treatment of Oral Lesions by X-rays" – Dr. S.R. Johnston (Radiologist V.G. Hospital)  
 4:45 "Identification" – Dr. F.V. Woodbury.  
 7:00 Chairman: Dr. W.H.H. Beckwith.  
 Dinner – The Nova Scotian Hotel.  
 Address – Dr. A. Stanley Walker (Pres. King's College).  
 Dr. Stephen A. Moore (President, Canadian Dental Association).

FRIDAY, SEPTEMBER 1ST

- 9:30 Chairman: Group A – Dr. A.W. Faulkner.  
 "Periodontia" – Dr. A. Daitch.  
 Group B – Dr. G.R. Hennigar.  
 "Porcelain-Faced Cast Jacket Crown" – Dr. W.C. Oxner.  
 11:00 Above clinics repeated.  
 2:30 Chairman: Dr. H.M. Eaton.  
 "Gold Inlay Technic" – Dr. P.G. Anderson (Associate Professor, Operative Dentistry, Faculty of Dentistry. Toronto University).

## SATURDAY, SEPTEMBER 2ND

- 9:30 Chairman: Group A – Dr. J.W. Dobson.  
“Ethyl Chloride Demonstration” – Dr. W.G. Dawson.  
“Gold Foil Filling, using Pneumatic Mallet” – Dr. W.H.H. Beckwith.  
“Inlay Models by Electro-Deposition” – Dr. H.M. Eaton.  
“Base Plates and Trays from Phonographs Records” and “Partial Impression Technic” – Dr. S.G. Ritchie.
- Chairman: Group B – Dr. H.S. Crosby.  
“Sectional Impressions” – Dr. W.W. Woodbury.  
“The Problem of the Fractured Incisor” and  
“Replacing Broken Clasp on Partial” – Dr. J.W. Dobson.  
“Immediate Partial Restoration” – Dr. A.W. Faulkner.  
“Gold Inlays in Posterior Teeth” – Dr. G.A. Chudleigh.
- 11:00 Chairman: Dr. S.G. Ritchie.  
“Interpretation of X-rays”. Dr. LeRoy M. Ennis (Assistant Professor of Roentgenology, Thomas W. Evans Museum and Dental Institute, Philadelphia).<sup>8</sup>

New ground in continuing education was broken when the Canadian Dental Hygiene Council requested at its 1944 meeting that the University organize a Refresher Course on Dentistry for Children. The result was a three-day intensive programme from February 28 to March 2, 1945, led by members of the Faculty and two outstanding visiting clinicians, Dr. Paul R. Losch of the Harvard School of Dental Medicine and Dr. Stewart A. MacGregor of Toronto. Another innovation was introduced when the fourth-year dental students were asked to attend the course. The response on the part of the dental profession was gratifying indeed. Some 62 dentists registered, including ten dental officers from the Royal Canadian Dental Corps. The Canadian Dental Hygiene Council, the Nova Scotia Dental Association and the Department of Public Health of the Province of Nova Scotia provided the financial support that made it possible to engage the service of two outstanding visiting clinicians. In future years the Faculty's continuing education programme did not have such financial support and the programmes offered had to be more or less self-supporting.

In the 1961 Brief to the Royal Commission on Health Services, the Faculty stressed the fact that advanced dental education in Atlantic Canada was limited to refresher and short post-graduate courses which were undertaken on a regular basis. Courses in various clinical subjects were offered three or four times a year. Depending on the subject, and the facilities for the programme, each class was limited to between six and twelve participants. In most instances, guest clinicians were obtained from various dental faculties in Canada and the United States. However, local clinicians were kept busy as well.



*A continuing education course given by Dr. J. Merritt.  
Participants (left to right), Sitting: Drs. E. Dexter, R. Fraser, S. McNee, A. Ervin  
and B. MacDiarmid Standing: Drs. C. Dexter and L. Layton*

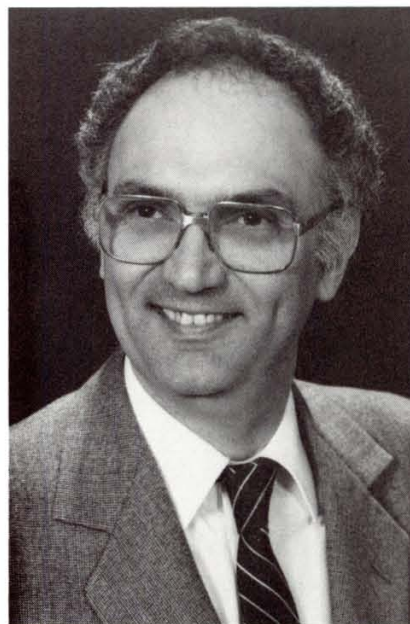
In 1970, for the first time, a continuing education programme was offered to dental hygienists. The course, entitled "The Role of Communications in Dental Health Education," was offered to a group of twenty hygienists by Ms. Maurine Horsman of North Adams, Massachusetts, who was recommended by Ms. Kate MacDonald, Director of the School of Dental Hygiene. The course was received with such enthusiasm that the Faculty was encouraged to continue to extend the refresher course activities into dental hygiene and also into the fields of dental assisting and dental technology.

The first refresher course for dental technicians in 1974 dealt with the interpretation of removable partial denture designs as prescribed by dentists to the commercial dental laboratories. It was given by Dr. Sykora, who as a former dental technician, had insight into the problems faced by commercial dental laboratories. Many more such courses followed. They considerably improved communication between dentists and dental technicians and allowed them to share their common problems, namely, how to provide a better service to the public.

Efforts to improve the programme of instruction through in-training sessions for the teaching staff were conducted during the 1970-71 academic year. Beginning with a two-day teaching conference offered by Dr. Thomas Ginley of the Council of Dental Education of the American Dental



*Dr. Kaireen Chaytor*



*Dr. D.V. Chaytor*

Association, the dental staff held a series of noon-hour study sessions during the term. In the fall, a two-day teaching conference was held at which Lieutenant-Commander S.L. Moore, Canadian Forces Base Halifax, and Professor A.L. Fisch, Project Director of the University of Michigan School of Public Health, presented material on programmed instruction and other new teaching methods.

In response to a request from the Department of Health of Prince Edward Island, a special training programme in extended duties for dental hygienists was initiated.

Activities in continuing education made their most significant advances in the early 1970s. Dean McLean supported the idea of continuing education and was extremely responsive to the professions' requests. Likewise, Dean Bennett encouraged activities in this area through additional staffing, including the appointment of the first co-ordinator for dental continuing education activities in Atlantic Canada.

Dr. Douglas V. Chaytor, who chaired the Faculty Committee on Continuing Education in the 1970s and 1980s, spent many years fighting for a strengthened role for continuing education in the University. He carried this cause to the very highest levels, and the programmes offered by Dalhousie dental school reflected his consistent efforts to give the best to dentistry in Atlantic Canada. He was fortunate to have an enthusiastic nucleus of co-workers on his committee, including Dr. Don Cunningham, who did missionary work in paedodontics, Ms. Kate MacDonald in dental hygiene, Dr. Steve Brayton in endodontics and Dr. Dave Precious in oral surgery.

Just as Dr. Chaytor was described as the head of the dental continuing education programme in Atlantic Canada, Kaireen Vaison (Chaytor) was the heart of these operations. Her job placed her as the co-ordinator. She was aware of the needs and wants for the region's provincial and local dental associations and the resources of the University. Her job, as she put it, was simply to get the faculty out to the practitioners and occasionally get the practitioners into the dental school. Her degree in adult education helped her to lend some structure to the delivery of her message; her background in advertising and public relations made her aware of the many more things that could be done in this field.

The secretary in the office of Continuing Education was Maureen Seabrook. Her background as a medical secretary helped her to become integrated into the dental school. She was responsible for all the registrations and was one of those unique people who always got the work on time and somehow mysteriously managed all the deadlines no matter how unreasonable or impossible they appeared to be. Last but not least, were the office managers, Holly Prest—who, according to Dr. Chaytor, was a ball of fire—and her successor Jean Wood.

In addition to the previously mentioned course for dental hygienists, seven dentistry courses were offered in 1972, covering the fields of endodontics, pedodontics, fixed prosthodontics, operative dentistry, oral surgery, and removable prosthodontics. One hundred sixty dentists and hygienists attended these continuing education refresher courses. Another innovation was the offering of a first off-campus course, held in St. John's, Newfoundland, in the early 1970s. The Faculty realized that offering such courses in centres other than the Faculty of Dentistry would be more convenient and less costly for the participants. This policy continued in years to come. Thus, programmes in continuing education in the 1975-76 academic year were also offered in Fredericton, New Brunswick, and in Corner Brook, Newfoundland. In all, 368 participants—271 dentists, 86 hygienists and 11 dental assistants—took refresher courses during that academic year. Only a few years later, the September 1980 issue of *Dalhousie Dental Journal* could proudly proclaim that all previous attendance records were broken.

#### DENTISTRY'S CONT-ED PROGRAM EXCEEDS ALL PREVIOUS RECORDS

This year the continuing education program in the Faculty of Dentistry provided more continuing education courses, offered more participation opportunities and had the largest number of registrants ever.

Of the 27 courses offered, 12 were held off campus and 15 were at Dalhousie. There were over 1000 registrants in total for all the courses. (Many people attend several courses a year).

The program at Dalhousie serves the four Atlantic provinces, and the registrants are fairly evenly distributed. Of the 1000



registrants, 23 percent come from New Brunswick, 4 percent from P.E.I., 11 percent from Newfoundland, 57 percent from Nova Scotia and 5 percent from elsewhere.

Once again the program included some new activities. Continuing Education in Dentistry received a grant from the Nova Scotia Dental Association and the Atlantic Chapter of the Canadian Society of Dentistry for Children that enabled two clinicians to offer a session on dentistry for the Handicapped Child in four locations in Nova Scotia. This course was open to all health professionals, community workers and interested parents. Dr. Don Cunningham, Dalhousie, and Dr. Arlington Dungy, a paedodontist from Toronto, gave a presentation on treating handicapped children and outlined the services that are available to handicapped children in Nova Scotia under the dental programs of MSI.

The first continuing education course offered in French by Dalhousie University was held in Edmundston, New Brunswick. The clinician was Dr. Leon Lemian, Université de Montréal, whose topic was Endodontics.

The Faculty of Dentistry has coordinated the teaching of CPR(cardio-pulmonary resuscitation) to dentists and auxiliaries. The staff and resources of the Victoria General Hospital and the Nova Scotia Power Corporation have made this possible through the supply of staff and facilities. Many dentists and their staff have taken CPR through Dalhousie and in only a year of offering courses, more than one-third of the dentists in Nova Scotia are now certified for CPR.

Continuing Education in Dentistry co-operated with the Society of Occlusal Studies to offer two three-day courses entitled "Occlusion in Everyday Dentistry." Of the 63 who attended this course, 30 returned for follow-up seminars on the topic. The seminars involved four weekend sessions with a total of eight different clinicians. The dentists brought their own patients to the course and treated them under supervision of the guest clinicians.

Dalhousie University is working more closely with various professional associations to offer continuing education courses, both off campus and at the university, which meet the needs of the practitioner in Atlantic Canada. The response to the courses offered has been very encouraging. "We have come to realize that people can't attend courses that aren't offered", is the comment of continuing education organizers. The aim of the program is to meet a variety of educational and geographical needs<sup>9</sup>

One course particularly merits a brief commentary. Since occlusion is of central importance to clinical dentistry because it involves the understanding, evaluation and treatment of the stomatognathic system, Dalhousie's Continuing Education in Dentistry programme gave dentists an opportunity to learn while treating their own patients. The dentists, their dental assistants and dental technicians all participated together in the

above mentioned occlusion seminars which were held on Saturdays and Sundays in the dental clinic at the Faculty of Dentistry.

Interfaculty co-operation in continuing education also deserves a brief comment. Not only Quebec (Laval) dental faculty were called upon to give a course in French in northern New Brunswick. Another course, "Dentistry in the Pines," was offered in co-operation with the University of Alabama Dental School.

### THE POST COLLEGE ASSEMBLY <sup>10</sup>

The first Post College Assembly was organized by the Continuing Education Committee in 1973. It became an annual event held during graduation week. Its purpose was to introduce the graduating classes in dentistry and dental hygiene to continuing education and to their colleagues in practice. This event invariably featured some visiting clinicians, who were usually supplemented by members of the Dalhousie Faculty of Dentistry. It was a major Continuing Education in Dentistry event and one of the very few that featured a social component. The Sunday evening reception and buffet and the Monday luncheon became traditions at which the graduating classes were honoured.

The original focus of the Post College Assembly was on the graduating class and the alumni. The Continuing Education Committee, under the chairmanship of Dr. Chaytor, took interest in recognizing those practitioners who had supported their programmes in the past. At the Faculty's first Post College Assembly, Drs. G.M. Dewis, H.S. Crosby, H.F. Giovanetti and E.P. Kavanagh were honoured as participants of the first continuing education course offered by the dental school in 1937.

It was always the hope of the organizers of the annual Post College Assembly that the graduating classes would see this as an appropriate time to hold class reunions and thus forge an interaction between the University, the Faculty and the dental practitioners. Moreover, the Post College Assembly programme was later integrated into the annual University calendar, to allow the second-, third- and fourth-year dentistry classes and the first-year dental hygiene class to attend the clinical sessions and become introduced to the concept of continuing education and have the opportunity to hear outstanding clinicians. Those responsible for organizing Post College Assembly believed that it was a worth-while venture for students, new and old graduates and faculty. It was an opportunity for all involved to celebrate with the graduating classes, to wish them well and to bring the whole Faculty of Dentistry a little closer together.



*Doctors G.M. Dewis and H.S. Crosby  
Professori Emeriti of The Faculty of Dentistry  
Participants in the Faculty's First Refresher Course.  
September 1937  
Shown Here While Guest of Honour at the  
Faculty's First Post College Assembly  
May 13-15, 1973*

### CONTINUING EDUCATION IN DENTISTRY PEAKS, DECLINES AND REVIVES

Each year a few new ideas were introduced to the programme. For example, in 1983-84, six of the eighteen courses offered provided opportunities for active participation in clinical procedures. A refresher course for dental hygienists working in public health was organized at the request of the Nova Scotia Department of Health. In the fall of 1984, more than 30% of the dentists in Atlantic Canada participated in continuing education courses organized by the Faculty. Another milestone was reached in February 1985, when the Faculty circulated the first issue of *Continuing Education in Dentistry News*.

Later that year, in recognition of the fact that, without active participation by the profession, there would have been no continuing education programme, the Dalhousie Continuing Education in Dentistry Attendance Award was created to acknowledge the voluntary participation of dentists and dental hygienists in continuing education at Dalhousie. It consisted of a gold or silver lapel pin with the Continuing Education in Dentistry logo. All continuing education courses offered by the Faculty

# CONTINUING EDUCATION IN DENTISTRY

# News

Faculty of Dentistry, Dalhousie University, February, 1985



*A lecture hall with participants of a continuous education course*

qualified toward the accumulation of credit hours. The Silver Award was to be granted to those who accumulated 150 hours of Dalhousie continuing education courses; those who accumulated 400 hours would receive a Gold Award.

Unfortunately, unforeseen changes took place within the continuing education programme's structure. In 1985 Dr. Chaytor retired as coordinator and chairman of the Continuing Education Committee, and Kaireen Chaytor resigned (after ten years' service and taking care of approximately 170 continuing education courses) to become a full-time doctoral student in Dalhousie's Education Department. The Committee also lost long-time member Kate MacDonald, who served for the fourteen years since 1971 and whose years of experience in dental hygiene, additional qualification in adult education and knowledge of people in continuing education across Canada combined to make her contribution to the programme at the dental school extremely valuable.

Although Dalhousie's dental continuing education programmes had come a long way since the first course offering in 1937, the making of these changes had had to fit into the regular workload schedule of most of the continuing education staff. For most of them this became just another load in addition to all of the other activities in which the faculty were asked or were expected to participate. Inspirational leadership, enthusiasm and co-operation had produced surprising results in spite of meagre financial resources and lack of assigned time. Thus, with the loss of these three key people, the activities of dental continuing education at Dalhousie for the next few years had a hard road ahead. Even the Post College Assembly format had to be significantly changed due to less interest than anticipated by the organizers. In later years, the Post College Assembly was not even offered.

Some activities remained popular. For example, the Faculty Development noon-hour presentations were well attended and presented on a regular basis. Moreover, a Research Development Programme was organized to provide research seminars primarily given to encourage



*The Continuing Education in Dentistry Attendance Awards recipients  
Gold attendance awards were presented by Dr. W. Andrew MacKay, President  
Dalhousie University at the 1985 Post College Assembly. Shown left to right are:  
Dr. Doug Chaytor, Chairman, Continuing Education Committee; Dr. Roger  
Porter, Antigonish; Dr. Andrew MacKay, President, Dalhousie University; Dr.  
Doug Anderson, Halifax and Dr. Garry Condon, Kentville.*

Eligible for Gold Awards, but  
absent from PCA were:

Mary Foley  
Les Caslake:

Silver Awards were presented  
to:

Ms. Glenda Butt  
Dr. Blake Creaser  
Dr. Carl Dexter  
Dr. Kadry ElGeneidy  
Dr. Guy Faulkner  
Ms. Burglind Gregg  
Dr. Howard Horsman  
Dr. George Hatch  
Dr. Jack Thompson  
Dr. Talim Ibrahim  
Dr. Ed Spracklin  
Dr. Bill Thompson  
Dr. Ray Wenn  
Dr. George Zwicker  
Dr. Danny Macintosh  
Ms. Linda Zambolin  
Mr. Wayne Banfield

Eligible for Silver Awards:

Dr. Terry Ingham  
Dr. Brian MacDonald  
Ms. Kate MacDonald  
Dr. Mark Richardson  
Dr. Stu Keddy  
Dr. Ron Thomas  
Dr. Peter Christie  
Dr. Fenton Smyth  
Dr. Ian Palmer  
Dr. Brom Hart  
Dr. Eckhart Schroeter  
Dr. Elliott Sutow  
Dr. Oskar Sykora  
Dr. Peter Caverhill  
Dr. Norman Layton  
Dr. Robert Murray  
Dr. John Rooney  
Dr. Steve O'Brien  
Dr. John McMullen  
Dr. Jim MacLean  
Dr. Vern Shaffner

faculty members to pursue an interest in research activities. However, these were intramural activities, mainly focussed on full-time faculty members and intended to stimulate and to enrich the teaching staff of the Faculty.

Thus, after ten years of successful (almost spectacular) groundwork in the continuing education programme, with annual registrations of almost 1000 person-days, there were significant changes that resulted in lower attendance in the next few years. This reduced participation caused a severe financial loss to the Faculty's budget at a time when the University was not willing to underwrite any losses. It brought into question the very survival of these activities within the Faculty of Dentistry.

However, data gathered during a survey of practising dentists and faculty members participating in the continuing education programme had revealed that all participants benefitted.<sup>11</sup> Faculty recognized their greatest benefit was the stimulation from meeting practitioners and learning about their problems: they better understood the regional differences in practice in Atlantic Canada, and over 90% of faculty reportedly intended to use continuing education materials in their undergraduate teaching. It also became apparent that most dental practitioners have little contact with their alma mater other than through continuing education. As only 1% to 9% gave high rankings for contact with the University through alumni office, dental library, cultural and sport events, the Faculty's continuing education programmes seemingly provided the main (if not only) link between the alumni and the University.

Therefore, later administrative changes in the Faculty reaffirmed the importance of continuing education and gave it renewed and much-needed support. The office was renamed "Alumni Affairs and Continuing Education," and Dr. Don Cunningham was appointed Assistant Dean for Alumni Affairs and Continuing Education. Kate MacDonald returned to this vital area and was appointed as a full-time Director of Alumni Affairs and Continuing Education. The revived *Continuing Education in Dentistry Newsletter* announced the continuing education office's reopening and Debra Lavigne's appointment as new administrative secretary. New continuing education courses were planned, ranging from "Computers in your practice," "TMJ disorders and orofacial pain," "Sonics in endodontics" (a limited-attendance participation course), "Money management," and "General dentistry update '87" to a refresher course on "Practical infection control" and a course on "Current trends in prosthodontics."

Another old idea was reintroduced in the 1988-89 academic year: a continuing education course on "Advanced concepts in restorative dentistry" was offered at Mont Ste. Anne, Quebec, as a Dalhousie Dental Ski Seminar week for eager ski-and-learn participants. (The agenda included a presentation on how to restore badly broken-down teeth; fortunately, nowhere on the agenda was there an anticipated need for a presentation on how to restore a badly broken down leg or ankle.) Skiing had been an added feature after regular courses offered in Corner Brook, Newfoundland.

To revive the lost liaison with the Faculty's graduates and to replace the discontinued Post College Assembly, an Annual Dental Alumni Day was initiated and an Alumni Weekend was planned for the fall of 1988. Likewise, to re-establish lost ties, detailed questionnaires were prepared for dentists, dental hygienists, dental technicians and dental assistants, to solicit comments that would be helpful in planning future continuing education courses.

How successful this endeavour will be only time will tell. However, the consensus was clear. The future of continuing education programmes within the Dalhousie dental school will depend on the commitment to continuing education by faculty members and by the administration. That the commitment was there again in 1988 was recognized by Nova Scotia Dental Association President (and member of the Faculty) Steve Brayton:

we're fortunate we practice in Nova Scotia. We have a dental school that has a very active continuing education program. Having been involved in this program for many years I know the time and effort that goes in to the planning of courses, the recruiting of first class speakers,....Courses are chosen and tailored to meet the changing needs of the profession....As scientists we should be intellectually curious enough to want to know what changes are taking place in dentistry. As professionals we have a moral obligation to provide the best, most up-to-date dental care we can for our patients.<sup>12</sup>

## XI. SERVING THE COMMUNITY

*Social sensitivity is necessary if the profession is  
to fulfill its optimum obligations to man.*

C.O. Dummett

Many advances have been made in the delivery of dental services since the opening of the Maritime Dental College. New avenues of interest have been investigated and new dental specialties were responsible for more sophisticated dental treatments. In spite of this, as a 1969 editorial in the *Dalhousie Dental Journal* pointed out, there seemed to be a general lack of awareness of the real importance of community dentistry:

Community Dentistry requires a team effort. The service of parents, teachers, public health nurses, dental hygienists, nutritionists, sociologists, psychologists, physicians, and dentists. The dentist should act as a co-ordinator. He should never at any time allow himself to become so preoccupied with his practice as to ignore the social problems of the community.

Community dentistry not only requires a knowledge of the biological sciences, but also competence in the behavioral sciences. Strong emphasis must be placed on prophylactic dentistry, although this may be costly and time consuming. It should also be realized that to maintain the dental health of a community requires constant motivation to positive action. Such a motivation is often forced to compete with motivations for other actions which may appear to have higher priority to dental health care at a given point in time. An enormous responsibility is thus placed on the shoulders on the dentist, and the necessity for full utilization of all available auxiliary and resource personnel is indicated.<sup>1</sup>

### THE BEGINNING OF DENTAL HEALTH EDUCATION IN ATLANTIC CANADA

Although dental disease was the most prevalent yet largely preventable disease in Atlantic Canada communities (as elsewhere), it was not widely perceived as a major health problem. Despite this faulty perception, the promotion of good dental health among the people of the region was a long-term effort by members of the profession.



The beginnings of preventive dentistry, oral hygiene and public dental education in Atlantic Canada can be traced back to professional notices, inserted in local newspapers by itinerant dentists during the first half of the 19th century. The first known announcement dealing with public education on dental health in Nova Scotia is an advertisement in the *Pictou Bee*:

## CARD

MR. SYLVESTER, Surgeon Dentist, being on a visit to Pictou for a few days only, respectfully tenders his services in the various branches of his profession, to those persons who may require them.

Mr. S. will deliver a Lecture upon the TEETH, this Evening, at 8 o'clock, at the Mason Hall, during which, a variety of Drawings explanatory of the subject will be exhibited.

*Admittance* 1s 3d. June 24, 1835<sup>2</sup>

Knowledge and information are of little value unless they can be communicated coherently and effectively. Thus, while it may be considered by some to be more in the nature of promotion for their respective dental practices than true professional journalism, the *Journal of the Times*, published quarterly by the Halifax dentists MacAllister and Paine, must be credited with attempting to make a significant contribution to raising the level of prevention and dental care to a new height. In its first issue, published in September 1858, the lead story was on the "Preservation of the Teeth." The information to the lay reader was based on clinical empirical observation and the known scientific facts of the day. The article stated that "acids of all kinds are injurious to the enamel of the teeth, as they readily unite with and destroy it... food lodged between the teeth and in their depressions is another fruitful cause of decay."<sup>3</sup> In each of the following issues there was an article dealing with prevention and oral hygiene because

...there is nothing that will be so sure to destroy the teeth as to allow the tartar to remain around their necks, for it sooner or later works its way under the gums, loosening the teeth, and causing their premature loss. The tartar can always be removed, restoring them to their original color and whiteness....<sup>4</sup>

However, these were individual efforts made by individual dentists in an effort to promote better understanding of dentistry in their communities.

The first effort in organized dental health education in Nova Scotia can be traced to 1906. Credit for this initiative must be given to a committee of the Nova Scotia Dental Association, known as the Oral Hygiene Committee. This Committee enlisted the co-operation of the Department of Education of Nova Scotia and arranged a series of talks to school children in several urban centers across the province. It also organized lectures on dental health for the students at the Provincial Normal College. Later, this Committee, with the assistance of local volunteer groups, started dental

clinics for school children in Halifax, Sydney and New Glasgow.

What was the dental health situation of these children? In truth, the findings were not very encouraging. According to the 1909 report, when the Dental Examiners had completed their oral findings of grades I through VIII of the Halifax city schools, of 4,259 pupils, more than 1,000 had teeth that were coated with calculus, 970 were judged to have irregularities of the teeth more or less detrimental to their health, 244 had fractured teeth, and 426 had lost all their permanent first molars. The examiners found 103 abscesses and approximately 13,000 unsound teeth (only 654 pupils in all grades were without cavities).<sup>5</sup> Obviously, a monumental task and challenge was ahead for the newly founded Maritime Dental College to change the public apathy, to educate not only new generations of dentists but to make aware to the generations of parents what preventive dentistry is all about and what dentistry can do to promote better health within the community.

The Faculty tried to enlarge its scope of extramural activities during the First World War. An agreement was reached with the Naval Department for the oral care of the sailors stationed in the Halifax harbour. Also, an active part was played during the aftermath of the Halifax explosion of December 1917.

AGREEMENT BETWEEN NAVAL DEPARTMENT  
AND DALHOUSIE DENTAL COLLEGE  
1915-16

It is hereby agreed that the Dalhousie Dental College will place as far as possible its Operative Infirmary at the service of the Naval Department of Canada for the care of the teeth of the sailors on the Halifax Station and H.N.C.S. [sic.] Niobe as under noted.

TIME...Every afternoon from 2.30 to 4.30 o'clock except Saturday.  
The Infirmary will be open from October 4th, 1915

FEES...Fillings, Amalgam or Cement	\$1.00
Treating and filling pulp canal including extirpation of Dental pulp	\$1.00
Treating Pyorrhoea Alveolaris and removing calcarious deposits	\$1.00
Extracting teeth, Cocaine and other Analgesic may be used if deemed necessary	\$0.25
Partial or full upper or lower dentures on vulcanite including necessary clasping etc.	\$8.00
Gold fillings, inlays, bridges etc. or dentures on other materials than vulcanite may be supplied when properly	

authorized at fees which may be agreed upon.

It is understood that if in the interests of the students gold fillings or porcelain inlays or other fillings than those named above are desirable, they may be inserted but no extra charge shall be made, unless ordered by the Naval Authorities.

STUDENTS..None but students of the third and fourth years shall operate upon these patients, and these only under the direct supervision of regularly qualified demonstrators.

INFIRMARY...The work shall be done according to the regulations in force in the Infirmary of the Dalhousie Dental College.

Respectfully submitted,  
Dean.

Halifax, N.S.                      Faculty of Dentistry, Dalhousie University  
August 6, 1915.<sup>6</sup>

In 1919, a rural dental treatment programme was started, with the dental Faculty joining its efforts to those of the dental profession, the Nova Scotia Red Cross Society, and the Nova Scotia Provincial Department of Health to operate a Red Cross Caravan. This Red Cross Caravan toured rural areas of Nova Scotia during the summer months for four years.

Also, an improvement of services to the community took place at the Victoria General Hospital, staffed by Dalhousie Faculty. The establishment of an evening Adult Dental Clinic, in 1928, was another service to the community jointly undertaken by the Faculty and the Halifax Dental Society. Dalhousie dental students visited both the Pre-School Age and Adult Clinics in the Health Centre which proved beneficial both to the students and the public.

Close co-operation between the dental school and the Nova Scotia Departments of Health and Education was of long standing. Dental health literature was purchased by the former, and dental health films by the latter, upon the Faculty's recommendation. At the request of the Nova Scotia Minister of Health a lecture, illustrated by these films, was delivered by the Faculty to Public Health Nurses. Through the co-operation with the National Council of Maternity and Child Welfare, literature referring to dental health of pre-school children was also distributed. Since letters from Dalhousie dental graduates indicated a desire to participate actively in dental public health education, literature, films and material for radio broadcasting was sent to them from the Faculty. Booklists on the Care of the Teeth, with models of natural dentition were also distributed to the graduating class of 1934 in order to be able to educate the public.



Courtesy of The Chronicle-Herald and The Mail Star

*Volunteer-manned Red Cross Health Caravan, in rural Nova Scotia, early 1920s.  
Dr. S.G. Ritchie (wearing light coloured pants) represented the Dental Faculty*

In the 1938-39 academic year, the Faculty was consulted by the Halifax City Health Officer regarding dental work for the City Home. After consideration of this request, from the primary angle of its education value for the student, the work was undertaken. Weekly visits under Faculty supervision were made to the City Home by groups of students. "It proved," Dean W.W. Woodbury reported, "to be not only a good service to the community but a valuable addition to our clinical teaching programme."<sup>77</sup> In 1938, a province-wide Dental Health Educational Campaign was carried out through the combined efforts of the Nova Scotia Dental Association, the Faculty, the Canadian Oral Hygiene Council, the Department of Public Health and the Department of Education. Addresses on dental health were given to local service clubs and to school children in 22 urban centres. Free dental examinations using local volunteers were carried out for some 23,000 school children as part of this campaign.

#### REACHING OUTSIDE THE METRO AREA: THE MOBILE DENTAL CLINIC

The problems of dentistry and how best to serve the interests of the Atlantic area were not discussed only within the "Ivory Tower" of the dental school. Serving the community outside the Halifax Metro area by the Nova Scotia dentists had a long and successful tradition. Dean W.W. Woodbury's Report of the Faculty of Dentistry Dalhousie University addressed the problem of delivery of dental services to the community and how this will affect the dental teaching as well:

one can foresee that the war will probably accelerate the public demand for an extension of dental services throughout the

community. The attempt to meet this demand is likely to throw into high relief the relative inadequacy of present dental knowledge when faced with the problem of dental health on a national scale. This will have its effect on the whole dental educational enterprise, more especially teaching and research...<sup>8</sup>

That the Faculty had a deep interest in addressing the dental problems facing all of the citizens of the Atlantic community was reflected in many articles published in the region's newspapers during the dental school's 80 years of existence. In Dalhousie University's 1961 Brief to the Royal Commission on Health Services, the Faculty of Dentistry formally addressed the problem of the inadequate dental care received by the population in Canada in general and in the Atlantic provinces in particular.<sup>9</sup>

During the summer of 1969, the Faculty was able to initiate a pilot project in Tatamagouche, Nova Scotia, designed to test the feasibility of providing a meaningful field-service experience for dentistry students. It was in many ways a reactivation of the mobile dental trailer/caravan idea that had proved to be such a successful endeavour before the Second World War. Two unsuccessful attempts by the Faculty to secure financial support from the governments had frustrated the desire to undertake such a step, but a special grant from the Canadian Fund for Dental Education, enthusiastic volunteer support from the community and the invaluable help of the local public health nurse made it possible for the dental school to lead the co-operative venture. The Tatamagouche summer project proved to be an extremely successful undertaking that, in addition to providing valuable experience for the selected students and for the Faculty, resulted in the provision of health education and dental services for many young children in that community. The Faculty believed that the programme was sufficiently successful to warrant a continuation and expansion in the years ahead. However, it was realized right from the beginning that without government commitment it seemed unlikely that adequate private resources could be found to continue the endeavour. Fortunately, in 1971, the Faculty received a promise of financial support from the Department of National Health and Welfare.

Faculty and students worked in Tatamagouche during the summers of 1969 through 1972. Another such programme was initiated in the summer of 1972 in New Germany. During the next winter, the dental trailer was located in Terence Bay.

These extramural programmes were designed as pilot studies to augment the educational experience of undergraduate students in dentistry and dental hygiene. In addition to meeting their primary objective, the students were able to provide dental care for younger children in the relatively unserved communities in which they were located. The Faculty, inspired with the mutually derived benefits, encouraged the government to



*The mobile clinic*

continue and expand these facilities. The trailer was also used on a voluntary and rotation basis by members of the Nova Scotia Dental Association and their staffs who travelled to Sherbrooke, sharing a six-week period in the fall of 1972. This was the first time that extensive dental services had been available to a number of people in that community. The dental trailer was used in later years in the Lakeview-Burnside area but 1976 summer operations had to be abandoned because of lack of financial support from outside agencies.

The Faculty also pursued the opportunity to serve the community in some of the most remote areas of Atlantic Canada and was interested to develop external site educational programmes for its students. To this end, it arranged through Dr. J. Messer of the Grenfell Mission in St. Anthony, Newfoundland, for dental and dental hygiene students to serve in the dental clinic in St. Anthony on a rotation basis beginning in September 1989. It is expected that this extramural programme will be beneficial to both the Faculty and the Grenfell Mission.

#### DISPLAYING THE DENTAL HERITAGE OF ATLANTIC CANADA

On many occasions the Faculty wanted to reach a wider community than the children in schools or the patients who visited the clinic. Thus, in the early 1970s the Faculty co-operated with the Nova Scotia Museum in putting together an impressive display entitled "Dentistry circa 1870." The theme of the exhibition was dentistry as it had been practised in Halifax a century before. A dental parlor and a dental laboratory of the period were recreated in the foyer of the Nova Scotia Museum in Halifax. Antique dental furniture, such as a dental chair from the 1860s, old dental equipment, instruments, medicaments and old dental records were all arranged for the public to see. The items on display were from the dental school's museum collection, such as a vulcanizer to process prostheses, turnkeys used in oral surgery, operative instruments, vulcanite partial and

complete dentures. Most of these items were donated or owned by pioneers in dental education and organized dentistry in Nova Scotia. The Nova Scotia Museum contributed other appropriate furnishings of the period, supplemented by contemporary archival material. Four thousand persons signed the book at the Museum during this display of dental heritage of Atlantic Canada.

"The longer you look back - the further you can look forward; the past supplies the key to the present and to the future," said Winston Churchill. With this philosophy in mind, the Faculty tried throughout its history to acknowledge modern dentistry's debt to the pioneers of the profession. As early as 1926, the Faculty used a \$100 donation from Dr. S.C. Agnew of Antigonish to purchase four museum display table cases, which are still in use today. They are used in the main foyer to exhibit dental heritage of Dalhousie and of the Atlantic area.

In most North American dental schools too little space, concern and budget were allocated to preserving and displaying artifacts of the profession's history; however, this was not to be at Dalhousie. When the new dental building was opened, the Faculty's efforts to preserve and display the dental heritage of the Atlantic region were duly acknowledged and given national recognition by the Association of Canadian Faculties of Dentistry.<sup>10</sup>

In 1985, the Faculty participated in the History of Dalhousie Seminar Series, dealing with a variety of topics concerning the history of the University and its interaction with the community. Indeed, "Dalhousie and Early Dentistry in Atlantic Canada," presented by Dr. Sykora, was the first of these seminars, which were open to the general public as well as to the academic community.

#### DAILY ACTIVITIES OF THE FACULTY AND THEIR IMPACT ON THE COMMUNITY

Frequently, the impact that the Faculty of Dentistry had on the community, whether as an institution or measured by the many varied activities of its members, can be traced through newspaper articles. Usually they have been positive, sometimes they have been controversial, but always they have been of interest.

Research work done by members of the Faculty frequently made for an interesting newspaper headline. For example, "Teeth tell truth about radiation" headed a story based upon the work of Dr. Barry Pass, a practicing dentist and part-time Dalhousie faculty member who had a PhD in physics. Working with another Dalhousie researcher, radiologist Dr. John Aldrich, Dr. Pass was researching one of the most accurate and consistent indications of radiation, namely the human tooth enamel. They found that, because enamel that is unaffected by caries does not change (unlike other parts of the human structure), enamel subjected to a highly accurate process involving microwave bombardment reveals the accumulated history of



*Dr. D. Cunningham and Ms. K. Purcell in the Special Care Unit, 1988*

radiation effects to which one has been exposed. (No wonder the public took notice!) The ultimate goal of this study was in the development of an in-vivo system, where quick and accurate testing for radiation levels could be carried out on a patient's teeth.<sup>11</sup> Equally interesting for the community was the work done by Dr. David Richardson from the Division of Paediatric Dentistry. He developed a technique of bonding to teeth small identification discs that would be able to carry vital personal information and make identification of the bearer easy.<sup>12</sup>

Low-income persons, the handicapped, the elderly, young children, and victims of communicable diseases, industrial accidents, and congenital defects were not forgotten by the Faculty. Thus, for example, in 1970, the Faculty acknowledged that with the growth in the number of older citizens in the community, the attention of the teaching programme had to be shifted toward geriatric dentistry. The Faculty was encouraged to present courses on the treatment of the aged and to develop suitable programmes related to this field. The Faculty's response to the existence in the community of persons with special dental needs had an immediate and practical side, as well as a pedagogical side. Thus, for example, dental care was provided to the elderly residents of Halifax's Northwood Manor, thanks to the initiative of Dr. Robert MacDonald, a full-time faculty member from the Division of Operative Dentistry. Dr. Julia Houlton, who served as a part-time faculty in the Division of Paediatric Dentistry, provided dental care at the North End Clinic in Halifax for low-income people. Another service to the community



that the Faculty provided was the clinic for people with temporomandibular joint (TMJ) problems. This TMJ clinic, run by Dr. A.K. ElGeneidy of the Division of Oral Diagnosis, was begun in 1978.

The community at large benefitted from the programme initiated by the Faculty under the title "Dentistry for the Handicapped." Also, the mobile dental clinic continued to operate at Harbourview and Notting Park schools in Dartmouth. These mobile dental clinics have been of considerable benefit to the communities served. They addressed the continuing problem of children in certain areas who did not seek dental treatment because they had difficulty getting to the private offices of general dentists. Another first for Atlantic Canada was the development of a maxillofacial unit operating within the dental school. Dr. Robert E. Hoar is to be credited for the initiation of this service.

Most recently, the Faculty opened in October 1987 Eastern Canada's first dental clinic specifically designed for HIV-positive patients. This special care unit was established so that the Faculty could assist the profession and the community when exceptional circumstances made providing the necessary dental care in a private office unfeasible. Infectious patients were referred to the Faculty by direct contact between the referring dentist and clinic director Dr. Don Cunningham (to ensure confidentiality), and were treated by faculty volunteers.

#### REACHING BEYOND THE CONFINES OF THE DENTAL BUILDING

In the early 1970s, the Faculty became gradually more involved in the teaching of dental technician students at the Nova Scotia Institute of Technology (NSIT). Over the years various faculty members, particularly those from the area of prosthodontics, became involved in the teaching programme at the NSIT. Dr. Sykora's initial efforts were followed by those of Dr. R.E. Hoar, Dr. R. Brygider, and many others. The activities strengthened the teaching at the NSIT. It also allowed the Faculty to influence the dental technician students with the teaching philosophy of prosthodontics as taught at Dalhousie University and to facilitate communication between the two professions. Furthermore, the Faculty was active in helping with the teaching programme for dental assistants at the NSIT. The dental assistant students were actually helping the dental students on the clinic floor as part of their training requirements.

Among the Faculty's efforts at dental health education via electronic mass media was a series of television programmes initiated by Dr. John Sterrett that aired on the community channel and featured dental and dental hygiene student Table Clinics.

For the University's three-day Open House in October 1988, the Faculty of Dentistry and the School of Dental Hygiene organized a variety of activities, such as tours of the clinics, museum displays, presentations of research activities and audiovisual presentations. Volunteers were selected

to be the tour guides. Students, staff, and faculty presented dentally related projects and contribution of hobbies, such as photography, crafts, and arts. The visitors were assisted wherever possible in learning about the Faculty and its activities. The visitors were also learning about the evolution of dentistry as a profession throughout the ages from a large poster display prominently placed in the entrance foyer on the main floor.

The massive media reaction in 1990-91 to the mercury scare in dental restorations provided the faculty with another role in the community. To put consumers' concerns at ease, Dr. Derek Jones, a researcher and recognized expert on dental materials, responded to 25 interview requests (6 television, 10 radio and 9 newspaper), 22 of which were within a two day period.

"The Dalhousie Report", a supplement that appeared in the fall of 1988 in Halifax daily newspapers at the time of the Open House, described the kinds of diverse community and work related activities in which members of the teaching and support staffs take part outside their normal classroom, research and office duties.<sup>13</sup> Such nonprofessional community service has been as characteristic of the members and staff of the Faculty throughout its history as the professional community service that it complements.

#### PROMOTING DENTAL HEALTH AROUND THE PROVINCE

The School of Dental Hygiene has a long established tradition of community involvement to promote dental health both in metro and other parts of Nova Scotia.

Settings during the past year for a wide range of dental hygiene projects included senior citizens' homes, elementary and junior high schools, workshops and residences for the mentally handicapped, halfway houses, pre-school and day care programs, French immersion programs, Beaver, Cub and Brownie groups, health fairs, university residence, weight control groups and prenatal classes. The communities involved were Halifax, Dartmouth, Eastern Passage, Annapolis Royal, Sydney, Chester, Antigonish, Fairview, New Ross, Cole Harbour, Fall River, Bedford, Mount Uniacke and Bridgewater.

Two major projects were implemented. One was a program to improve the oral health of mentally retarded adults in Halifax area group homes. Faculty organized workshops for group home staff and representatives of the Regional Residential Services Society reciprocated by providing workshops to dental hygiene students and faculty on mental retardation and group home concepts. Students and faculty paid weekly visits to group homes to help care givers and residents in establishing desirable patterns of group home care. The results to date have been successful and the program is continuing this year.

The second project involved faculty from the School and the Faculty of Dentistry. This team conducted an assessment of dental



*Partial views of the ground floor display of Atlantic Canada's dental heritage*

health needs of those being cared for in the Mother House infirmary of Mount Saint Vincent University. A result was the development of an oral hygiene care program. Two faculty members—one dentist, one hygienist—and eight senior dental hygiene students made weekly visits to the infirmary and provided a variety of services. This, too, will continue this year.<sup>13</sup>

#### SPORTS, FIRST AID, SCOUTING AND MULTICULTURALISM

The most obvious community-related activity of the Dental Clinic within the Faculty of Dentistry is in the treatment of about 4,000 patients mostly from metro but also from other parts of Nova Scotia. That number generates more than 35,000 patient visits a year.

The dental school also operates a satellite clinic in a trailer in the north end of Dartmouth. This clinic offers services to school children in the area. Last year a special care clinic was opened in the dental school for the treatment of patients with infectious diseases and in conjunction with a clinic in the Victoria General Hospital faculty offered dental treatment to the adult population of Nova Scotia who suffer from congenital and other blood disorders.

Faculty and staff are busy in the community.

Dr. Donald P. Cunningham, director of clinics, and Dr. Gary Jackson, director of patient care, acted as resource persons for the Nova Scotia Task Force on AIDS, and Dr. Cunningham helped one school board in the development of an AIDS policy.

Dr. Lew Archibald continued as a member of the All Saints Cathedral Choir; production lab supervisor, Wayne Banfield was

co-ordinator of a Mosquito league for boys and girls aged 9 to 11, assistant coach to one team, coach of an all-star team and coach of a T-ball team. He also ran an indoor baseball school and a T-ball program; Dr. Harold Brogan is a member of the provincial training and editorial committees of St. John Ambulance Association, a member of Dartmouth Natal Day committee and awards chairman of Dartmouth Volksmarch Club; technical assistant Victor Carvalho was re-elected for a second term as president of the Multicultural Council of Halifax-Dartmouth, senior vice-president of the Multicultural Association of Nova Scotia, coach of the Halifax Portuguese soccer team, was co-chairman for the past three years of "Celebration" for the Festival on the Waterfront, and is a member of the advisory committee on multicultural affairs to the city of Halifax; Dr. Douglas V. Chaytor has served as president of Armview District Council of the Boy Scouts of Canada as well as on other scout committees, was a member of the medical team for the Nova Scotia Jamboree, is an usher of St. Andrew's Church, and is a member of the Nova Scotia Salmon Association; Dr. Chris Hawkins is the 1988-89 president of the Beaufort School Parent-Teacher Association; Dr. Robert Hoar is vice-chairman of the board of trustees of Twin Oaks Memorial Hospital in Musquodoboit Harbor; Dr. Vern Shaffner is paddling director of Maskwa Aquatic Club and group committee chairman of the 1st Birch Cove Boy Scout troop; Dr. John Sterrett is a Telstar Toastmaster, a member of the Society of American Wines and a member of the Dalhousie United Church committee; technician Robert Zinck is an active member of the Bedford Volunteer Fire Department.<sup>14</sup>

#### THE FUTURE ROLE OF THE FACULTY WITHIN THE COMMUNITY

What should be the role of Dalhousie University in general and thus of the Faculty of Dentistry in particular vis-à-vis the community was well expressed in the Presidential Statement on the Mission of Dalhousie University.

Dalhousie will strengthen its community connections by placing greater emphasis on communications, increasing the community's understanding of what we do and our understanding of the community's needs and concerns. We will recognize and consider community aspirations and concerns in all appropriate aspects of our activities. We will be dynamic and innovative in our approach to community access and service and at all times strive to exhibit integrity, competence, and responsiveness in our interaction with the community....<sup>15</sup>

If the mark of a great university is a concern about the welfare and needs of all individuals in the community, the same goals would be applicable for a faculty of dentistry. The Faculty of Dentistry of Dalhousie University

must always be concerned about the welfare and needs of all the inhabitants of the Atlantic community. In its eighty years of existence, the Faculty fulfilled this mandate.

# WHAT IS AN EPILOGUE BECOMES A PROLOGUE

*The council for the future results from the past.*  
Seneca

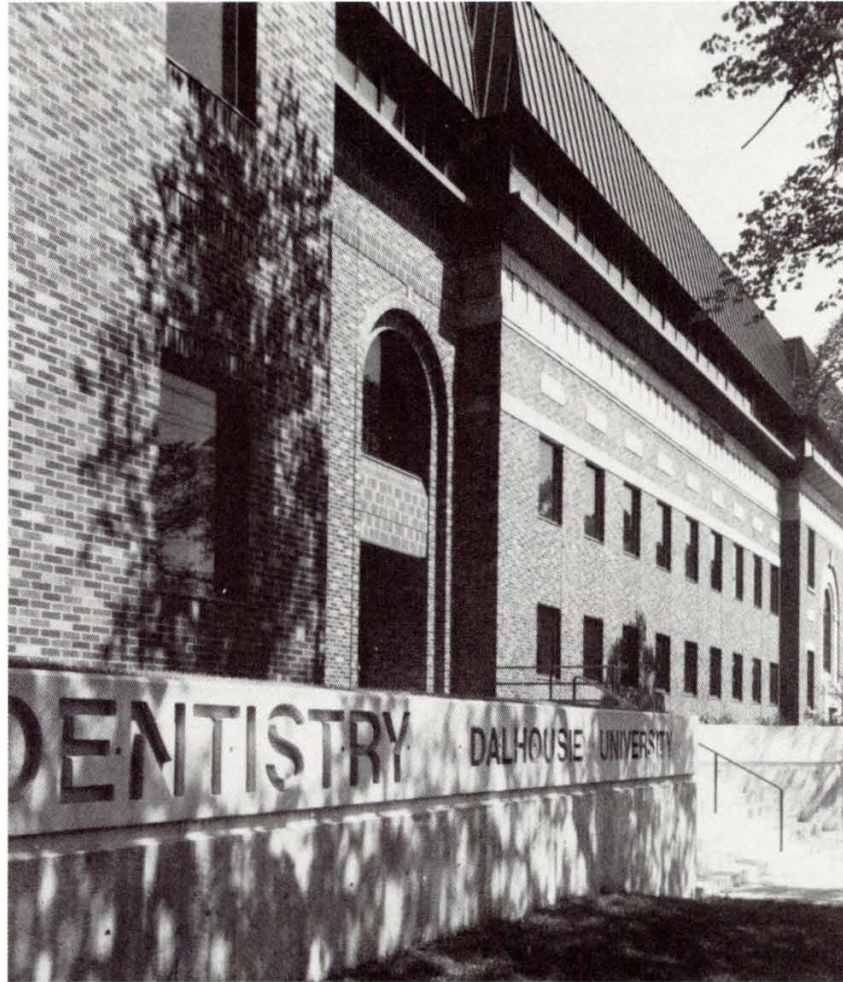
The story of dental education in Atlantic Canada has been the story of the Dalhousie dental school. The story told was concerned with the past and with the present, but what about of the future? What will be the relationship of dental services in the years to come? What will be the relationship between general practitioner and specialist? What will be the relationship of dentists to other health professionals? What will be the relationship of the Nova Scotia Dental Association and the other provincial dental associations in Atlantic Canada towards the Dalhousie Faculty of Dentistry?

The observations of the 1905 editorialist

the dentist of tomorrow cannot be the same sort of man as the dentist of the past, ... he who would in the future confine his professional work to conditions involving the mouth and teeth must be a broad diagnostician. He must know the relation of the work to the general system and he must interpret what he sees in the work in the height of his general medical education.<sup>1</sup>

are as valid today as when they were written. Nevertheless, dentistry will also change, because change is the natural law of life, though the direction and speed of change may well vary from one period in history to another. However, one of the truisms that may be made of our times is that the change is increasing in speed.

As the standard of living improves, at least one hopes, there is an even greater increase in the demand for better dental care. Education is the key: the better educated the population is, the more it will demand dental services. We are living in a period characterized by rising expectations. The population in Atlantic Canada is becoming urbanized, and increasing scientific and health knowledge is changing the age distribution of the



*Dalhousie Faculty of Dentistry*

population, which in turn is changing the nature of dental-care needs. "Undoubtedly, the next century dentist will be shaped not only to meet academic standards but also several societal demands."<sup>2</sup>

Thus, the educational philosophy of the Dalhousie Faculty of Dentistry must be to educate young people to serve society and to be ready to adapt to society's greater expectation and demand for expanded dental service in the future. Historically, dentistry has concentrated on the procedures related to repairing the destructive processes of dental decay and periodontal disease, to restoring lost structures by fixed or removable restorations. Dental disease is still the most prevalent but preventable disease in Atlantic Canada, yet dental health is still not perceived as a major health issue by much of the population. With the emphasis on preventive therapy, we have nevertheless seen a dramatic reduction in the incidence of dental caries worldwide, particularly in the developed countries. Simultaneously, with better oral hygiene, the prevalence of periodontal disease will be reduced dramatically as well. With the ever increasing

financial constraints, innovative and imaginative ideas must be developed to guide the dental school into the future years.

The events which have occurred since the formation of the Maritime Dental College, in 1908, are now a part of history. What lies ahead is open to speculation. While no one can foretell the future in detail, some trends are clearly discernible. Dental practice is changing and will change, just as surely will change the dental education. Social, economic, technological and political forces have influenced dental education at Dalhousie. It is evident that these same forces will continue, albeit in an accelerated way, to influence and change the concepts, philosophy, objectives and operations of dental education and dental practice in Atlantic Canada in the future. In the past, Dalhousie Faculty of Dentistry pioneered in Canada many new concepts in dental education. Such was the introduction of the criterion reference system for clinical evaluation of students or the idea of a comprehensive dental care within the concept of general dentistry. This pioneering spirit in dental education will certainly be evident in future years as well.

In the planning of the Dalhousie education programme for the 21st century, it will be essential to plan the curriculum in such a way that the programme can be kept as flexible as possible, so that it can be adjusted readily. The key elements in any future plan for dental education are the programme, the student, the faculty, the staff, and the patient. As heretical as it may sound to some, the physical plant of the beautiful new building—the classrooms, clinics, laboratories and research facilities—are only the tools that facilitate the process in education; they are not ends in themselves. Although organized dentistry, especially the Nova Scotia Dental Association, was responsible for initiating the dental education programme in Atlantic Canada with the foundation of the Maritime Dental College over eighty years ago, it can be said that once the Dalhousie Faculty of Dentistry was formed, the relationship between dental education and the dental profession became more symbiotic—after all, all dentists are the result of dental education.

Over the many decades, dedicated faculty at various times and at various lengths, contributed to the teaching and research of Dalhousie's dental school. To the best of their abilities they all contributed to the different teaching and research programmes in their various areas of expertise, enriched the lives of their students and hopefully with the interaction in the dental school milieu their lives became enriched as well.

The mission of the Dalhousie Faculty of Dentistry for the 21st century will thus be to provide the principal educational base for the delivery of high-quality preventive and oral health care to the people of Atlantic Canada.<sup>3</sup> It will carry out this mission by means of undergraduate, post-graduate, graduate and continuing education programmes in dentistry, dental hygiene, other dental auxiliary fields, programmes that are informed by a knowledge base grounded in Faculty-based research and in public and



professional service and that are quick to adapt to changing needs in dental treatment. In summary, it will be based on the philosophy "to give the best possible to the capable student."<sup>4</sup>

We have been following the education changes in the evolution of the dental profession in Atlantic Canada within the last eighty years. These changes were made possible because of the ideals of the men and women enlisted at the Dalhousie Faculty of Dentistry. Each and every one, whether on teaching staff in a part-time or a full-time capacity, in the administration or in one of the many support positions, has always been willing and anxious to do more than many times could be humanly expected to help the Dalhousie dental school.<sup>5</sup> With such a spirit in evidence over the past eighty years, one can look forward to the future years with confidence. The Dalhousie Faculty of Dentistry cannot be—and never was intended to be—a large institution, but it did develop and has an obligation to maintain an attitude and method that enable its graduates to proudly say, "I am from Dalhousie dental school."



---

---

## REFERENCES

### INTRODUCTION

1. Biggar, H.P. *Voyages of Jacques Cartier*. Ottawa: Public Archives of Canada, Bulletin No. 11, 1924; quoted in D.W. Gullet *A History of Dentistry in Canada*. Toronto: University of Toronto Press, 1971, p. 8.
2. *Ibid.*
3. Le Clercq, Father Chrestien *New Relation of Gaspesia, With the Customs and Religion of the Gaspeian Indians*. Translated and edited by W.F. Ganong. Toronto: Champlain Society, 1910. Vol. 5, p. 298.
4. Lescarbot, M. *Nova Francia, a Description of Acadia*. (1606, translated 1928); quoted in Van Wart, A.F. The Indians of the Maritime Provinces, their diseases and native cures. *Can Med Assoc J* 59: 573, 1984.
5. *Nova Scotia Chronicle*, March 21, 1769.
6. *Royal Gazette*, June 27, 1786.
7. *Ibid.*, November 15, 1791.
8. *Ibid.*
9. *Acadian Recorder*, December 3, 1814.
10. *Ibid.*, June 25, 1814.
11. Letter from H.M. Watson to A. Woodgate, November 18, 1848, reprinted in *Journal*, Legislative Assembly, Fredericton, New Brunswick, March 6, 1849.
12. Doyle, R.K. The wild west: the stagecoach in the Maritimes. *Atlantic Advocate* 77(8): 10-13, 1987.
13. *Charlottetown Examiner*, May 9, 1864.
14. *Ibid.*, September 21, 1857.
15. *Ibid.*, October 15, 1866.
16. *Ibid.*
17. *Ibid.*, January 26, 1857.
18. *Ibid.*, November 10, 1862.
19. Yesterday and tomorrow. *J Can Dent Assoc* 33(11):68-75, 1967.
20. *Saint John Courier*, August 8, 1844.
21. *Charlottetown Examiner*, July 6, 1878.
22. MacDougall, J.A. The earliest ether anaesthetic in British North America—a first for Saint John, New Brunswick? *Can J Anaesthesia*, 34:496-504, 1987.
23. *Royal Gazette*, February 16, 1848.
24. *Journal of the Times*, 1(1):1, September 1858
25. *Ibid.*, 1(2):4, December 1858.
26. *Charlottetown Examiner*, July 18, 1864.
27. Tomes, J. On certain conditions presented by amalgams used in filling faulty teeth. *Trans Odont Soc, G.B.*, 3:126-138, 1861-63.
28. Koch, C.R.E. (ed.) *History of Dental Surgery*. Ft. Wayne, Ind.: National Art Publishing Co., 1910. p. 115.
29. Thorpe, B.L. Eleazar Parmly, M.D., D.D.S.: traveller dentist, editor, poet. *Dent Review* 16:860-868, 1902.
30. Dental science [editorial]. *Dent Cosmos* 2:664-666, 1861.
31. Cogswell, A.C. Dentistry in the Province of Nova Scotia—past and present. *Dom Dent J* 1(1):55-57, 1889.

32. Koch, C.R.E. *op. cit.*, p. 694.
33. Beers, G.W. Poor Nova Scotia. *Can J Dent Science* 3(3): 156, 1871.
34. Koch, C.R.E. *op. cit.*, p. 1113.
35. Dewis, G.M. History of dentistry in Nova Scotia. *J Can Dent Assoc* 18: 355, 1952.
36. Woodbury, F. Reciprocity between the Dental Boards of the Dominion of Canada. *Trans Annu Meet Nova Scotia Dent Assoc* 3rd, 1893, pp. 3-4.
37. *Ibid.*, p. 10.

## CHAPTER 1

1. *The Canadian Dental Directory*. Publishers: Dominion Dental Journal , Toronto, Ont. 1909.
2. Report of the Committee on Affiliation. *Trans Annu Meet Nova Scotia Dent Assoc*, 15th, 1905, pp 11-12.
3. *Ibid.*, p. 14.
4. The function of the schools (editorial). *Dom Dent J* 5(1): 18-20, 1893.
5. Report of the Committee on Dental Education re Dental College. *Trans Annu Meet Nova Scotia Dent Assoc* 16th, 1906, p. 5.
6. *Trans Annu Meet Nova Scotia Dent Assoc* 17th, 1907. pp. 7-10.
7. Dalhousie University Faculty of Dentistry records.
8. *Ibid.*
9. *Ibid.*
10. Woodbury, H. Report of the Committee on Education. *Trans Annu Meet Nova Scotia Dent Asso*, 18th, 1908. pp. 9-10
11. Dalhousie University Faculty of Dentistry records.
12. *Ibid.*
13. Personal communication with Dr. J. S. Bagnall's son.
14. Minutes, Faculty of Dentistry 1908-63. pp. 2-9.
15. Calendar of the Maritime Dental College; also of the Faculty of Dentistry of Dalhousie University, Halifax, N.S. 1908-1909. McAlpine Publishing Co. Ltd. 1908.
16. Woodbury, F. Maritime Dental College. *Trans Annu Meet Nova Scotia Dent Assoc* 21st, 1911. pp. 17-20.
17. Dalhousie University Faculty of Dentistry records.
18. Calendar, *op. cit.*
19. *Ibid.*
20. *Ibid.*
21. *Ibid.*
22. *Ibid.*
23. Second Dean's Report of the Maritime Dental College. *Trans Annu Meet Nova Scotia Dent Assoc* 19th, 1909, pp. 10-11.
24. Minutes, Faculty of the Maritime Dental College 1908-12, pp. 1-2.
25. Dalhousie University Faculty of Dentistry records.
26. Minutes, Faculty of the Maritime Dental College 1908-12, pp. 6-44.
27. Development and Projections of the Faculty of Dentistry, Dalhousie University (oral presentation to Dental Task Force, November 4, 1971).
28. Woodbury, F. The Maritime Dental College. *Trans Annu Meet Nova Scotia Dent Assoc* 19th, 1909. pp. 22-24.
29. Minutes, Faculty of Dentistry 1908-1963, April 24, 1911, p. 15.
30. Woodbury, F. Report of Dean of Maritime Dental College. *Trans Annu Meet Nova Scotia Dent Assoc* 22nd, 1912. pp. 13-16.
31. *Ibid.*, pp. 18-20.
32. Dalhousie University, Board of Governors, Minutes, February 6, 1912. Dalhousie Archives MSI, A5. p. 112.

## CHAPTER II

1. Woodbury, H. Prosthetic dentistry. *Dom Dent J* 17:429-430, 1905.
2. Woodbury, F. Annual address of the retiring President. *Trans Annu Meet Nova Scotia Dent Assoc* 9th, 1899. pp. 3-4.
3. Dalhousie University, Board of Governors Minutes, Item: Inspection of Dental School, April 28, 1922. Dalhousie Archives MSI, A.6. p. 130.
4. Minutes, Faculty of Dentistry: 1908-1963. May 8, 1922, p. 102.

## CHAPTER III

1. Faculty of Dentistry, Dalhousie College, Halifax, N.S.[editorial]. *Dom Dent J* 24:182-183, 1912.
2. Bagnall, J.S. The development of the Dalhousie Faculty of Dentistry. *Dal Dent J* 1:7-13, 1960.
3. The Dental School of Dalhousie University. Halifax: Imperial Printers Publishing Co., n.d. p. 4.
4. *Ibid.*, p. 17.
5. *Ibid.*, p. 22.
6. Report of the Infirmary Committee, May 24, 1920. Minutes, Faculty of Dentistry, 1908-1963. p. 82.
7. Dalhousie University, Board of Governors Minutes, April 8, 1921. Dalhousie Archives MSI, A.6. p. 61.
8. Technic Report, American Association of Dental Schools, March 1931. pp. 8-67.
9. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 45th, 1935. p. 13.
10. Woodbury, W.W. Report of the Dean of the Faculty of Dentistry of Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 57th, 1947. pp. 26-27.
11. Editorial. *Oral Health* 52(2):69, 1962.
12. Bagnall, J.S. Report of the Dean, Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 59th, 1948. p. 31.
13. Halifax, *Mail-Star*, January 29, 1957.
14. Bagnall, J.S. Report of the Dean, Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 64th, 1954. p. 14.
15. Halifax *Mail-Star*, September 23, 1955.
16. Halifax *Chronicle-Herald*, September 19, 1955.
17. Dalhousie University Faculty of Dentistry records.
18. Halifax *Chronicle-Herald*, November 3, 1956.
19. *Ibid.*, October 22, 1955.
20. Halifax *Mail-Star*, December 7, 1955.
21. *Ibid.*, November 17, 1952.

## CHAPTER IV

1. Kerr, A.E. A message from the President. *Dal Dent J* 1:5, 1960.
2. Minutes, Faculty of Dentistry 1908-1963. February 7, 1962, p. 409.
3. Minutes, Faculty of Dentistry 1963-1977. June 17, 1975, p. 274.
4. Bingham, R.H. Development of the Faculty of Dentistry, 1955-1975. *Dal Dent J* 22:17-1983.

## CHAPTER V

1. McFarlane, B.A. Dental manpower in Canada. Royal Commission on Health Services. Ottawa: Queen's Printer, 1965, pp. 35-37.
2. *Ibid.*, p. 10.

3. Dalhousie University. Brief to the Royal Commission on Health Services, 1961. pp. 50-51.
4. *Ibid.*, p. 39.
5. *Halifax Chronicle-Herald*, February 7, 1976.
6. *University News*, June, 1982, pp. 1 and 7.
7. *Ibid.*
8. Bennett, I.C. Faculty of Dentistry annual report to the NSDA. *Trans Annu Meet Nova Scotia Dent Assoc*, 96th, 1986, p. 4(J).
9. Address given by Dr. G. Pentz at the Halifax County Dental Society meeting, Nov. 1985.

## CHAPTER VI

1. Boyd, M.A. Curricular trends in North America. *Intern Dent J* 38: 247-51, 1988.
2. Cunningham, D. Dalhousie dental school. *Nova Scotia Dentist* 3(4):6, 1987.
3. *Dalhousie News*, September 9, 1986.
4. *Ibid.*, January 20, 1988.
5. Zakariasen, K. Report Update, Dean, Faculty of Dentistry. *Trans Annu Meet Nova Scotia Dent Assoc*, 97th, 1987. p. 13.
6. Zakariasen, K. A message from the dean to faculty and staff on budgets and staffing for 1987-88. February 11, 1987. p.1.
7. *Dalhousie News*, March 16, 1988.
8. *Halifax Mail-Star*, October 18, 1988.
9. *Ibid.*, March 5, 1988.
10. Memo, to all Faculty from Dr. K. Zakariasen, Dean, Defining the Dental Academic Career - A Symposium, April 25, 1988.
11. Horne, H. (Secretary of the Council on Dental Education of the American Dental Association); quoted by Woodbury, W.W. Report of the Dean of the Dental Faculty, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 55th, 1945. p. 34.
12. Zakariasen, K.L. The analysis of the Faculty's strength and weaknesses, Draft Memo, 1988, p.2
13. MacLean, A.L. The dental school curriculum. *Dal Dent J* 6:1, 1965-66.
14. Read, P.C. Guest editorial. *ACFD Forum* 21(2):49-51, 1988.
15. Woodbury, F. Annual address. *Trans Annu Meet Nova Scotia Dent Assoc*, 9th, 1899. pp. 3-4
16. Osborn, J.W. Curriculum, canasta and kaleidoscopes. *ACFD Forum* 19(3):5, 1987.
17. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 48th, 1938. p. 33.
18. Zakariasen, K. Decanal report. *ACFD Forum* 20(1):14, 1987.
19. Zakariasen, K. Decanal report *ACFD Forum* 21(1): 14-27, 1988.
20. Conclusions 20.1 and 20.2. Report on the Survey of the Program heading to a DDS/DDM Degree; Faculty of Dentistry, Dalhousie University by the Survey Team of the Council of Education and Accreditation of the Canadian Dental Association, February 15-19, 1988.

## CHAPTER VII

1. Working Group on the Practice of Dental Hygiene. *The Practice of Dental Hygiene in Canada: Description, Guidelines and Recommendations*. Ottawa: Health and Welfare Canada, 1988.
2. *Halifax Mail-Star*, March 29, 1961.
3. MacDonald, K. Dental hygiene celebrates twenty years of teaching. *Dalhousie News*, 13(23): 6, 1983.

4. Trites, K. The first dental hygiene society. *Dal Dent J* 24: 19, 1985.
5. Men making mark in female domain. *Dalhousie News* 18(3): 9, 1987.
6. Lewis, S. Close Dal school — Sydney dentist. *Halifax Chronicle-Herald*, January 31, 1989, p. 15.
7. Dalhousie University, New Dentistry Building. Halifax, Nova Scotia, July 11, 1969, p. 2.
8. Zakariasen, K. Letter to the editor. *Nova Scotia Dentist* 3(7): 2, 1988.
9. Curry, C.W. Letter to the editor. *Nova Scotia Dentist* 4(1): 2, 1988.
10. Zakariasen, K. *op. cit.*

## CHAPTER VIII

1. Act of Incorporation and Amendments. By-laws and Code of Ethics of the Dental Association of the Province of Nova Scotia and Provincial Dental Board. Halifax, N.S. 1895. pp. 18-20.
2. *Trans Annu Meet Nova Scotia Dent Assoc*, 8th, 1898. pp. 16-17.
3. Editorial: Intelligence tests for dentists. *Dom Dent J* 39(1): 23-24, 1927.
4. Ryan, F.W. Dean's report to the NSDA. *Trans Annu Meet Nova Scotia Dent Assoc*, 33rd, 1923. p. 16.
5. Dalhousie University Faculty of Dentistry records.
6. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 46th, 1936. pp. 23-24.
7. *Ibid.*
8. Thomson, G.K. Report of Dean of Dalhousie Dental College. *Trans Annu Meet Nova Scotia Dent Assoc*, 36th, 1926. pp. 9-13.
9. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 54th, 1944, p. 25.
10. Bagnall, J.S. Report of the Dean of Dentistry of Dalhousie. *Trans Annu Meet Nova Scotia Dent Assoc*, 58th, 1948. p. 30.
11. Dalhousie University. *Brief to Royal Commission on Health Services*. 1961. pp. 43 *passim*.
12. Thomson G.K. Report of the Dean of Dalhousie Dental College. *Trans Annu Meet Nova Scotia Dent Assoc*, 37th, 1927. p. 33.
13. Hoar, R.E. Editorial. *Dal Dent J* 1(1): 1, 1960.
14. Schiffmann, J.R. The Dalhousie Dental Society crest. *Dal Dent J* 1(2): 43, 1961.
15. Dalhousie University. *Brief to Royal Commission on Health Services*. 1961. p. 41.
16. Dalhousie University Faculty of Dentistry records.
17. Code of Ethics of the Dental Association of the Province of Nova Scotia. *Trans Annu Meet Nova Scotia Dent Assoc*, 3rd, 1893. pp. 15-16.
18. Dentistry honors 10 years' service. *Dalhousie News*, 20(15):4, 1990.
19. Minutes, Faculty of Dentistry 1908-63. May 29, 1922. p. 108.
20. Library Committee Report to Faculty, May 3, 1988.
21. Ryan F.W. Report of the Dean of Dalhousie Dental College. *Trans Annu Meet Nova Scotia Dent Assoc*, 34th, 1924. pp. 14-16.
22. Thomson G.K. Report of the Faculty of Dentistry. *Trans Annu Meet Nova Scotia Dent Assoc*, 42nd, 1932. p. 20.
23. *Trans Annu Meet Nova Scotia Dent Assoc*, 43rd, 1933. p. 20.
24. Woodbury W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 48th, 1938. p. 34.
25. Fraser, M.D. Dalhousie Medical-Dental Library—a record of 99 years. *APLA Bulletin*.
26. Moxley B.D. Memo to Dean Zakariasen, May 5, 1987.

## CHAPTER IX

1. Thomson, G.K. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 42nd, 1932, p. 20.
2. Woodbury, W.W. Report of the Dean of the Dental Faculty, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 55th, 1945, p. 33.
3. Dalhousie University. Brief to the Royal Commission on Health Services, 1961, p. 38.
4. *Ibid.*, p. 39.
5. The Dental School of Dalhousie University, August, 1938, p.4.
6. *Dental Research News* 4(3):1, 1990.
7. Cunningham, D. Dalhousie dental school. *Nova Scotia Dentist* 3(4):6, 1987.

## CHAPTER X

1. The family dentist [editorial]. *Dom Dent J* 26(7): 337-3, 1914.
2. Bennett, I.C. Report of the Dean, Faculty of Dentistry. *Trans Annu Meet Nova Scotia Dent Assoc*, 88th, 1978. p. 12-1.
3. Papers read before the Dental Association of the Province of Nova Scotia, held September 28th and 29th, 1892, at Halifax, N.S. *Trans Annu Meet Nova Scotia Dent Assoc*, 1892-1923. pp. 10-21.
4. *Dental Bulletin* 1(2):9-19, 1902.
5. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 47th, 1937, p.22.
6. *Trans Annu Meet Nova Scotia Dent Assoc*, 47th, 1937. pp. 43-45.
7. *Ibid.*
8. *Trans Annu Meet Nova Scotia Dent Assoc*, 49th, 1939. p. 25-27.
9. Vaison, K. Dentistry's cont-ed program exceeds all previous records. *Dal Dent J* 19: 15-16, 1980.
10. Most of the information presented here is based from Dr. D. Chaytor's article "Post-College Assembly", *Dal Dent J* 24(1): 41, 1982.
11. Chaytor, K., Chaytor, D. and Poel, D., University Based Continuing Education—More than Meets the Eye. Proceedings of the 29th Adult Educational Research Conference, University of Calgary, 1988. pp. 37-42.
12. Brayton, S. President's message. *Nova Scotia Dentist* 4(2):3, 1988.

## CHAPTER XI

1. Editorial, Community dentistry. *Dal Dent J* 9:3, 1969.
2. *Pictou Bee*, August 19, 1835.
3. *Journal of the Times*, September 1858.
4. *Ibid.*, December 1858.
5. *Trans Annu Meet Nova Scotia Dent Assoc*, 19th, July 7, 1909, p. 30.
6. Dalhousie University Faculty of Dentistry records.
7. Woodbury, W.W. *Trans Annu Meet Nova Scotia Dent Assoc*, 49th, 1939, p. 16.
8. Woodbury, W.W. Report of the Faculty of Dentistry, Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 50th, 1940, p. 14
9. Dalhousie University. Brief to the Royal Commission on Health Services, 1961. p. 56.
10. Sperber, Editorial. *ACFD Newsletter* 15(1): 1, 1982.
11. *Dalhousie Alumni Magazine*, Summer 1985, p. 4.
12. Dalhousie Report, 1985-86.
13. Supplement to Halifax *Chronicle-Herald* and *Mail-Star*, October 15, 1988.
14. *Ibid.*
15. Clark, H.C. Presidential Statement on the Mission of Dalhousie University, *Dalhousie News*, 19(9): 7, 1989.



EPILOGUE

1. Editorial. *Dom Dent J* 17:461, 1905.
2. Lussier, J.P. Curriculum revision is overdue. *Inter College Dent* 29: 3, 1989.
3. Academic Plan 1986-87 Faculty of Dentistry, Dalhousie University. December 1, 1986, p. 1.
4. Woodbury, F. Report of the Dean of Maritime Dental College. *Trans Annu Meet Nova Scotia Dent Assoc*, 22nd, 1912. pp.13 - 16.
5. Bagnall, J.S. Report of the Dean of Dentistry of Dalhousie University. *Trans Annu Meet Nova Scotia Dent Assoc*, 64th, 1954, pp. 14-16.



---

## APPENDICES

### APPENDIX A

#### DEANS EMERITI

J. Stanley Bagnall  
J.D. McLean

#### PROFESSORI EMERITI

R. H. Bingham  
P.S. Christie  
H.S. Crosby  
G.M. Dewis  
A.H. Ervin  
I.K. Lubetsky  
K.M. Kerr  
W.W. Woodbury

## APPENDIX B

## GRADUATES OF THE DALHOUSIE FACULTY OF DENTISTRY

<b>1912</b> Burke, J.A. Crowe, A.B. Faulkner, A.W. Tolson, H.S.	Mackenzie, A.C. Thomas, F.C.	Macdonald, N.S. MacIsaac, S.G. McLellan, A.J. Morrison, M.E. Roop, L.B. Thompson, H.A.
<b>1913</b> Hopper, A.D.	<b>1920</b> Coysh, B.R. Milne, J.A.	<b>1924</b> Anthony, A.B. Clifford, V.F. Dalgleish, R.R. Dexter, C.R. Forbes, R.M. Fraser, H.R. Harlow, W.E. Heal, H.N. Langille, R.M. Logan, G.M. MacDougall, G.G. Magee, M.A. McIntosh, C.E. Shaffner, B.M. Somers, S.M. Sutherland, A.M. Trainor, J.C. Turnbull, G.V.
<b>1914</b> Chisholm, G.P. Cowan, C.H. Daniel, H.L. Parker, C.W.	<b>1921</b> Bagnall, J.S. Crowe, V.D. Finigan, M.D. Lawley, J.H. Lent, F.E. MacIntosh, G.P.	<b>1925</b> Browne, C.T. Dawson, W.G. Dunlop, A.A. Green, D.E. Hennigar, R.E. Johnston, L.A. Lavers, B.D. Lewis, T.H. Losada, N.A.M.
<b>1915</b> McLellan, F.F. Woodbury, K.F.	<b>1922</b> Green, G. Grono, Z.I. Hayford, A.C. Keith, W.F. MacDonald, H.W. Purdy, C.F.M. Reed, D.M. Young, W.H.	
<b>1916</b> Fraser, W.R. Nichols, M.P. Richmond, G.B.	<b>1923</b> Blanchard, F.M. Calkin, V.C. Clay, M.A. Climo, C.B.H. Crosby, H.S. Dooley, C.J. Florian, S.D. Fluck, W.L. Heal, H.H. Hogan, M.F. Johnson, K.P.	
<b>1917</b> Crosby, R.C. Ferguson, H.V.		
<b>1918</b> Adamson, H.J. Finigan, L.M. Stultz, G.N.		
<b>1919</b> Connors, M.C. Dimock, K.K. Gillespie, W.L.		

- MacDonald, G.S.  
McDonald, D.L.  
Nicholson, M.H.  
Stanford, R.H.  
Willigar, M.W.G.
- 1926**
- 1927**  
Barrett, R.H.  
Callbeck, L.M.  
Dobson, J.W.  
Eaton, H.M.  
Haverstock, A.B.  
Israel, L.G.
- 1928**  
Dewis, G.M.  
Godsoe, W.H.  
Millar, J.P.  
Smith, D.  
Tupper, J.A.
- 1929**  
Buffett, L.L.  
Cragg, T.E.  
Hill, D.J.  
MacLean, J.D.  
Miller, F.L.  
Oldfield, S.K.  
Sullivan, C.A.
- 1930**  
Clark, H.E.  
Dinsmore, G.W.H.  
Griffin, J.F.  
Harrington, R.  
Hudson, V.F.  
MacLeod, G.C.  
Nicholson, G.H.M.  
Taylor, O.C.
- 1931**  
Chaisson, R.  
Duxbury, F.R.  
Giovannetti, H.F.  
Glickman, M.E.  
Keefe, G.L.
- Lubetzki, I.K.  
Macintosh, G.K.  
McMullen, J.C.S.  
Peters, H.H.
- 1932**  
Barnstead, E.W.  
Cameron, L.C.  
Clough, O.W.  
Hogan, W.V.  
Horowitz, A.  
Kavanagh, E.P.  
Lawrence, J.W.M.  
MacLean, D.L.  
Parker, H.M.  
Pialetsky, L.  
Sinclair, A.G.  
Taylor, W.E.
- 1933**  
Allanach, L.F.  
Goldman, L.H.  
Jeannotte, L.P.  
Lieberman, L.R.  
Poss, I.  
Reddin, J.D.  
Sinclair, W.A.
- 1934**  
Barry, R.S.  
Bass, J.  
Bloomenfeld, E.J.  
Brody, M.H.  
Brody, N.R.  
Brown, A.  
Campbell, J.E.  
Davis, H.A.B.  
Eckstein, P.  
Goldstein, M.N.  
Kavalier, L.  
Kirschenbaum, S.  
Krajewski, T.  
Kushel, J.G.  
MacLeod, J.A.
- 1935**  
Bernstein, I.I.  
Bloom, P.
- Brown, L.  
Cohen, A.  
Cohen, J.  
Goldman, P.  
Jaffe, W.C.  
Roth, W.  
Schacher, S.  
Valerio, W.N.
- 1936**  
Cogle, S.K.  
Demerath, J.F.  
Disick, M.  
Forristal, F.J.  
Friedlander, L.  
Guzzetta, C.J.  
Houle, J.  
Layton, L.B.  
Liebowitz, L.  
Messinger, Z.S.  
Newman, S.H.
- 1937**  
Bauer, E.  
Conrad, S.C.  
Diamond, B.C.  
Figman, L.H.  
Greenberg, E.J.  
Jacobs, M.J.  
Joy, J.R.  
Kollender, E.J.  
Muser, R.E.  
Schwartz, L.  
Sibilia, M.A.  
Stein, P.M.  
Victor, J.J.E.  
Zacharia, D.I.  
Zuckerman, M.M.
- 1938**  
Crummey, O.W.  
Fruchter, G.J.  
Harnish, W.E.  
Lipton, M.M.  
Millar, I.A.L.  
Rogers, T.L.  
Schatz, A.M.  
Scott, W.R.  
Sloane, A.

**1939**

Aaronson, N.I.  
 Archibald, L.J.  
 Brown, H.  
 Christie, P.S.  
 Danziger, F.  
 Dubinsky, E.V.  
 Egan, C.J.  
 Freed, L.M.  
 Gold, H.M.  
 Gorlitz, L.E.  
 Kasloff, Z.  
 Kitchen, P.F.  
 Levin, R.  
 McGuigan, J.P.  
 McManus, R.A.  
 Meadow, J.  
 Peller, E.M.  
 Scarpone, V.J.  
 Shain, A.  
 Simon, L.  
 Symons, M.  
 Tokosh, J.V.

**1940**

Becker, A.M.  
 Becker, S.  
 Dowd, J.P.  
 Gladu, V.  
 Greenberg, M.  
 Merkeley, G.H.  
 Minichiello, A.J.  
 Nussbaum, A.  
 Preiss, E.  
 Smith, A.R.  
 Star, M.  
 Wallick, R.H.

**1941**

Brown, E.A.  
 Goldberg, L.S.  
 Lieberman, J.  
 Marshall, J.T.  
 Robinson, G.B.  
 Sanders, M.G.  
 White, T.H.

**1942**

Bingham, R.H.  
 Condon, J.F.  
 Kronley, S.  
 Nickerson, V.M.  
 Outhouse, P.C.  
 Schaffner, W.J.  
 Trabman, H.  
 Vaughan, J.R.

**1943 (January)**

Ball, R.W.  
 Dubrow, H.A.B.  
 Sutherland, J.B.

**1943 (September)**

Anderson, N.B.  
 Black, S.C.  
 Eaton, D.C.  
 Fennell, F.C.  
 Hallett, J.E.  
 Mallam, G.E.  
 Taylor, R.H.  
 Walker, L.W.

**1944**

Cameron, R.F.  
 Ervin, A.H.  
 Gordon, J.I.  
 Jackson, M.R.  
 Nathanson, I.  
 Rice, R.N.D.

**1945**

Bagnall, S.G.  
 Brown, S.M.  
 Fraser, E.D.  
 MacCormack, H.P.  
 MacIntosh, C.A.  
 Nower, L.B.  
 Vautour, J.D.  
 Wolteger, Z.

**1946****1947**

Burke, J.F.  
 Chernin, S.

Cusack, C.G.  
 Dubinsky, H.  
 Hinch, A.T.  
 McDonald, A.V.  
 McMaster, V.A.  
 Pentz, D.G.  
 Steuermann, A.  
 Zappler, H.S.

**1948**

Dalton, O.E.  
 Darcy, J.M.  
 Gaum, C.  
 Hardy, J.E.  
 Macneil, D.B.  
 McMurdo, W.A.  
 McNee, S.J.  
 Steeves, D.C.  
 Taylor, H.F.

**1949**

Dexter, C.E.  
 Dexter, E.F.  
 King, W.C.  
 Macneil, W.H.  
 Simon, P.  
 Whyte, E.J.

**1950**

Banks, E.M.  
 Cook, W.F.  
 Kerr, K.M.  
 Macaulay, D.W.  
 MacDonald, I.A.C.  
 McDonald, J.E.  
 Oler, C.  
 Peters, D.K.  
 Schumacher, E.L.  
 Spracklin, T.E.  
 Stack, K.

**1951**

Baxter, S.J.  
 Bona, A.D.  
 Bourque, J.D.  
 Caldwell, G.W.  
 DeWare, R.B.  
 Halford, E.D.

- McCarron, P.F.  
McGaughey, J.  
Northrup, D.L.  
Orser, G.G.  
Ramsay, G.L.  
Sansom, R.F.
- 1952**  
Barrett, G.D.  
Cobb, T.D.  
Coleman, W.B.  
Davis, R.W.  
Dwyer, W.J.  
Epstein, R.A.I.  
Franklin, E.M.C.  
Hayward, C.A.  
Hicks, D.C.  
MacIntosh, E.L.  
Phillips, O.H.  
Woodside, D.G.
- 1953**  
Aunins, V.  
Belliveau, T.E.  
Blackmer, J.G.  
Boniuk, M.  
Cowan, J.R.  
Crossman, G.T.  
Faulkner, G.H.  
Frank, A.S.  
MacConnachie, H.J.  
MacKenzie, A.G.  
MacLachlan, D.E.  
Oldham, M.P.  
Poole, D.A.  
Pugh, C.R.
- 1954**  
Charlton, D.E.  
Conter, R.  
Decker, W.B.L.  
Dickie, W.K.  
Hann, H.J.  
Harquail, M.A.  
Harrop, T.J.  
Kelland, A.L.  
MacDiarmid, B.C.  
MacIntyre, W.S.
- Meisner, H.K.  
Noges, N.G.  
Stewart, D.A.  
Young, W.H.
- 1955**  
Bull, R.L.  
Cluett, A.W.E.  
Downton, R.A.  
Eisner, D.A.  
Frost, L.J.  
Hamilton, I.M.  
Hoffman, A.E.  
Obrazcova, K.  
Pentz, R.W.  
Prentice, W.G.  
Ross, R.B.  
Sable, H.L.  
Williams, D.E.
- 1956**  
Brown, M.N.  
Fraser, J.R.  
Hollett, D.A.  
Layton, N.J.  
Marshall, D.R.S.  
Menzies, A.P.  
Morrison, E.S.  
Murphy, W.M.  
Newman, S.  
Sowden, L.F.  
Trainor, J.R.  
Windsor, R.V.  
Young, R.E.
- 1957**  
Bowden, B.L.  
Carson, J.W.  
Connors, C.F.  
Cunningham, A.E.  
Davis, J.S.  
Eadon, J.F.  
MacNeily, J.E.  
Peters, J.H.  
Reynolds, L.A.  
Russell, J.E.  
Zinck, S.M.
- 1958**  
Blake, A.H.  
Blake, K.E.  
Cashin, H.J.  
Clark, G.E.  
Conrad, G.M.D.  
Cotreau, J.C.  
Freudmann, N.N.  
King, J.J.  
MacLeod, R.W.  
Mason, W.N.  
Mollins, C.D.  
Naikauskas, D.  
Skowronek, J.  
Stewart, H.C.
- 1959**  
Anthony, G.  
Black, O.P.  
Bullock, F.G.  
Chisholm, K.G.  
Cowlshaw, V.M.  
Dewis, G.M.  
Erwood, A.R.  
Gillis, R.J.  
Hewitt, G.M.W.  
High, E.A.  
Lewis, R.J.  
Lovely, F.W.  
MacDonald, R.R.  
MacIntyre, J.P.  
MacKeigan, W.B.  
Moore, D.R.  
Rubin, D.R.  
Stewart, J.  
Travis, C.G.
- 1960**  
Campbell, D.S.  
Curry, C.W.  
Fortune, W.J.  
Fransblow, P.P.  
Girdis, N.S.  
Gray, L.C.  
Hui, M.P.  
Johnston, B.G.  
Kamachi, Y.  
Klein, A.H.

Levine, M.  
Manteit, T.J.  
Meilus, V.J.  
Miller, J.A.  
Roveda, S.I.L.  
Taddeucci, B.J.  
Turner, G.G.

**1961**

Asahina, K.R.  
Booth, W.G.  
Brogan, H.W.  
Brzak, M.S.  
Gaum, L.I.  
Gaunt, P.  
Graham, A.  
Greene, C.T.  
Murdock, F.A.  
Paturel, R.J.  
Power, J.J.  
Raddall, T.H.  
Woods, D.P.

**1962**

Andrews, N.H.  
Bonang, D.M.J.  
Buckley, K.G.  
Chan, W-H.  
Chaytor, D.V.  
Hale, J.L.  
Hayes, W.A.S.  
Hoar, R.E.  
Ingham, T.D.  
Logue, J.W.  
MacLeod, A.E.  
Murray, R.A.  
Paul, I.F.  
Russell, W.E.  
Stasiuk, J.N.

**1963**

Adams, W.O.  
Barro, W.B.  
Brown, M.  
Caslake, L.H.  
Condon, G.W.  
Daly, C.P.  
Ibrahim, T.H.

Linfield, A.J.  
MacDonald, R.M.  
Sapp, P.J.M.  
Swanzy, A.N.  
Taylor, T.A.W.  
Walsh, K.F.

**1964**

Atkinson, J.C.  
Burry, A.  
Colpitts, C.C.  
Gardner, H.D.  
Grasso, J.E.  
Harney, F.O.E.  
Hatheway, D.C.  
Robertson, J.R.  
Rowe, G.R.  
Schiffmann, J.R.  
Weeks, B.H.

**1965**

Brothers, A.F.  
Chiang, T.P.  
Chiu, E.W.F.  
Cooper, R.F.  
Dugan, F.K.  
Foley, E.F.  
Furlong, R.F.B.  
Higgins, S.M.  
Jocys, G.P.  
Macintosh, D.C.T.  
Nye, G.R.  
Ross, F.M.  
Sullivan, M.M.  
Wood, H.S.  
Zwicker, G.S.

**1966**

Amos, H.M.  
Armstrong, D.J.  
Boxer, L.C.  
Canning, R.G.  
Cleary, J.M.  
Cook, J.G.  
Cox, J.A.  
Eastwood, A.W.  
Elms, L.R.  
Giedraitis, R.A.G.

Hannigan, E.J.  
Hatch, G.W.  
Hull, L.C.  
Janes, R.A.  
Kennedy, C.A.R.  
Littlejohn, N.R.T.  
McFarlane, G.J.  
McNeill, J.L.  
Miller, D.B.  
Miner, J.F.  
Roach, J.T.  
Rondeau, B.H.M.  
Sears, G.M.  
Thompson, J.G.  
Wong, M.K.W.

**1967**

Arnold, D.E.  
Atkinson, W.E.  
Baggs, I.G.  
Beary, R.F.  
Brymer, W.D.  
Coté, A.J.  
Creighan, P.H.  
Dowd, J.T.  
Ernest, R.W.  
Fiolek, W.D.  
Gaum, E.F.  
Gray, W.A.  
Gregoire, G.K.  
Hart, B.L.P.  
Hearn, J.J.  
Lecompte, L.D.  
MacKenzie, M.R.  
MacLean, A.L.  
McMullen, J.W.S.  
Palmer, I.H.  
Rooney, J.C.  
Scott, W.B.  
Stewart, D.A.  
Terriss, G.L.  
Yee, K.  
Yuill, G.B.

**1968**

Amys, P.W.H.  
Archibald, R.J.E.  
Bissett, R.R.



- Bush, F.P.  
 Chow, C.B.  
 Easton, J.A.  
 Feeney, D.W.  
 Gregg, R.A.  
 Hawkins, C.H.  
 Hupman, A.W.  
 Jensen, M.G.  
 Kavanagh, R.J.  
 Levitz, S.J.  
 May, M.A.  
 Miller, J.R.  
 McIvor, J.C.  
 McMullin, R.E.  
 Pronych, P.M.  
 Schroeter, E.G.  
 Sexton, R.D.  
 Smith, H.G.  
 Stirling, P.F.G.  
 Thompson, W.E.  
 Tippett, I.D.
- 1969**  
 Ballard, A.J.  
 Bhardwaj, A.K.  
 Blackmore, T.H.  
 Cherun, M.J.  
 Culbert, R.  
 Cullingworth, C.A.  
 Dezan, L.G.  
 Dunne, T.P.J.  
 Elias, J.P.  
 Flieger, P.S.  
 Gordon, E.F.  
 Hajdu, J.J.  
 Jackman, D.J.  
 Jacobson, S.M.  
 Kirk, E.F.  
 McGrath, G.P.  
 Munro, A.D.C.  
 Murray, C.N.  
 Pelkey, D.E.  
 Precious, D.S.  
 Rix, R.W.  
 Shaffner, V.B.  
 Sinnott, W.M.  
 Ungerman, B.T.
- 1970**  
 Anderson, H.D.  
 Buffong, V.L.  
 Camp, W.S.  
 Chalk, W.N.  
 Chestnut, H.A.  
 Copp, D.J.P.  
 Dalzell, E.T.  
 Darlington, P.R.  
 Donald, W.O.  
 Flemming, N.J.  
 Gaum, S.T.  
 Hanson, J.A.  
 Hudgins, L.J.  
 Jackson, F.R.  
 Labenek, W.W.  
 Leppinus, R.W.  
 MacInnis, W.A.  
 Murphy, D.J.  
 O'Brien, P.C.E.  
 Rafferty, J.L.  
 Smith, W.E.  
 Vender, I.  
 Woodworth, R.W.F.  
 Yazer, M.G.
- 1971**  
 Allen, D.W.  
 Brody, L.J.  
 Christie, J.S.  
 Corey, W.A.  
 Crocker, A.D.  
 DeLong, J.B.  
 DeMone, G.R.  
 Douglas, R.C.  
 Edwards, P.F.  
 Horsman, H.W.  
 James, K.A.  
 MacConnell, M.L.  
 MacDonald, B.L.  
 MacLeod, D.E.  
 Manuel, D.G.  
 Porter, P.J.  
 Porter, R.B.  
 Shore, L.  
 Stewart, A.B.  
 Tilley, C.P.  
 Walker, B.A.  
 Wong, W.C.
- 1972**  
 Bruce, I.  
 Cameron, G.B.  
 Christie, P.M.  
 Greene, D.J.  
 Haywood, T.G.  
 Hunt, B.D.  
 Legatto, B.D.  
 Levy, T.P.  
 Lohnes, R.P.  
 MacLean, J.A.  
 MacLeod, J.B.  
 Maurice, B.H.  
 McLean, R.A.  
 McMullin, K.D.  
 Moore, D.M.  
 Murray, R.G.  
 Osherow, D.M.  
 Parsons, E.K.  
 Ramscar, J.V.  
 Roberts, M.B.  
 Sandelli, J.R.  
 Sandham, B.W.  
 Shannon, V.T.
- 1973**  
 Bennett, C.G.  
 Boudreau, H.G.  
 Deveau, R.J.  
 Devine, M.E.  
 Disney, T.V.  
 Easton, E.G.  
 Ferguson, G.S.  
 Fofie, S.K.  
 Foley, M.G.  
 Fraser, D.R.  
 Fung, M.P.C.  
 Gushue, T.J.  
 Johnson, H.F.  
 Landry-Milton, W.W.  
 MacNeil, M.A.J.  
 Manson, P.F.  
 Peach, D.F.  
 Perry, D.J.  
 Richard, L.P.  
 Richardson, M.M.  
 Rutledge, F.M.

Wade, R.H.  
Weaver, W.H.  
Wintermans, T.A.

**1974**

Archer, F.E.  
Bannerman, R.A.  
Bardsley, D.C.  
Butler, D.G.  
Cann, C.C.  
Caverhill, P.L.  
Coffin, R.D.  
Conrad, G.E.  
Corrigan, A.E.  
Creighton, J.M.  
Delaney, K.P.  
Dobson, J.A.W.  
Fitzpatrick, D.A.  
Gaudet, F.A.J.  
Giberson, I.C.  
Hills, W.H.  
Hurst, M.M.  
Keddy, S.R.  
MacKinnon, W.D.  
MacPhee, J.G.  
Maillet, W.A.  
O'Connell, D.T.  
Rector, W.R.  
Richards, F.R.  
Rideout, S.D.  
Rix, R.G.  
Roberts, S.K.  
Rose, D.E.  
Spires, B.V.  
Wade, D.C.

**1975**

Bain, C.A.  
Baird, D.G.  
Beaton, R.S.  
Christie, R.W.  
Cormier, J.R.G.  
Cyr, P.L.  
Davis, B.C.  
Gauce, G.S.  
Hogan, P.C.  
Horsman, M.F.  
Hume, R.J.

Jackman, L.L.  
Landymore, J.F.  
Larder, T.C.  
LeBlanc, R.J.  
MacDonald, G.R.  
McKnight, M.M.  
Peacocke, J.K.  
Penwell, D.J.  
Prescott, A.J.  
Wenn, R.D.  
Wright, B.A.

**1976**

Bradley, G.A.C.  
Campbell, K.M.  
Coady, M.A.  
Conrod, A.L.B.  
Conrod (Cronin) C.M.  
Craft, J.P.  
Creaser, B.A.  
Elliott, D.S.  
Fisher, D.A.G.  
Gairns, J.E.  
Goudie, W.R.  
Joshi, A.  
Kelly, M.B.  
Larder, W.E.  
Morash, G.F.  
Naugler, G.M.  
Nauss, P.R.  
Nette, A.L.  
Pass, B.  
Paynter (Ayers), S.E.  
Roxborough, J.C.  
Shaw, C.T.  
Sherrard, E.F.  
Williams, C.G.  
Williams, E.J.  
Williams, J.E.  
Zed, V.M.

**1977**

Barrett, B.D.  
Bickerton, A.T.  
Chamberlain, J-G.  
Cochrane, L.E.  
Comeau, F.D.  
Cudmore, D.R.

Findlay, G.E.  
Garland, H.W.  
Hicks, J.M.  
Holburn, M.P.  
Hood, J.G.  
Inglis, J.C.  
Jackson, P.E.  
LeBlanc, H.T.  
Lobban, D.C.  
MacDonald, G.E.  
MacEachern, E.P.  
MacPhee, M.L.  
Mailman, B.H.  
Martin, J-P.  
McQuaid, J.E.  
O'Brien, J.S.  
Roda, M.R.  
Smith, L.G.  
Smyth, F.R.  
Thompson, A.F.  
Wong, K-F.J.

**1978**

Boran, T.L.  
Boyle, T.H.  
Chong, K-L.  
Corkum, D.L.  
Dean, A.W.  
DeLorey, L.M.  
DeWolfe, R.J.  
Doyle, I.M.  
ElGeneidy, A.K.  
Field, M.A.  
Foshay, G.M.  
Green, R.D.  
Greenlaw, R.M.  
Grover, R.A.  
Halford, B.F.  
Hall, R.H.  
MacLead, J.J.  
MacPhee, C.A.  
McEwan, R.L.  
Miner, J.A.  
Murphy, J.R.  
Nemec, M.F.  
Rinehart, B.A.  
Seywerd-Van de Weg, M.S.  
Stewart, J.I.  
Vickerson, R.A.

**1979**

Baltzer, P.G.  
 Bradley, G.R.B.  
 Byers, D.E.  
 Canning, C.F.  
 Carmichael, H.D.  
 Downing, P.H.  
 Foley, T.F.  
 Goodday, R.H.B.  
 Halford, P.F.  
 Hinrichsen, G.J.  
 Laba, J.P.  
 Lapierre, C.L.  
 Locke, P.T.  
 MacDonald, P.W.  
 McKenna, K.J.  
 Myers, P.R.  
 Pollett, B.R.  
 Price, D.A.  
 Quinlan, R.P.  
 Samson, G.L.  
 Simon, E.B.  
 Stackhouse, B.W.  
 Stephenson, D.B.  
 Zwicker, A.M.J.

**1980**

Bezanson, R.H.  
 Biskupski, W.G.  
 Budovitch, B.S.  
 Copeland, R.A.  
 Doyle, M.G.  
 Dube, C.J.  
 Fay, J.W.  
 Fogarty, T.J.  
 Goodine, W.B.  
 Hagell, B.  
 Joyce, D.G.  
 Lepine, G.K.  
 MacNeil, R.L.  
 Mader, M.E.  
 McKenna, L.R.  
 McLean, R.L.  
 Melanson, R.V.  
 Peacocke, L.E.  
 Read, J.C.  
 Saunders (Seaboyer), J.A.  
 Sexton, M.R.A.

Shaw, W.R.  
 Snow, R.K.  
 Taylor, M.J.  
 Walsh, W.P.

**1981**

Allen, J.S.  
 Balcom, R.R.  
 Burk, G.A.  
 Cormier, C.J.  
 Delaney, B.J.  
 Erickson, L.P.  
 Fifield, L.W.  
 Forbes, P.A.  
 Horne, W.D.  
 Latwaitis, B.G.  
 Lewis, R.F.  
 Loveys, W.E.B.  
 MacLachlan, I.C.  
 Matchett, B.W.  
 McDermott, C.L.H.  
 McGrath, R.F.  
 Mombourquette, T.J.  
 Morean, R.B.  
 Roda, R.S.  
 Shaw-Wood, P.E.  
 Simon, A.H.  
 Stanley, R.G.  
 Stewart, R.E.  
 Wilson, R.A.  
 Winslow, D.C.  
 Worthen, V.W.

**1982**

Bancroft, W.M.  
 Bonner, M.F.  
 Bonner, P.G.  
 Breneol, M.E.  
 Buckley, R.A.M.  
 Coady, P.J.  
 Fleming, W.B.  
 Foley, G.P.  
 Houlton, J.F.  
 Laltoo, H.H.M.  
 Lawton, M.E.  
 MacDonald, P.S.  
 Messer, J.G.  
 Middlebrook, H.M.

Morrison, A.D.  
 Peddle, T.M.  
 Piekarski, J.M.  
 Robinson, I.B.S.  
 Smart, L.A.  
 Spencer, A.R.  
 Tretrice, L.W.  
 Usher, G.W.  
 West, D.C.  
 Young, A.E.  
 Yurchesyn, M.A.  
 Zwicker, P.F.

**1983**

Bailey, J.E.  
 Barry, S.M.Z.  
 Bourque, P.J.  
 Chen, R.M-Y.  
 Clarke, G.M.  
 Cormier, M.G.  
 Dunham, C.C.  
 Dunphy, R.C.  
 Emanuele, A.F.  
 Fong, G.E.  
 Haas, D.P.  
 Henderson, G.M.  
 Homewood, C.I.  
 Horncastle, S.L.  
 Lloyd, D.I.  
 MacGregor, R.O.  
 MacPherson, J.H.  
 McCarvill, M.R.  
 Morrison, M.F.  
 Murrell, S.P.  
 Musseau, D.  
 Ojoleck, M.D.  
 Opie, G.K.  
 Smith, B.H.  
 Snelgrove, K.D.E.  
 Stymiest, D.N.  
 Sumar, S.P.

**1984**

Beaton, E.M.  
 Burke-Brundige, S.E.  
 Chase, P.W.  
 Chima, S.S.S.  
 Cieplinski, M.

- Conrad, J.W.  
Hupman, T.W.  
Johnson, P.L.  
Lam, B.S.  
Lewis (Beaton), S.M.  
MacDonald, A.E.  
MacDonald, M.A.  
MacDonald, M.L.  
MacLeod, E.L.M.  
MacMurdo, E.B.  
Mailman, K.A.  
Parker, L.P.  
Presse, W.J.  
SanSouci, R.P.  
Simms, H.B.  
Trider, D.J.  
Walker, B.P.  
Walsh, D.J.
- 1985**  
Abbass, S.E.  
Ackles, T.L.  
Ames, H.W.  
Bedard, D.P.  
Bray, D.E.  
Brothers, C.D.  
Brundige, B.G.  
Butler, D.S.W.  
Chafe, R.F.  
Chaisson, T-D. M.  
Conrad, G.P.  
Cruz, R.J.  
Derakhshan, N.  
Farrell, L.E.  
Fergusson, B.N.  
Gogan, F.J.  
Gordon, S.C.  
Logue, T.A.  
Lovely, G.F.  
MacArthur, N.R.  
MacDonald, B.G.  
MacDonald, P.J.  
McMaster, D.A.  
Moore, K.W.  
Murdoch, C.A.  
Murphy, R.B.  
Norton, S.O.  
Snook, G.W.
- Tam, D.M.Y.  
Westhaver, J.D.  
Whyte, W.A.  
Williams, P.
- 1986**  
Anderson, D.R.  
Bell, P.A.  
Bower, B.P.  
Brown, C.  
Bugden, C.R.  
Burry, A.G.  
Butts, T.J.  
Cain, L.T.M.  
Cottle, C.B.  
Deveaux, G.L.  
Dignan, D.P.  
Flecknell-Smith, J.  
Francis, J.Z.M.  
Fredericks, K.R.  
Hatfield, E.R.  
Hennessey, R.W.  
Holt, S.R.  
Kiri, B.J.  
Lamont, L.  
Lozowski, U.H.  
MacAdam, D.G.  
MacDonald, R.G.  
McCluskey, A.H.  
McMaster, V.L.J.  
McTaggart, K.V.  
Ngan, K.C.L.  
Petropolis, C.N.  
Raftus, R.A.  
Riordan, C.H.  
Ross, I.W.  
Skolrood, S.L.  
Steeves, J.B.  
Stewart, D.A.  
Trites, L.F.  
Williams, J.J.
- 1987**  
Bonang, J.M.  
Bourgeois, M.  
Bourgeois, M.H.  
Brereton, D.L.  
Campbell, L.K.
- Cole, R.W.  
Diamond, G.E.  
Dobson-MacDonald,  
C.A.  
DuPlessis, B.C.  
Furzeland, F.M.  
Gatchell, G.A.  
Graham, A.J.  
Greencorn (Trainor),  
M.P.  
Haley, E.L.  
Hogan, T.W.  
Jackson, R.W.  
Johnston, D.E.  
LaBoissonniere, M.  
Laureijs, J.M.  
LeGallais, P.B.  
Lewis, T.R.  
MacGillivray, R.F.  
McGillivray, R.E.  
McGuigan, S.J.  
McIntosh, J.E.  
McKenna, D.J.  
McNeil, K.J.A.  
Orser, O.K.  
Pavlin, C.  
Phillips, K.M.  
Radall III, T.H.  
Rathee, N.  
Shannon, T.A.  
Woodworth, S.D.
- 1988**  
Arab, J.M.  
Atkinson, E.P.  
Barron, A.S.  
Boudreau, A.D.  
Brennan, J.A.  
Caisley, S.M.  
Carr-Kinnear, H.D.  
Chin Quee, T.A.  
Chisholm, B.B.  
Chiu, S.B.B.  
Clark, D.S.  
Clinton, R.J.  
Connolly, M.J.  
Dickson, M.F.  
Fobes, E.

Ford, G.S.  
 Furlong, K.M.  
 Goguen, G.D.  
 Grant, N.  
 Lovely, D.M.  
 MacKenzie, G.R.  
 MacLean, H.A.  
 MacLeod, A.A.  
 MacMurray, C.E.  
 Martell, G.A.  
 Matheson, M.J-A.  
 McCarthy, B.C.  
 McClusky, A.H.  
 McDonald-Porter, J.E.  
 McDonough, C.M.  
 Migas, C.  
 Mollins, C.S.  
 Moyles, L.T.  
 Mullins, F.A.  
 Murdoch, F.E.  
 Otto, P.J.  
 Parent, P.W.  
 Price, R.B.T.  
 Ramier, W.C.  
 Ryan, R.M.  
 Salyzyn, M.R.  
 Singh, T.A.  
 Thomson, J.P.  
 Wenn, C.A.  
 Whiting, C.J.

**1989**

Al-Hasson, H  
 Albert, D.N.  
 Bagnell, P.G.  
 Best, L.A.S.  
 Blakey, L.D.  
 Brown, M.H.  
 Cameron, P.F.L.  
 Crane, G.R.  
 Cyrus, G.A.S.  
 Davis, E.C.  
 Espie, G.J.  
 Foreman, T.F.  
 Greencorn, I.M.  
 Hoetten, F.  
 Holden, R.A.  
 Hooper, G.J.

Hughes, K.S.  
 Humphrey, J.M.  
 Jacobs, M.R.S.  
 Keigan, J.T.  
 MacDonald, M.H.  
 Makkar, A.K.  
 Manocha, J.  
 Moore, C.M.  
 Morine, R.W.  
 Munn, K.M.  
 Power, A.F.L.  
 Prager, M.H.  
 Roberts, S.M.D.  
 Rudolph, G.R.  
 Silver, C.T.  
 Stewart, J.M.  
 Thomas, J.C.  
 Tompkins, R.W.  
 Tse, D.H-S.  
 Verpoorte, M.L.  
 Witter, D.E.

**1990**

Arab, J.M.  
 Ash, C.S.  
 Bishop, M.R.  
 Blight, C.A.  
 Boland, K.M.  
 Branscombe, G.G.  
 Brown, A.M.  
 Bursey, L.M.  
 Cabrera, P.J.  
 Carter, D.M.  
 Cullinan, J.M.  
 Grabka, M.A.  
 Ingham, D.G.  
 Karst, A.C.  
 Kean, S.  
 Lutz, K.P.  
 MacDonald, A.M.  
 MacDonald, K.A.  
 MacIsaac, A.M.  
 McCarthy, F.E.  
 McNally, C.R.  
 Miller, D.P.  
 Moore, C.E.  
 Peddle, M.D.  
 Pyke, S.E.

Rabatich, A.M.  
 Ready, A.J.  
 Rhodenizer, K.B.  
 Russell, K.A.  
 Saulnier, Y.D.  
 Saxon, J.M.  
 Saxon, S.D.  
 Sharma, S.  
 Simon, M.L.  
 Theriault, C.A.  
 Trus, L.N.  
 Walsh, K.M.  
 White, B.C.  
 Wiseman, M.A.  
 Wotton, E.R.

*Source :*

*Dalhousie University calendars*

## APPENDIX C

## GRADUATES OF THE DALHOUSIE SCHOOL OF DENTAL HYGIENE

**1963**

Arron, K.M.  
McArthur, E.C.  
Walters, P.L.

**1964**

Arron, S.G.  
Batchilder, M.J.  
Card, M.J.  
Cooke, J.M.  
Denning, R.E.  
Hughes, L.M.  
Jacobson, M.S.  
Marsh, J.A.  
Robichaud, G.A.  
Smith, L.C.

**1965**

Bruce, A-M. C.  
Canning, A.D.  
Douglas, V.M.  
Forman, C.A.  
Gibson, J.P.  
Gould, S.  
Gully, C.A.  
Morrison, A.L.M.  
Norman, J.E.  
Robichaud, M.L.  
Schell, H.A.M.  
Tufts, S.A.

**1966**

Goldfarb, B.R.  
Higgins, C.F.  
Jacobson, A.  
LeBreton, J.M.  
MacKenzie, J.E.

Silver, D.M.  
Wagner, A.P.  
Waines, L.A.  
Wilson, L.L.  
Wright, A.M.

**1967**

Conrad, L.E.  
Davis, R.R.  
Dobson, D.E.  
Levine, R.B.  
MacLean, A.P.  
Stern, J.  
Zinck, T.A.

**1968**

Blaikie, B.L.  
Blei, B.  
Conway, P.D.  
Coughlan, H.  
Dooley, P.J.  
MacAskill, D.  
MacLennan, F.M.  
Munroe, L.  
Peters, A.  
Richards, D.L.  
Stewart, H.M.  
Way, M.  
Welsh, R.A.

**1969**

Butt, G.M.  
Comeau, S.E.  
Dredge, C.L.  
MacRae, H.M.  
Moland, I.S.  
Mosher, M.F.

Newman, D.L.  
Power, B.M.  
Simms, G.M.  
Stratton, P.L.  
Trask, J.M.

**1970**

Awalt, N.A.  
Boutilier, D.L.  
Briggs, M.L.J.  
Brownlee, S.E.  
Charlton, D.T.  
Connors, C.  
Kaplan, N.L.  
Kinnear, M.E.  
MacKinnon, M.H.  
McKenna, W.I.  
Lynch, S.A.  
Rushton, E.M.  
Sinnis, M.E.  
Thibault, J.G.

**1971**

Anderson, C.M.  
Barnes, J.I.  
Blake, M.A.  
Cochrane, E.J.  
Cunningham, J.V.  
Fielding, G.P.  
Francis, M.J.  
Irwin, A.M.  
Kwakernaak, G.J.  
MacKenzie, H.A.  
McGrath, R.A.  
Miller, C.W.  
Morazé, J.E.  
Munro, D.A.

- Sawler, M.A.  
 Sheaves, S.E.  
 Shore, E.V.  
 Swaine, L.L.  
 White, E.E.
- 1972**  
 Corbin, P.D.  
 D'Entremont, A.E.  
 Eisner, J.R.  
 Elkins, L.E.  
 Elliott, B.M.  
 Gallant, R.M.  
 Gaudet, M.L.  
 Gibbon, B.J.  
 Hart, J.M.  
 Jensen, A.M.  
 Little, P.A.  
 McKenna, V.E.  
 McNeil, J.S.  
 O'Neill, M.A.  
 Pollard, D.M.  
 Saunders, G.A.  
 Shupe, A.L.  
 Sturmy, B.A.  
 Taylor, N.A.  
 Turner, D.A.
- 1973**  
 Carter, S.J.  
 Garland, B.D.  
 Gillis, C.T.  
 Kerr, J.C.  
 Larder, P.M.  
 Lindsay, S.M.  
 MacIsaac, N.M.  
 Markey, S.J.  
 Penny, C.E.  
 Rafuse, H.P.  
 Robb, C.L.  
 Stanley, M.A.  
 White, D.A.
- 1974**  
 Beaton, S.M.  
 Burgess, S.L.  
 Crowell, D.A.  
 Cummings, J.E.
- Duffney, S.L.  
 Earle, P.M.  
 Fortune, B.A.  
 Gough, S.M.  
 Langille, J.M.  
 MacLean, S.J.  
 Maillet, J.M.  
 Marshall, A.E.  
 Murphy, M.P.  
 Oxford, K.J.  
 Prowse, N.R.  
 Robichaud, M.L.  
 Scott, P.K.
- 1975**  
 Boutilier, S.L.  
 Branscombe, J.  
 Brown, C.  
 Castel, P.A.  
 Coholan, M.E.  
 Darcy, S.M.  
 Deveau, D.M.  
 Hartlen, J.L.  
 Hodgson, D.A.  
 MacDonald, J.A.  
 MacDonald, S.E.  
 MacQuarrie, F.J.  
 McAlduff, L.M.  
 Morash, R.P.  
 Munro, A.V.  
 Purcell, A.M.  
 Robichaud, B.A.  
 Rogers, D.L.  
 Wade, B.L.
- 1976**  
 Appleby, A.M.  
 Babin, D.A.  
 Beairsto, C.J.  
 Burt, C.A.  
 Colbert, G.E.  
 Currie, H.D.  
 Dingwall, W.C.  
 Grover, S.W.  
 Hamilton, M-E.  
 House, G.N.  
 MacDonald, R.A.  
 MacIntosh, M.L.
- Mahoney, C.A.  
 McBride, C.L.  
 McKay, G.C.  
 Millett, L.A.  
 Mitton, J.S.  
 Moser, M.L.  
 Scott, C.E.  
 Spencer, S.G.
- 1977**  
 Babineau, L.  
 Batherson, L.  
 Cameron, D.  
 Fleet, B.  
 Forrest, D.  
 Hart, C.  
 Heisler, B.  
 Landry, L.  
 Landry, M.  
 Lenehan, J.  
 MacLean, M.  
 Maddox, D.  
 Matheson, S.  
 Robinson, T.  
 Stanford, D.  
 Starzomski, C.  
 Steeves, W.  
 Stevens, S.  
 Ward, G.  
 Watson, H.
- 1978**  
 Leger, M.J.  
 Levy, D.L.  
 MacDonald, L.A.  
 MacKeigan, K.L.  
 MacLeod, R.C.  
 Marut, A.  
 McGrail, K.E.  
 Mitchell, T.L.  
 Oldford, G.M.  
 Steeves, G.P.  
 Swinemar, W.L.  
 Wood, E.F.A.  
 Yurchesyn, K.A.
- 1979**  
 Ash, B.G.

Bourque, N.B.  
 Burrell, S.L.  
 Cant, C.M.  
 Countway, D.L.  
 Crabbe-McLean, L.R.  
 Dickie, B.A.  
 Green, A.K.  
 Jones, S.M.  
 Keating, J.A.  
 Khattar, J.C.  
 Martin, E.A.M.  
 McConnell, C.J.  
 Murnaghan, P.M.A.  
 O'Shea, R.A.  
 Pertus, M.B.  
 Rafuse, L.M.  
 Saulnier, J.L.  
 Seaboyer, P.J.

**1980**

Albert, P. M-T.  
 Bryden, S.L.  
 Conrad, J.D.  
 Curtis, I.R.  
 Fedora, W.M.  
 Greer, C.A.  
 Hubbard, H.A.  
 Kickham, K.M.  
 Lee, C.F.  
 MacCarthy, C.P.  
 MacCormick, S.A.  
 MacEachern, J.L.  
 Malloy, S.J.  
 Mills, N.L.  
 Mosher, P.K.  
 Murphy, L.R.  
 Pace, K.A.  
 Quinn, L.J.D.  
 Richard, R.J.  
 Sanford, A.L.

**1981**

Aucoin, B.M.  
 Bezanson, P.L.  
 Brown, C.L.  
 DeWare, N.A.  
 Greenwood, B.A.  
 Kaiser, G. L.

Keating, M.Y.  
 Knowles, S.L.  
 Lafferty, R.E.  
 MacDonald, D.A.  
 MacDonald, D.M.  
 MacKinnon, N.C.  
 McKenna, V.H.  
 Newell, B.J.E.  
 Rogers, D.J.  
 Seaboyer, C.F.  
 Tupper, S.D.

**1982**

Bowie, B.M.  
 Canning, K.R.  
 Chiasson, P.L.  
 Cudmore, T.L.  
 DeWare, J.T.  
 Doucet, D.M.  
 Drake, T.E.  
 Gallant, D.A.  
 Gosbee, B.E.  
 Howie, V.J.  
 Lanctin, P.M.  
 MacMullin, C.D.  
 McKnight, K.L.  
 Milroy, A.E.  
 Rutschman, V.R.  
 Tremble, C.E.  
 Varner, A.F.  
 Wadlyn, P.S.

**1983**

Andrews, E.I.  
 Brahmabhatt, D.  
 Brown, S.L.  
 Case, N.J.  
 Coombs, B.A.  
 d'Entremont, J.E.  
 Eaton, L.A.  
 Flowers, J.L.C.  
 Hiltz, L.G.  
 Hopper, D.G.  
 Howlett, M.E.  
 Kincaid, C.O.  
 MacDonald, D.M.  
 Morash, D.E.  
 Pothier, Y.M.

Ritcey, K.O.  
 Rubin, J.D.  
 Sawler, M.P.  
 Shaw, S.F.  
 Sheppard, K.E.  
 Struthers, M.J.  
 Vey, K.P.  
 Vu, H.  
 Webster, T.L.  
 Williams, R.I.

**1984**

Aucoin, G.M.  
 Bacongallo, C.C.  
 Billett, P.M.  
 Britt, D.R.  
 Cadeau, C.A.  
 Cooper, K.A.  
 Cormier, P.M.  
 Cribby, K.L.  
 Goold, S.L.  
 Goulding, G.S.  
 Graham, K.B.  
 Kennedy, M.M.  
 Killorn-Boudreau, M.L.  
 Kuchynski, C.A.  
 Kulper, J.J.  
 Landry, K.M-A.  
 MacKinnon, J-A.  
 Malloy, K.E.  
 Pitman, H.E.  
 Rice, A.L.  
 Sexton, J.L.  
 Staples, W.M.  
 Stephens, B.Z.  
 Thistle, C.A.  
 Vu, H.T.  
 Waldman, S.L.  
 White, B.J.  
 Wolfe, P.L.  
 Wright, J.J.

**1985**

Adair, S.L.  
 Alcoe, K.A.  
 Beck, B.B.  
 Berube, D.  
 Chiasson, D.A.



- d'Entremont, C.D.  
 Dougherty, D.M.  
 Gorling, C.D.  
 Gwynn, J.M.  
 Hamilton, J.L.  
 Hanna, D.M.  
 Haslam, S.K.  
 Hutchinson, D.L.  
 King, C.G.  
 Lacey, K.  
 Leadbetter, L.L.  
 Lind, J.A.  
 MacDonald, J.A.  
 MacDonald, J.F.  
 MacDonald, L.A.  
 Moran-Carter, M.C.T.  
 Park, B.J.  
 Reid, B.  
 Riley, C.P.  
 Ross, L.B.  
 Smith, L.E.  
 Thibodeau, S.A.  
 van Gogh, S.M.  
 Wentzell, G.M.  
 Whalen, C.D.
- 1986**  
 Andrews, C.A.  
 Cormier, B.M.  
 Deveau, K.R.  
 DiCesare, J.A.  
 Dolimont, J.M.  
 Dryden, D.D.L.  
 Fraser, M.M.  
 Gniewek, V.M.  
 Goodwin, C.L.  
 Hart-Delaney, L.B.  
 King, D.A.  
 Levesque, L.M.  
 Lewis, J.E.  
 MacDonald, J.E.  
 Martin, S.E.  
 McMahan, B.A.  
 Moseley, K.A.  
 Murphy, C.A.  
 Paynter, K.D.  
 Power, J.C.  
 Powers, C.F.
- Ray, L.A.  
 Romeo-MacNeil, G.J.A.  
 Sherwood, D.L.  
 Snook, D.L.  
 Trites, K.A.  
 Wagner, M.D.  
 Wolfe, S.M.
- 1987**  
 Amirault, C.S.  
 Beaton, H.F.  
 Bolstad, R.B.  
 Bourque, M.M.  
 Bourque, R.E.  
 Brittain, R.L.  
 Burke, L.A.  
 Clark, L.E.  
 d'Entremont, K.M.  
 Frost, K.L.  
 Graham, T.F.  
 Harris, D.M.  
 Hartling, D.L.  
 Haverstock, S.E.  
 Hilchey, B.L.  
 Jardine, J.A.  
 King, J.E.  
 Lang, D.M.  
 Lawlor, K.A.  
 LeBlanc, A.E.  
 Lee, C.R.  
 MacDonald, H.R.  
 MacDonald, S.L.H.  
 MacDonnell, E.F.  
 MacPhee, S.A.  
 Mason, V.L.  
 McCracken, L.A.  
 McDonald, W.M.  
 Moreside-Kiri, C.J.  
 O'Neil, H.R.  
 Reinhardt, C.C.  
 Shrum, C.A.  
 Smith, S.J.  
 Verge, T.L.  
 Veysey, H.J.
- 1988**  
 Aucoin, D.M.  
 Barkhouse, L.A.
- Bray, K.A.  
 Clark, B-H.L.  
 Coolen, C.D.  
 Cunningham, L.M.  
 Darrah, D.A.  
 D'Eon, O.M.  
 Elliott, J.L.  
 Fauria, D.E.  
 Ferguson, M.M.  
 Fox, J.J.  
 Gagnon, C.M.  
 Hart, J.D.  
 Hebert, A.H.E.  
 Holden, C.L.  
 Kehoe, M.A.  
 Kerr, N.L.  
 MacDonald, D.M.  
 MacDonald, T.L.  
 MacLean, M.L.  
 Marsh, C.A.  
 Morris, S.M.  
 Murdock, S.D.  
 Murphy, P.E.  
 Murray, S.M.  
 Neary, J.M.  
 Nippard, W.J.  
 Poulos, J.L.  
 Power, C.D.  
 Proctor, C.L.  
 Robicheau, A.M.  
 Rowlings-Clarke, J.G.  
 Roy, B.M.  
 Sparkes, C.L.  
 Tanner, C.L.  
 Tregunno, L.A.  
 van Thiel, J.F.  
 Williston, D.K.
- 1989**  
 Barkhouse, A.S.  
 Beaton, C.M.  
 Burchell, C.E.  
 Collins, E.A.  
 Comeau, G.M.  
 Doiron, D.J.  
 Dolimont, S.R.  
 Downarowicz, J.M.  
 Eldridge, L.C.

Enslow, G.L.  
 Ernst, D.L.  
 Fobin, D.L.  
 Freer, D.L.  
 Gallant, G.M.  
 Gallant, J.L.  
 Hicken, H.A.  
 Hicken, M.J.  
 Johnson, A.F.  
 Lauder, T.L.  
 Lewis, D.L.  
 MacDonald, B.J.  
 MacKenzie, S.A.  
 Martell, J.M.  
 Martin, V.L.  
 McDonald, G.M.  
 Mercer, D.W.  
 Moore, K.A.  
 Muise, M.M.  
 Muise, S.  
 Nelson, P.A.  
 Panzarasa, E.E.M.  
 Pellerin, F.C.  
 Perry, M.D.  
 Pierce, J.E.  
 Ross, R.D.  
 Stinson, F.B.  
 Taylor, W.J.  
 Thomas, K.A.  
 Wallace, L.S.

LeBlanc, S.L.  
 LeBlanc, V.D-A.  
 MacAulay, S.L.  
 MacDonald-  
 d'Entremont, H.M.  
 MacDougall, A.C.  
 MacIsaac, M.F.  
 Mahar, M.L.  
 Martin, L.M.  
 McMillan, L.M.  
 Mulak, N.A.  
 O'Malley, S.J.  
 O'Rourke, K.L.  
 Pearson, P.R.  
 Robertson, C.E.  
 Robichaud, V.L.  
 Simpson, T.L.  
 Sweet, C.J.  
 Tompkins, K.E.  
 Vail, J.E.  
 Veinot, M.L.  
 Veinotte, N.E.

*Source:*

*Dalhousie University calendars*

### 1990

Anthony, S.G.  
 Best, A.D.  
 Blatch, E.  
 Brennan, A.C.  
 Butt, S.R.  
 Campbell, J.  
 Creighton, K.M.  
 Curtis, C.D.  
 Donovan, M.J.  
 Elson, S.D.  
 Flett, C.A.  
 Fox, P.L.  
 Heinekamp, A.E.  
 Jeans, S.D.  
 Kerr, S.L.  
 Lang, S.

## APPENDIX D

GRADUATES OF THE DALHOUSIE  
MSC IN ORAL SURGERY  
PROGRAMME

Precious, D.	- 1972
Foster, C.	- 1973
Pelkey, D.	- 1974
Amos, H.	- 1975
Edwards, P.	- 1976
Stirling, P.	- 1976
Bardsley, D.	- 1977
Hajdu, J.	- 1977
Disney, T.	- 1978
Cyr, P.	- 1979
Draper, B.	- 1980
Wray, D.	- 1981
Harper, M.	- 1982
Laba, J.	- 1983
MacFadden, L.	- 1984
Fitch, S.	- 1985
Goodday, R.H.B.	- 1988
Hoffman, C.D.	- 1989
Armstrong, J.	- 1990

GRADUATES OF THE DALHOUSIE  
POST-GRADUATE PROGRAMME IN  
PERIODONTICS

Richardson, M.	- 1980
Rooney, J.	- 1980
Morrow, D.J.	- 1981
Fargher, J.	- 1982
MacPhee, M.L.	- 1982
Ismail, O.	- 1983
Sterrett, J.	- 1983
Derakshan, N.	- 1984
Fitch, M.	- 1984
Stein, H.	- 1985
Tisch, D.	- 1985
Mader, M.	- 1986
Sachdev, A.	- 1986
Coffin, R.D.	- 1987
Glasser, G.	- 1987
Toporowski, E.	- 1987
Mantha, N.L.	- 1988
Pelletier, L.	- 1988
Delaney, B.	- 1989
Gravitis, K.	- 1989
Boyce, R.	- 1990
DeLorey, L.	- 1990
Rinehart, B.	- 1990

## APPENDIX E

DALHOUSIE DENTAL GRADUATES AND/OR NSDA MEMBERS WHO WERE  
PRESIDENTS OF THE CANADIAN DENTAL ASSOCIATION

Woodbury, F.	1919-20	(Penn. C.D.S.)
Thomson, G.K.	1925-26	(Phila. D.C.)
Faulkner, A.W.	1931-32	
Woodbury, W.W.	1941-42	(Phila. D.C.)
Crowe, V.D.	1946-47	
Dewis, G.M.	1958-59	
Christie, P.S.	1965-66	
Peters, D.K.	1972-73	
Williams, D.E.	1981-82	
Robertson, J.R.	1986-87	

*Information provided courtesy of Ms. L. Burke, secretary, CDA*

## APPENDIX F

DALHOUSIE DENTAL GRADUATES WHO WERE PRESIDENTS OF THE NOVA  
SCOTIA DENTAL ASSOCIATION

Faulkner, A.W.	1914-15	Macneil, W.H.	1960-61
Hopper, A.D.	1915-16	Rogers, T.L.	1961-62
Stultz, G.N.	1923-24	MacCormack, H.P.	1962-63
Logan, G.M.	1930-31	Burke, J.F.	1963-64
Dalgleich, R.R.	1932-33	Fraser, J.R.	1964-65
Crosby, H.S.	1934-35	Pentz, D.G.	1965-66
Crowe, V.D.	1935-36	Layton, N.J.	1967-68
Calkin, V.C.	1936-37	MacIntosh, E.L.	1968-69
Duxbury, F.R.	1937-38	Anderson, N.B.	1969-70
Turnbull, G.V.	1938-39	Dexter, C.E.	1970-71
Langille, R.M.	1939-40	Dexter, E.F.	1971-72
Burke, J.A.	1940-41	Eisner, D.A.	1972-73
Israel, L.G.	1942-43	Stewart, D.A.	1973-74
Dobson, J.W.	1943-44	Bonang, D.M.J.	1974-75
Morrison, M.E.	1944-45	Canning, R.G.	1975-76
Morrison, M.E.	1945-46	Conrad, G.M.D.	1976-77
Bagnall, J.S.	1946-47	Ingham, T.D.	1977-78
Eaton, H.M.	1947-48	Christie, J.S.	1978-79
Harrington, R.	1948-49	Precious, D.S.	1980-81
Richmond, G.B.	1949-50	MacLeod, D.E.	1981-82
McGuigan, J.P.	1950-51	Turner, G.G.	1982-83
Tupper, J.A.	1951-52	Creighton, J.M.	1983-84
Parker, H.M.	1952-53	Zwicker, G.S.	1984-85
Christie, P.S.	1953-54	Larder, T.C.	1985-86
Archibald, L.J.	1955-56	Porter, R.B.	1986-87
Eaton, D.C.	1956-57	Maillet, W.A.	1988-89
Ervin, A.H.	1958-59	Conrod, A.L.B.	1989-90
Haverstock, A.B.	1959-60	Cyr, P.L.	1990-91

*Information provided courtesy of Mr. D. Pamenter, Executive Director, NSDA*

## APPENDIX G

DALHOUSIE DENTAL GRADUATES WHO WERE PRESIDENTS OF THE  
NEW BRUNSWICK DENTAL SOCIETY

*While the NBDS office has a record of dentists dating back to 1890, it does not indicate which members were Presidents of the NBDS prior to 1945.*

Hudson, V.F.	1945-46	Hayward, C.A.	1971-72
Allanach, L.F.	1949-50	Orser, G.G.	1977-78
Cogle, S.K.	1951-52	McMullen, J.W.S.	1982-83
Peters, H.H.	1954-55	McMullen, J.W.S.	1983-84
Bingham, R.H.	1955-56	Roxborough, J.C.	1986-87
Steeves, D.C.	1959-60	Schroeter, E.G.	1987-88
Bona, A.D.	1965-66	Williams, D.E.	1988-89
Deware, R.B.	1968-69	Rooney, J.C.	1989-90
Sutherland, J.B.	1969-70		

*Information provided courtesy of Ms. B. Wishart, Secretary, New Brunswick Dental Society*

## APPENDIX H

DALHOUSIE DENTAL GRADUATES WHO WERE PRESIDENTS OF THE DENTAL  
ASSOCIATION OF PRINCE EDWARD ISLAND

Green, G.	1926	Dalton, O.E.	1970
Clark, H.E.	1936	Robertson, J.	1972
Johnston, L.A.	1937	Robertson, J.	1973
Barrett, R.H.	1939	Robertson, J.	1974
Miller, J.P.	1940	Robertson, J.	1975
Keefe, G.L.	1942	Crocker, D.	1976
Callbeck, L.M.	1947	Crocker, D.	1977
Hogg, W.G.	1949	Allen, W.	1978
Phillips, O.H.	1956	Allen, W.	1979
Barrett, G.D.	1958	O'Connell, D.	1980
MacIntyre, W.S.	1960	O'Connell, D.	1981
Stewart, D.A.	1961	Porter, P.	1983
Stewart, A.	1962	Wenn, R.	1984
MacIntyre, J.P.	1963	Wenn, R.	1985
Philips, O.	1964	Coady, M.A.	1986
Smith, D.A.	1965	Archer, F.E.	1987
Mollins, D.	1966	Creighan, P.	1988
Mollins, D.	1967	Stewart, R.E.	1989
Stewart, H.	1968	McCarvill, P.J.	1990
Dalton, O.E.	1969		

*Information provided courtesy of Dr. B.D. Barrett, Registrar, Prince Edward Island Dental Association*

## APPENDIX I

DALHOUSIE DENTAL GRADUATES WHO WERE PRESIDENTS OF THE  
NEWFOUNDLAND DENTAL ASSOCIATION

*While the Newfoundland Dental Association has a record of dentists dating further back, it does not indicate which members were Presidents prior to 1948.*

Hogan, M.F	1948-49	Hewitt, G.	1971-72
Ball, R.	1954-55	Daly, C.	1972-73
Darcy, J.	1955-56	Dwyer, W.	1973-74
Darcy, J.	1956-57	Sexton, R.	1874-75
Peters, D.	1957-58	Bowden, B.	1975-76
Mallam, G.	1958-59	Hollett, D.	1976-77
Poole, D,	1959-60	Janes, R.	1977-78
Hann, J.	1960-61	Furlong, R.	1979-80
Kavanagh, E.	1961-62	McFarlane, G.	1980-81
Kavanagh, E.	1962-63	McFarlane, G.	1981-82
Obrazcova, K.	1964-65	MacDonald, G.	1982-83
Downton, R.	1965-66	MacDonald, G.	1983-84
Winsor, R.	1967-68	Greene, D.	1984-85
MacLeod, R.	1968-69	O'Brien, P.	1985-86
Walsh, K.	1969-70	Williams, E.	1988-89
King, J.	1970-71	Lawton, M.	1990-91

*Information provided courtesy of Dr. G. MacDonald, Executive Director,  
Newfoundland Dental Association*



## APPENDIX J

## THE 1991 LIST OF THE FACULTY AND STAFF

## FACULTY OF DENTISTRY

## ACADEMIC STAFF

## DEAN

Kenneth L. Zakariasen, BA; DDS; MS;  
Cert. Endo.; PhD (Minn)

## DEAN EMERITUS

James D. McLean, DDS (Tor), FICD,  
FACD, FRCD(C), FADI, Professor of  
Fixed Partial Prosthodontics and a  
member of Faculty from 1952

## ASSOCIATE DEAN FOR ACADEMIC AFFAIRS

Bruce Graham, DDS (Tor), MS, Cert.  
Pros. (Ohio St.), MRCD(C), MEd (Dal),  
Associate Professor of Prosthodontics

## ASSISTANT DEAN FOR STUDENT AFFAIRS

Robert M. MacDonald, BSc (St. F.X.),  
DDS; MEd (Dal), Assistant Professor of  
General Dentistry

## ASSISTANT DEAN FOR ALUMNI AFFAIRS

## AND CONTINUING EDUCATION AND

## ASSISTANT DEAN FOR CLINICAL AFFAIRS

Donald P. Cunningham, DDS (Tor),  
MSc (Queen's), Dip. Pedo. (Tor),  
Associate Professor of Pediatric  
Dentistry

## ASSISTANT DEAN, RESEARCH

Derek W. Jones, PhD (Birmingham), FI  
Ceram., C. Chem. FRSC(U.K.), FADM,  
Professor of Dental Biomaterials  
Science and Adjunct Professor of  
Engineering Physics, TUNS

## SECRETARY OF FACULTY

Elliott J. Sutow, BSc (Penn. St.), PhD (U.  
of Penn.), Professor of Biomaterials  
Science

## EMERITUS PROFESSORS

R.H. Bingham, DDS (Dal), FICD,  
Professor of Oral Diagnosis, and a  
member of Faculty from 1955.

George Murray Dewis, DDS (Dal),  
FACD, FICD, Professor of  
Prosthodontics and a member of  
Faculty from 1940

Arthur H. Ervin, DDS (Dal), MSc; Cert.  
Pros. (Ohio St.), Professor of  
Prosthodontics and a member of  
Faculty from 1969

Kenneth MacFarlane Kerr, DDS (Dal),  
Cert. Pros. (Ohio St.), FICD, FRCD(C),  
FADI, Professor of Prosthodontics and  
a member of Faculty from 1950

## PROFESSORS

I.C. Bennett, BDS (Liverpool), DDS  
(Tor), MSD (U. of Wash), FACD, FICD,  
Professor of Pediatric Dentistry

S.M. Brayton, BSc, DMD, Cert. Endo.  
(Tufts), FRCD(C), Dip. ABE, FADI,  
Professor of Endodontics

D.V. Chaytor, DDS (Dal), MSc; Cert.  
Pros. (Ohio St.), MRCD(C), FADI,  
FACD, Professor of Prosthodontics

M.M. Cohen Jr., BA (Mich.), DMD  
(Tufts), MSD, PhD (Minn.), FCCMG,  
Professor of Oral Pathology; Professor  
of Pediatrics, Faculty of Medicine

D.W. Jones, BSc, PhD (Birmingham), FI

Ceram., C.Chem. FRSC (U.K.), FADM,  
 Professor of Dental Biomaterials Science  
 and Adjunct Professor of Engineering  
 Physics, TUNS  
 F.W. Lovely, DDS (Dal), MS (Mich.),  
 FRCD(C), FICD, Professor of Oral and  
 Maxillofacial Surgery  
 D.G. Pentz, DDS (Dal), Cert. Perio.  
 (Tufts), Professor of Periodontics  
 D.S. Precious, DDS; MSc (Dal),  
 FRCD(C) FADI, FICD, Professor of Oral  
 and Maxillofacial Surgery  
 E.J. Sutow. BSc (Penn. St.), PhD (U. of  
 Penn.), Professor of Dental Biomaterials  
 Science  
 O. Sykora, BA (Sir Geo. Wms.), MA  
 (Mont.), DDS (McGill), PhD (Mont.),  
 Professor of Prosthodontics  
 K.L. Zakariasen, BA; DDS; MS; Cert.  
 Endo; PhD (Minn.), Professor of  
 Endodontics

## ADJUNCT PROFESSOR

H.W. King, BSc; PLU (Birmingham),  
 DIC (Imperial College), Adjunct  
 Professor of Biomaterials

## ASSOCIATE PROFESSORS

N.H. Andrews, BSc; DDS (Dal), Dip.  
 Perio. (Walter Reed Hosp.), Associate  
 Professor of Periodontics  
 W.B. Barro, BSc (Acadia), DDS (Dal),  
 MCID, Associate Professor of  
 Orthodontics - Leave of Absence  
 D.P. Cunningham, DDS (Tor), MSc  
 (Queen's), Dip. Pedo. (Tor) Associate  
 Professor of Pediatric Dentistry  
 A.K. El Geneidy, BDS, DDS  
 (Alexandria), MScD; DScD (Boston),  
 DDS (Dal), FDSRCS (Lon.), FADI,  
 Associate Professor of Oral Diagnosis  
 J.D. Gerrow, DDS (Tor) MS (Iowa),  
 MEd (Dal), Associate Professor of  
 Prosthodontics  
 B. Graham, DDS (Tor), MS, Cert. Pros.  
 (Ohio St.), MRCD(C), MEd (Dal),  
 Associate Professor of Prosthodontics  
 E.J. Hannigan, DDS (Dal), MSD; Cert.  
 Perio. (Boston). Associate Professor of

Periodontics  
 B.B. Harsanyi, BA (Colegio Alice  
 Block), DDS (Colombia), MS (Oregon),  
 DDS (Dal), FRCD(C), Associate  
 Professor of Oral Pathology  
 C.H. Hawkins, DDS (Dal), MSc (Geo.  
 Washington), Cert. Perio. (Walter Reed  
 Med. Center), Associate Professor of  
 Periodontics  
 R.E. Hoar, DDS (Dal), MSc (Texas),  
 Cert. in Maxillofacial Prosthodontics,  
 FADI, Associate Professor of  
 Prosthodontics  
 R.E. Howell, DDS (Loma Linda), Cert.  
 Oral Path. (USC), Associate Professor of  
 Oral Pathology  
 A.I. Ismail, BDS (Baghdad), MPH; Dr.  
 PH (Mich), Associate Professor of  
 Epidemiology and Community  
 Dentistry  
 J.G.L. Lovas, BSc; DDS (Tor), MSc  
 (UWO), Associate Professor of Oral  
 Pathology  
 W.A. MacInnis, BSc; DDS; MEd (Dal),  
 Associate Professor in General  
 Dentistry  
 R.B.T. Price, BDS (Lon.), LDS, RCS  
 (Eng), MSc (Mich), MRCD(C), DDS  
 (Dal), Associate Professor of Fixed  
 Prosthodontics  
 P.M. Pronych, BA (Sask.), DDS (Dal),  
 MS. Cert. Pedo (Ohio St.), Associate  
 Professor of Pediatric Dentistry  
 V.B. Shaffner, DDS (Dal), MScD (Ind.),  
 MRCD(C), Associate Professor of  
 Prosthodontics  
 N.H. Shah, BSc (N.E. London  
 Polytechnic), PhD (Univ. of London),  
 Associate Professor of Oral Biology  
 T.E. Spracklin, BA (Acadia), DDS, (Dal),  
 MScD (Tor), FRCD(C), Associate  
 Professor of Orthodontics - Leave of  
 Absence  
 J. Sterrett, BSc (Vir), DDS (Tenn), Cert.  
 in Perio. (Dal), Associate Professor of  
 Periodontics

## ASSISTANT PROFESSORS

H. Al-Hasson, MSc (Mich.), BDS

- (Baghdad), DDS (Dal), Assistant Professor of General Dentistry
- C.A. Bain, BDS (Glasgow), DDS (Dal), Cert. Perio, Cert. Fixed Pros., MScEd (Penn), Assistant Professor of Periodontics - Leave of Absence
- R.A. Bannerman, BSc; DDS (Dal), MScD (Ind), Assistant Professor of Operative Dentistry
- A.K. Bhardwaj, BDS (Lucknow), DDS (Dal), FRCD(C), Assistant Professor of Oral and Maxillofacial Surgery
- T.Blackmore, BSc (St. F.X.), BEng (NSTC), DDS (Dal), Assistant Professor of Operative Dentistry and Oral Diagnosis
- T.L. Boran, DDS; MEd (Dal), Assistant Professor of General Dentistry
- R.M. Brygider, DMD (Man), Cert. Fixed & Rem. Pros. (Med. US Carolina), Cert. Max. Pros. (Roswell Park), Assistant Professor of Prosthodontics
- G.A. Burk, BSc; DDS (Dal), Cert. Endo. (Tufts), Assistant Professor of Endodontics
- J.S. Christie, DDS (Dal), FICD, Assistant Professor of General Dentistry
- B.J. Delaney, BA (Mun), DDS; Cert. Perio. (Dal), Assistant Professor of Periodontics
- L. DeLorey, BSc (SMV), DDS (Dal); Cert. Perio. (Dal), Assistant Professor in Periodontics
- P. Demers, DDS (U. of T.), MSc (McGill), Cert. in Oral and Maxillo Surgery (Mtl. Gen'l Hosp.), Assistant Professor of Oral & Maxillofacial Surgery
- W.O. Donald, DDS (Dal), Dip. Ortho. (Alta.), Assistant Professor of Orthodontics
- M.G. Doyle, DDS (Dal), Assistant Professor of Operative Dentistry
- A.A. Drysdale, MDCM, (Dal), FRCP(C), Assistant Professor of General Anesthesia
- B. Eastwood, PhD, Assistant Professor of Statistics, Faculty of Medicine
- W.C. Foong, BSc (Hons), PhD (Portsmouth), Assistant Professor of Dental Biomaterials Science
- G.M. Foshay, BSc (Mt. A.), DDS (Dal), Cert. Perio. (Penn), MRCD(C), Assistant Professor of Periodontics
- R.H.B. Goodday, BComm ; DDS; MSc (Dal), FRCD, Assistant Professor of Oral & Maxillofacial Surgery
- T.D. Ingham, BSc (UNB), DDS (Dal), FICD, Assistant Professor of Orthodontics & Pediatric Dentistry
- J. Johnson, BSc (McGill), PhD (TUNS), Assistant Professor of Biomaterials Science
- T.C. Larder, DDS (Dal), Cert. Endo. (Tufts), Assistant Professor of Endodontics - Leave of Absence
- W.K. Lobb, DDS (Alta), MS (Mich), Assistant Professor of Orthodontics
- R.M. MacDonald, BSc (St. F.X.), DDS; MEd (Dal), Assistant Professor of General Dentistry
- D.C.T. Macintosh, DDS (Dal), FICD, Assistant Professor of General Dentistry
- N.L. Mantha, BSc, DDS (McGill), Cert. Perio. (Dal), Assistant Professor of Periodontics
- M. Matthews, BSc; DDS (UWO), Cert. in Oral & Maxillo Surgery (Eisenhower Army Med. Ctr.), Assistant Professor of Oral and Maxillofacial Surgery
- B. Pass, BSc (NY), MSc; PhD (Rutgers), DDS (Dal), Assistant Professor of Oral Diagnosis and Radiology and Dental Biomaterials Science - Leave of Absence
- L. Peacocke, BSc; DDS (Dal), Assistant Professor of General Dentistry
- A.S. Rizkalla, BEng (Cairo), MEng, (McGill), PhD (TUNS), Assistant Professor of Dental Biomaterials Science
- M.R. Roda, DDS; MSD (Dal), Cert. in FPP, (Indiana), Assistant Professor of Fixed Prosthodontics
- J. Rukavina, BSc; DDS; Cert. Pedo. (U. of T.), Assistant Professor of Pediatric Dentistry

A. Sachdev, BDS (Welsh National School of Medicine), Cert. Perio. (Dal), Assistant Professor of Periodontics  
 E.L. Smith, BA (Bishops), DDS (McGill), MCID (Western), Assistant Professor of Orthodontics  
 A.N. Swanzey, BA, (UBC), DDS (Dal), Assistant Professor of Dentistry  
 G.L. Terriss, BSc (St. F.X.), BCL (UNB), DDS (Dal), MSc; Cert. Pedo. (Rochester), Assistant Professor of Pediatric Dentistry  
 A.F. Thompson, BDS (Dundee), DDS (Dal), Dip. Ortho. (Tor), Assistant Professor of Orthodontics  
 B.A. Wright, BDS (Lon), LDS, RCS (Eng), DDS (Dal), MS (Indiana), MD (Dal), Assistant Professor of Oral and Maxillofacial Surgery

## LECTURERS

P.W.H. Amys, BSc; DDS (Dal), Lecturer in Operative Dentistry - Leave of Absence  
 P. Bourque, BSc (Mt. A.), DDS (Dal), Lecturer in Orthodontics  
 H.W. Brogan, BSc (Acadia), DDS (Dal), Lecturer in General Dentistry  
 J.R.E. Currah, BA (Queen's), DDS (McGill), Lecturer in Operative Dentistry  
 L.P. Erikson, BSc, DDS (Dal), Lecturer in Orthodontics  
 K. Fung, BSc (Dal), DDS (U. of Man.), Lecturer in Pediatric Dentistry  
 B. Hart, DDS (Dal), Lecturer in General Dentistry  
 J.F. Houlton, BDS (Bristol), FDSRCS (Eng), DDS (Dal), Lecturer in General Dentistry  
 R.J. Konopasky, BA (Windsor), MA (UWO), PhD (Windsor), Lecturer in Community Dentistry  
 W.E. Larder, DDS (Dal), Lecturer in Operative Dentistry  
 B.G. Latwaitis, BSc; BEd (St. F.X.), DDS (Dal), Lecturer in Oral Diagnosis  
 P.A. Leech, RDT (England), Lecturer in Orthodontics

W.A. Maillet, BSc (Mt. A.), DDS (Dal), Lecturer in Operative Dentistry  
 F. Mullins, D. Pharm. (College of Trades & Tech), DDS (Dal), Lecturer in Operative Dentistry  
 A. Nette, BSc; DDS (Dal), Lecturer in General Dentistry - Leave of Absence  
 W. Presse, B. Comm; DDS (Dal), Lecturer in Operative Dentistry  
 M. Salyzyn, BSc; DDS (Dal), Lecturer in Community Dentistry  
 L. Smith, DDS (Tor), Lecturer in Operative Dentistry  
 E. Toporowski, BA; DMD (Sask), Lecturer in Periodontics

## INSTRUCTORS

S. Abbass, BSc (St. F.X.), DDS (Dal), Instructor in General Dentistry  
 T. Ackles, BSc; DDS (Dal), Cert. Dental Internship (Tor), Instructor in General Dentistry and Oral Diagnosis  
 P. Bell, Dip. DH; DDS (Dal), Instructor in General Dentistry  
 S.A. Best, DDS (Dal), Instructor in Dentistry  
 H.S. Bowden, DDS (U. of Man), Instructor in General Dentistry  
 A. Burry, BSc (Acadia), DDS (Dal), Instructor in Dental Biomaterial Science  
 H.D. Carr-Kinnear, BSc (Kings), DDS (Dal), Instructor in Prosthodontics  
 B. Creaser, BSc; DDS (Dal), Instructor in Prosthodontics  
 B.N. Fergusson, BSc (SMU), DDS (Dal), Instructor in General Dentistry  
 B.W. Goodine, BSc; DDS (Dal), Instructor in Operative Dentistry  
 S. Gordon, DDS (Dal), Instructor in Oral Diagnosis  
 D.P. Haas, DDS (Dal), Instructor in General Dentistry - Leave of Absence  
 P. Johnson, BSc (Guelph), DDS (Dal), Instructor in Operative Dentistry  
 G.F. Lovely, BSc; DDS (Dal), Instructor in General Dentistry - Leave of Absence  
 A.A. MacLeod, BSc (Dal), Cert Eng (UPEI), DDS (Dal), Instructor in Oral Diagnosis

K. McGrail, Dip. DH (Dal), Instructor in Oral Diagnosis  
 C.A. Murdoch-Kinch, DDS (Dal), Instructor in Oral Diagnosis - Leave of Absence  
 S.E. Paynter, BSc; DDS (Dal), Instructor in Oral Diagnosis  
 R.Raftus, DDS (Dal), Instructor in General Dentistry - Leave of Absence  
 C.H. Riordan, BSc; DDS (Dal), Instructor in Pediatric Dentistry  
 S. Roberts, BSc; DDS (Dal), B Comm; MBA (St. Mary's), Instructor in Pediatric Dentistry  
 R.S. Roda, BSc; DDS (Dal), Instructor in General Dentistry  
 D.S. Trider, BSc; MSc; DDS (Dal), Instructor in Removable Prosthodontics  
 G. Usher, BSc (Mt. A.), DDS (Dal), Instructor in Endodontics  
 D. West, BSc; DDS (Dal), Instructor in Removable Prosthodontics  
 J.J. Williams, DDS (Dal), Instructor in Operative Dentistry  
 P. Zwicker, BSc; DDS (Dal), Instructor in Removable Prosthodontics

SCHOOL OF DENTAL HYGIENE  
 ACADEMIC STAFF

DIRECTOR

J. Clovis, Dip DH; BEd; MSc (Alberta)

ASSOCIATE PROFESSORS

J. Clovis, Dip DH; BEd; MSc (Alberta), Director of the School of Dental Hygiene  
 K.F. MacDonald, Dip DH (Forsyth), BS (Boston), MEd (Dal), Director of Alumni Affairs and Continuing Education

ASSISTANT PROFESSORS

G.M. Butt, Dip DH (Dal), BA (St. Mary's), MEd (Queen's)  
 T. Mitchell, Dip DH; BSc; MEd (Dal)

N. Prowse, Dip DH (Dal), BA (Acadia), MEd (Dal)

LECTURERS

E. Andrews, Dip DH (Dal), BSc (Acadia) - Leave of Absence  
 D. Chalmers, Dip DH; BSc (Dal)  
 P.D. Grant, Dip DH (Dal), BA (St. Mary's)  
 J. Jardine, BSc (Acadia), Dip DH (Dal)  
 M.E. Kinnear, Dip DH (Dal)  
 P.J. Maillet, Dip DH; BA (Dal)  
 H. Middlebrook, BDS; LDS (London), DDS (Dal)  
 J. Moreside-Kiri, BSc (Acadia), Dip DH (Dal) - Leave of Absence  
 D. Pascher, Dip DH (Dal)  
 H.E. Pittman-Locatelli, Dip DH; BSc (Dal) - Leave of Absence  
 C.L. Robb, Dip DH (Dal), BA (Univ of Moncton)  
 J. Thomas, BSc (Mt. A.), DDS (Dal)

INSTRUCTORS

M.L. Boudreau, Dip DH (Dal) - Leave of Absence  
 J. Elliott-Wellwood, Dip DH (Dal)  
 B. Fortune, Dip DH (Dal)  
 T. Harris, Dip DH (Dal)  
 P. Hawkesworth, Dip DH (Dal)  
 P. Hendry, Dip DH (Dal)  
 M. Kennedy, Dip DH (Dal)  
 C. Keyser, Dip DH (Dal)  
 P. Scott Dip DH (Dal)  
 D. Shaffner, Dip DH (Dal)  
 C. Thistle, Dip DH (Dal)

*Source: Dalhousie University Calendar 1991-92*

STAFF			
Dwyer, J. G.	Applied Oral Sciences	O'Brien, K.J.	Dental Clinic
Hall, G.C.	Applied Oral Sciences	Oliver, C.M.	Dental Clinic
Hames, J.	Applied Oral Sciences	Pottie, J.M.	Dental Clinic
Hidi, P.	Applied Oral Sciences	Purcell, K.A.	Dental Clinic
Hilchey, D.R.	Applied Oral Sciences	Redman, E.J.	Dental Clinic
Langman, M.F.	Applied Oral Sciences	Ruppert, J.M.	Dental Clinic
Miller, R.P.	Applied Oral Sciences	Smyth, V.A.	Dental Clinic
Robertson, K.N.	Applied Oral Sciences	Veniot, M.R.	Dental Clinic
Ruszel, B.	Applied Oral Sciences	Wallace, J.L.	Dental Clinic
Barrett, E.M.	Continuing Education	Henderson, L.L.	Dental Hygiene
DeLory, D.A.	Continuing Education	Doleman, P.S.	DIR
Ali, Y.A.	Dental Clinic	Klein, M.S.	DIR
Barron, M.E.	Dental Clinic	Moxley, B.D.	DIR
Blakeney, I.	Dental Clinic	Barron, J.R.	DMIS
Bowers, H.I.A.	Dental Clinic	Redden, M.E.	DMIS
Bradley-Thibodeau, C.A.	Dental Clinic	Webster, C.D.	DMIS
Chiasson, D.	Dental Clinic	Cunningham, K.	Imaging Centre
Collier, K.L.	Dental Clinic	Gagnon, P.A.	Imaging Centre
Courrier, D.	Dental Clinic	Smith, R.A.	Imaging Centre
Dancause, S.A.	Dental Clinic	Berrigan, J.-A.	Office of the Dean
Dennis, C.A.	Dental Clinic	Burton, S.	Office of the Dean
Duncan, J.A.	Dental Clinic	Conrad, M.B.	Office of the Dean
Farrell, D.L.	Dental Clinic	Creaser, R.	Office of the Dean
Fry, M.C.	Dental Clinic	Fraser, L.L.	Office of the Dean
Geddes, P.	Dental Clinic	Guile, E.E.	Office of the Dean
Haskins, H.J.	Dental Clinic	Mercer, D.	Office of the Dean
Hayden, A.L.	Dental Clinic	Pendergast, M.	Office of the Dean
Hindlet, J.	Dental Clinic	Schneider, E.	Office of the Dean
Holm-Laursen, M.R.	Dental Clinic	Wallace, S.M.	Office of the Dean
Holman, C.A.	Dental Clinic	Webb, N.	Office of the Dean
Hutchison, A.	Dental Clinic	Bennett, S.	Oral Diagnosis
Jackson, A.E.	Dental Clinic	Mahoney, D.L.	Oral Maxillofacial Surgery
MacAulay, A.J.	Dental Clinic	Gallant, L.M.	Oral Pathology
MacDonald, J.E.	Dental Clinic	MacLean, R.E.	Oral Pathology
MacLean, C.A.	Dental Clinic	Wile, M.R.	Oral Pathology
MacLennan, J.J.	Dental Clinic	Mansfield, S.A.	Pediatric & Community Dentistry
Mariott, K.A.	Dental Clinic	Allen, W.D.	Production Lab
McKay, A.K.	Dental Clinic	Aucoin, N.A.	Production Lab
Minogue, M.	Dental Clinic	Banfield, D.W.	Production Lab
Munroe, E.M.	Dental Clinic	Carvalho, V.R.	Production Lab
Myers, M.L.	Dental Clinic	Clark, G.S.	Production Lab
Naugler, M.E.	Dental Clinic	Friis, B.T.	Production Lab
Nause, N.B.	Dental Clinic	Fultz, J.L.	Production Lab
		Gillis, M.J.	Production Lab

Greenwood, H. A.	Production Lab
Johnson, E.I.	Production Lab
Myers, L.A.	Production Lab
Schaefer, M.W.	Production Lab
Zinck, R.B.	Production Lab
Corkum, S.E.	Restorative Dentistry
Emms, R.L.	Restorative Dentistry
Faulkner, A.M.	Restorative Dentistry
Munteer, G.I.	Restorative Dentistry

*Source: Office of the Dean*





---

---

## INDEX OF PERSONS

- Abbass, S., 138  
Abramovitch, K., 127, 136  
Ackles, T., 138  
Adams, E.E.O., 82  
Adams, W.O., 127  
Adamson, H.J., 76  
Agnew, M.F., 9  
Agnew, S.C., 225  
Al-Hasson, H., 139  
Aldrich, J., 225  
Allen, D., 183  
Almon, W.B., 40  
Amos, H.M., 104, 171  
Amys, P.W.H., 121  
Anderson, D., 215  
Anderson, F.S., 41  
Anderson, P.G., 206  
Andrews, A.G., 104  
Andrews, E., 136, 153  
Andrews, N.H., 104  
Angelopoulos, A.P., 104  
Angle, E.H., 11  
Anrep, V.K. von, 11  
d'Anville, duc, 3  
Archer, 8  
Archibald, L.J., 82, 229  
Arnold, J.R., 153  
Arron, K.M., 152, 156  
Arslan, J., 127  
Arthur, C., 184  
Arthur, R., 12  
Ashley, N., 6, 19  
Asuncion, J.R., 136  
Ayers, J.H., 41  
  
Bagnall, J. Stanley, 19, 39, 55,  
75, 76, 85-88, 92, 102, 103, 131,  
133, 171, 191, 192, 204-206  
Bagnall, John S., 19, 41  
Bagnall, S.G., 103, 104  
Bain, C.A., 121, 140  
Baker, 201  
Balloch, W.A., 8  
Banfield, W., 136, 215, 229  
Bannerman, R.A., 105, 136  
Banting, F., 191  
Barbour, F.W., 41, 201  
Barnstead, E.W., 82  
Barrett, G.D., 87  
  
Barrett, W.C., 31  
Barro, P.L., 138  
Barro, W.B., 121, 140, 141  
Barry, S., 138  
Barton, S.J., 153  
Baxter, L.M., 205  
Beath, J., 4  
Beckwith, W.H.H., 35, 40, 46,  
76, 204-207  
Beers, G.W., 18, 24  
Bell, P., 138  
Bennett, I.C., 100, 114, 130, 132,  
133, 140, 188, 209  
Best, S.A., 139  
Bhardwaj, A.K., 104  
Bilodeau, L.P., 138  
Bingham, R.H., 92, 100, 107,  
109, 112, 113, 120, 126, 128,  
129, 133  
Bissett, F. W., 82  
Black, G.V., 11, 12  
Black, H.W., 41  
Blackerby, P.E., 92  
Blackmer, J.G., 104  
Blackmore, T.H., 104  
Blahut, P., 121  
Blakeney, I., 183  
Blaszczynski, M., 184  
Bogwell, J.S., 24  
Bonang, D.M.J., 100  
Bonwill, W.G.A., 11, 12  
Boran, T.L., 121, 130, 131, 136  
Boucher, C., 101  
Boudreau, M.L., 154  
Bourque, P., 127  
Bowden, B.L., 93  
Bowden, H.S., 139  
Boyd, M., 134  
Bradley-Thibodeau, C., 183  
Brayton, S., 105, 137, 199, 209,  
217  
Brodie, M., 81  
Brogan, H.W., 127, 131, 230  
Brothers, A., 171  
Brown, G.P., 153  
Brown, P., 24  
Brunnett, 20  
Brygider, R.M., 127, 136, 227  
Brymer, W., 171  
  
Buchanan, D.E., 127  
Buchanan, W.M., 205  
Budzinski, W., 128  
Bullard, 20  
Bulyea, H.E., 201  
Burk, G.A., 127  
Burke, J.A., 76, 166, 171, 205  
Burke-Brundige, S., 138  
Burnham, J.R., 101, 149, 151-  
153, 155, 176  
Burns, 20, 201  
Burry, A., 138  
Butt, G., 152, 153, 176, 188, 215  
  
Caesar, G.J., 163  
Caisley, S.M., 153  
Caldwell, G.W., 87  
Calkin, V.C., 204, 205  
Callahan, J., 185, 193  
Camber, W.D., 19  
Cameron, G.S., 85  
Carabelli, G., 14  
Carmichael, H.D., 127  
Carr-Kinnear, H.D., 139  
Cartier, J., 2  
Carvalho, V., 230  
Caslake, L., 215  
Cates, W.T., 201  
Caverhill, P., 215  
Chalmers, D., 136, 153  
Champlain, S. de, 2, 3  
Chaytor, D.V., 104, 125, 140,  
181, 209, 210, 212, 214, 215,  
230  
Chaytor, (Vaison) K., 209, 210,  
214  
Chedraoui, B.P., 127  
Chin-Queen, T., 137, 138  
Chisholm, G.P., 76  
Chiverie, L. de (Chevry), 5, 18  
Christie, J.S., 105  
Christie, M., 182  
Christie, P., 215  
Christie, P.S., 82, 97, 132  
Chudleigh, G.A., 81, 203, 204,  
205-207  
Churchill, W., 225  
Cicero, M.T., 1  
Clark, H.E., 205

- Cleary, J., 171  
 Clement, 7  
 Climo, C.B.H., 81, 204, 205  
 Clovis, J., 137, 152, 153  
 Cochran, L.E., 121  
 Cogswell, A.C., 15, 18, 24  
 Cogswell, A.W. 20, 24, 40, 47,  
 57, 58, 76  
 Cohen, M.M., 126, 127, 195  
 Condon, G., 215  
 Connor, R.A., 104  
 Connors, M.C., 76  
 Conrad, G.M.D., 104  
 Contreras, T., 187  
 Corkum, S.E., 105  
 Corston, J.R., 40  
 Cowan, C.H., 76  
 Cowan, W.D., 50  
 Cox, J.A., 104, 171  
 Coysh, B.R., 76  
 Creaser, B., 138, 215  
 Creighton, J.M., 121  
 Croft, O.L., 82, 86  
 Crosby, H.S., 81, 105, 123-125,  
 205, 207, 212, 213  
 Crosby, R.C., 76  
 Crowe, A.B., 76, 166, 171, 205  
 Crowe, V.D., 76, 205  
 Cunningham, A.R., 40  
 Cunningham, D.P., 104, 135,  
 136, 209, 211, 216, 226, 227,  
 229  
 Cunningham, V.F., 41  
 Currah, J.R.E., 138  
 Cyr, P.L., 127, 137
- Daitch, A., 206  
 Daniel, H.L., 76  
 Das, A.K., 100  
 Davis, F.R., 204  
 Dawson, W.G., 81, 102, 148,  
 204, 207  
 Day, B.W., 14  
 Delaney, B.J., 139  
 DeLorey, L., 139  
 Demers, P., 139  
 Dewis, G.M., 20, 82, 112, 205,  
 212, 213  
 Dexter, C.E., 87, 208, 215  
 Dexter, E.F., 87, 208  
 Dickie, W.K., 104  
 Dimock, K.K., 76  
 Dobson, J.W., 81, 86, 203-205,  
 207  
 Donald, W.O., 121  
 Dow, H., 8  
 Dowd, J., 171  
 Dowell, W.C., 82, 205.
- Doyle, M.G., 127  
 Drake, T., 153  
 Drysdale, A.A., 100  
 Dubeau, 201  
 Dugan, F., 171  
 Dummett, C.O., 218  
 Dunbar, H.G., 41  
 Dungy, A., 211  
 Dunlop, A.A., 82, 205  
 Duxbury, F.R., 82, 205  
 Dwyer, J., 185  
 Dyke, E., 204
- Eagan, C.J., 205  
 Eagar, W.H., 76  
 Eastwood, A.W., 100  
 Eastwood, B., 139  
 Eaton, D.C., 82  
 Eaton, H.M., 82, 86, 192, 205-  
 207  
 Eisner, D.A., 100  
 Eisner, J.E., 121, 181, 190, 195  
 ElGeneidy, A.K., 105, 140, 215,  
 227  
 Elliott-Wellwood, J., 154  
 Ellis, P., 187  
 Ennis, L.R.M., 207  
 Epstein, R., 100  
 Erikson, L.P., 127  
 Ervin, A.H., 87, 126, 178, 208
- Faulkner, A.W., 60, 61, 76, 128,  
 166, 171, 187, 192, 204-207  
 Faulkner, G.H., 87, 141, 215  
 Faulkner, P.L., 104  
 Feely, W., 183  
 Fennell, F.C., 87  
 Ferguson, G.S., 105  
 Ferguson, H.V., 76  
 Fergusson, B.N., 139  
 Field, M.A., 121  
 Fielding, G.P., 153  
 Findlay, J., 100, 193  
 Finigan, L.M., 76  
 Finigan, M.D., 76  
 Fisch, A.L., 209  
 Fiske, C., 8  
 Fitch, M.M., 127  
 Fluck, G.H., 35, 40, 46, 76  
 Foley, M., 215  
 Foley, T.F., 138  
 Fones, A., 147  
 Foong, W.C., 139  
 Forester, T.A.D., 8  
 Forgay, M.G.E., 136, 152, 153,  
 155-158  
 Forrest, E., 153  
 Fortier, R.A., 105
- Fortune, B., 153  
 Foshay, G.M., 121  
 Foss, S., 9  
 Fournier, F.R., 195  
 Frank, A.S., 100  
 Franklin, E.M.C., 104, 141  
 Fraser, A., 90, 91  
 Fraser, J.R., 100, 208  
 Fraser, L., 180, 183  
 Fraser, W.R., 76, 205  
 Freud, S., 11  
 Fry, C., 183  
 Fultz, L., 183  
 Fung, K., 139
- Gagnon, P., 190  
 Gardner, D., 171  
 Gardner, O., 184  
 Garretson, J.E., 11  
 Gerrow, J.D., 128, 140, 143  
 Gibson, D.K., 121  
 Gies, W.J., 69, 144  
 Gillespie, W.L., 76  
 Gillis, M., 183  
 Ginley, T., 208  
 Giovanetti, H.F., 205, 212  
 Glasser, G., 136  
 Glover, N.A., 9  
 Goddard, P., 187  
 Godsoe, F.A., 19, 41  
 Goethe, J.W. von, 146  
 Goldberg, L.S., 87  
 Goodday, R.H.B., 139  
 Goodine, B.W., 138  
 Goodwin, W.S., 41  
 Gordon, D.C., 105, 205  
 Gordon, S., 138  
 Gorham, C.F., 41  
 Gourley, A., 153  
 Gourley, J.M., 104  
 Graefe, A. von, 11  
 Graham, B.S., 121, 131, 136,  
 139, 140  
 Grant, H.G., 204  
 Grant, L., 185  
 Grant, P.D., 105, 136, 153  
 Grasso, J.E., 104  
 Gravitis, K., 138  
 Gregg, B.G.E., 121, 136, 215  
 Griffin, J.F., 81, 205  
 Gwinnett, A.J., 104
- Haas, D.P., 127, 138  
 Hall, G.C., 183, 185  
 Hall, J.A., 105  
 Hallett, 20  
 Hames, J., 183  
 Hann, H.J., 105

- Hannigan, E.J., 104  
Hannigan, P., 153  
Harrington, M.P., 24, 41, 200  
Harrington, R., 205  
Harris, C.A., 11  
Harris, F.D., 59  
Harris, T., 153  
Harrison, R.L., 128  
Harsanyi, B., 104, 136  
Hart, B., 138, 171, 215  
Hart, E.R.K., 41  
Haskins, H., 183  
Hauff, 164  
Hatch, G., 215  
Hathaway, J.C., 8  
Haverstock, A.B., 81, 192, 204-206  
Hawkins, C.H., 127, 136, 230  
Hawthornthwaite, P., 154  
Hayden, H.H., 14  
Head, S., 4  
Hébert, L., 3  
Heider, M., 11  
Hendry, P., 154  
Hennigar, G.R., 76, 186, 204-206  
Hicks, H.D., 103  
Hidi, P., 185  
Hilchey, D., 185  
Hind, B., 119  
Hinrichsen, G.H., 105  
Hoar, R.E., 105, 130, 136, 140, 172, 227, 230  
Hoffman, A.E., 93, 100, 193  
Hogan, A.F., 41  
Hogan, W.V., 82, 205  
Hopper, A.D., 76, 205  
Horne, W., 138  
Horsman, H., 215  
Horsman, M., 208  
Houlton, J.F., 127, 226  
Howell, R.E., 127  
Hsu, P., 129  
Hull, C., 171  
Hume, 4  
Hunt, P.G.C., 12  
Hunter, W., 13, 47  
Hutchinson, T., 7  
Hutchison, A., 183
- Ibrahim, T.H., 104, 136, 215  
Ingham, T.D., 104, 215  
Ismail, A.I., 138
- Jackson, G., 127, 136, 137, 229  
Jardine, J., 154  
Jensen, G.M., 104  
Jimenez, E., 184  
Johnson, F.W., 205
- Johnson, J., 139  
Johnson, J.A., 24  
Johnson, K.P., 205  
Johnson, P., 138  
Johnston, B., 138  
Johnston, S.R., 206  
Jones, D.W., 105, 130, 135, 136, 193-195, 228  
Jordan, R.E., 100  
Jost, W.H., 82
- Kaiser, G., 153  
Kaplan, N., 127  
Kavanagh, E.P., 205, 212  
Kearney, B.P., 104  
Keddy, S.R., 127, 215  
Kelly, W.F.B., 166  
Kennedy, M., 154  
Kerr, A.E., 87, 88, 90, 92, 96, 103, 112, 149  
Kerr, K.M., 87, 101, 182  
Keyser, C., 153  
Kilcup, G., 153  
Kimmins, R., 127  
Kincaid, C., 153  
King, H., 155  
King, H.W., 138  
King, W.C., 100  
Kingsley, N.W., 11-13  
Kinnear, M.E., 136, 153  
Kiri, J.B., 138  
Kirk, E.F., 104  
Klein, M., 183, 189  
Kneisel, F.C., 11  
Knox, S.M., 152, 153  
Koch, R., 11  
Koller, K., 11  
Konopasky, R.J., 127  
Koss, S.A., 153  
Krause, C., 187  
Kronis, M., 105
- Landymore, J.F., 105  
Langille, M.K., 24, 41  
Langille, R.M., 205  
Langman, M.F., 185  
Larder, P.M., 152, 153  
Larder, T.C., 121  
Larder, W.E., 121  
Latwaitis, B.G., 127  
Lavigne, D., 216  
Lawley, J.H., 76  
Layton, L., 208  
Layton, L.B., 205  
Layton, N., 215  
Layton, N.J., 104  
Layton, N. McG., 205  
Le Clercq, C., 2
- Leech, P.A., 138  
Lehr, 76  
LeMay, W.R., 127  
Lemian, L., 211  
Lent, F.E., 76  
Lescarbot, M., 2  
Levine, M., 193  
Lilienthal, B., 105, 199  
Lindsay, A.W.H., 35, 40  
Littler, G.M., 39, 51, 73, 91, 180, 181  
Lloyd, D., 204  
Lobb, W.K., 139  
Logan, G.M., 81  
Logue, T.A., 138  
Losch, P.R., 207  
Louvestre, 164  
Lovas, J.G.L., 127  
Lovely, F.W., 100, 198, 199  
Lovely, G.F., 138  
Lowry, I.K., 203-205  
Lubetsky, I.K., 81, 89, 113
- MacAllister, 9, 219  
MacAskill, D.L., 153  
MacAulay, M.A., 40  
MacConnachie, H.J., 87, 126  
MacDiarmid, B., 208  
MacDonald, A., 136, 153  
Macdonald, B., 215  
MacDonald, D., 154  
MacDonald, J., 187  
MacDonald, K.F., 135, 136, 151-153, 156, 157, 208, 209, 214-216  
MacDonald, R.E., 40, 46, 76  
MacDonald, R.M., 104, 136, 140, 174, 226  
MacDonald, W.I., 153  
MacEachern, W., 119  
MacGregor, S.A., 207  
MacInnes, E.L., 121  
MacInnis, W., 127, 130, 131  
MacIntosh, A., 151  
Macintosh, D.C.T., 104, 215  
MacIntosh, G.K., 205  
MacIntosh, G.P., 76  
MacKay, 35  
MacKay, A., 215  
MacKay, V.N., 40  
Mackenzie, A.C., 75, 76, 170, 187  
Mackenzie, A.S., 52, 62, 68, 69  
MacKinnon, C.G., 87  
MacLachlan, D.E., 100  
MacLean, D.R., 205  
MacLean, J., 215  
MacLean, J.D., 205

- MacLean, R., 183  
 MacLeod, A.A., 139  
 MacLeod, A.E., 104, 152, 158  
 MacNeil, R.L., 127  
 Macneil, W.H., 87  
 MacPhee, M.L., 127  
 MacPherson, J., 184  
 MacPherson, S.  
     (née Macintosh), 182  
 MacRae, H., 153  
 MacRae, M., 180  
 Mader, M., 127, 136  
 Magee, J.M., 18, 19, 24, 41, 201  
 Magitot, E., 11, 14  
 Mahoney, D., 183  
 Maillet, J.M., 154  
 Maillet, W.A., 127  
 Mantha, N.L., 138  
 Marshall, A.M., 82  
 Martell, G.A., 138  
 Massler, M., 198  
 Matthews, M., 139  
 McArthur, C.S., 41  
 McArthur, E.C., 152  
 McAvenney, A.F., 19, 41  
 McCarthy, B., 139  
 McDonald, 19  
 McGrail, K., 138  
 McGuigan J.P., 86, 87, 89  
 McIntosh, 202  
 McKay, S., 183  
 McKenna, A.J., 20, 200  
 McKenzie, K.A., 40  
 McLean, A., 171  
 McLean, J.D., 87, 88, 91, 92, 95,  
     96, 99, 102, 103, 107, 112, 113,  
     131-133, 148, 169, 172, 188,  
     193, 198, 209  
 McLellan, F.F., 76  
 McLellan, I.F., 205  
 McLeod, J.A., 205  
 McMeekin, R.J., 41  
 McMullen, J., 215  
 McNee, S., 208  
 McNeil, D.B., 87  
 McNeil, J., 171  
 McQueen, P.R., 121  
 Melanson, T., 205  
 Melotte, G.W., 24  
 Mercer, D., 156  
 Mercer, D., 183  
 Merritt, J.E., 87, 208  
 Messer, J., 224  
 Middlebrook, H., 154  
 Miles, D.A., 127  
 Miller, J.W., 127  
 Miller, W.D., 47  
 Milne, E.L., 185  
 Milne, J.A., 76  
 Miner, J., 171  
 Miner, A., 127  
 Mitchell, E.A., 151, 153  
 Mitchell, T., 131, 153  
 Mitton, D.L., 153  
 Mont, Sieur de, 2  
 Moore, J.W., 41  
 Moore, S.A., 206  
 Moore, S.L., 209  
 Morash, D., 136, 153  
 Moreside-Kiri, J., 154  
 Morley, J., 181  
 Morrison, A.D., 127.  
 Morrison, E.S., 100  
 Morrison, J.B., 11, 12  
 Morrow, D.J., 127  
 Morton, W.T.G., 11  
 Moxley, B., 183, 188-190  
 Mullins, F., 139  
 Munroe, E., 183  
 Murdoch, C.A., 138  
 Murphy, D.J., 105  
 Murphy, J., 131  
 Murphy, M.P., 153  
 Murray, C.A., 18, 19, 24, 41  
 Murray, 201  
 Murray, L.M., 40  
 Murray, R., 215  
 Murray, W.A., 100  
 Murray, W.C., 35, 40  
 Müller, J., 11  
 Nasmyth, A., 11  
 Nessel, F., 14  
 Nette, A.L., 127  
 Nichols, M.P., 76  
 Nippard, W., 155  
 Noble, J.A., 81  
 Noble, D., 187  
 Nutley, A.G., 82  
 O'Brien, G.W., 205  
 O'Brien, S., 215  
 O'Connor, S., 136, 153  
 Oldfield, S.K., 81, 205  
 Oler, C., 87  
 Oxner, W.C., 40, 46, 76, 192,  
     204-206  
 Özcan, K., 176  
 Paine, 9, 219  
 Palmer, I., 215  
 Paré, A., 12  
 Parker, C.W., 76  
 Parker, E.R. ("Painless  
     Parker"), 6, 19  
 Parker, J., 154  
 Parmly, E., 14  
 Pasher, D., 154  
 Pass, B., 127, 138, 225  
 Passavant, G., 12  
 Pasteur, L., 11  
 Patillo, A.S., 82  
 Paynter, S.E., 121  
 Peacocke, L.E., 127  
 Peglar, E.C., 153  
 Pentz, D.G., 86, 87, 131, 140,  
     174, 180, 200  
 Pentz, R.W., 105  
 Penwell, D.J., 121  
 Penwell, S., 121  
 Perry, L.V., 181  
 Phelan, P.M., 153  
 Phillips, R.W., 126  
 Pittman, H.E., 154  
 Plimpton, J., 4  
 Popper, K., 25  
 Porter, P.J., 105  
 Porter, R., 215  
 Precious, D.S., 104, 199, 209  
 Preiswerk, G., 11  
 Presse, W., 139  
 Prest, H., 210  
 Price, R.B.T., 127, 136  
 Priddy, R.W., 121  
 Pronych, P.M., 104, 140, 142,  
     188  
 Prowse, N., 136, 153  
 Purcell, E.J., 182, 188  
 Purcell, K., 226  
 Purkyne, J.E., 11  
 Raftus, R., 138  
 Randall, E.A., 41  
 Rao, S.R., 104  
 Retzius, A.A., 11  
 Rice, J.H.H., 55, 205  
 Richardson, D.S., 128, 226  
 Richardson, M., 215  
 Richmond, G.B., 76  
 Riordan, C.H., 139  
 Ritchie, R., 204  
 Ritchie, S.G., 40, 47, 57, 59, 76,  
     192, 203-207, 222  
 Rizkalla, A.S., 138  
 Roach, J., 171  
 Robb, C.L., 154  
 Roberts, S., 127, 136  
 Robertson, J.R., 132, 171  
 Robertson, K., 185  
 Roda, M.R., 121  
 Roda, R.S., 138  
 Roger, A.T. 100, 101, 119, 120  
 Rogers, M.A., 160  
 Rondeau, B., 171

- Rooney, J., 215  
 Rozovsky, L.E., 127  
 Röntgen, W.C., 11  
 Rukavina, J., 139  
 Ruszel, B., 185  
 Ryan, F.W., 20, 27, 35, 40, 46,  
 76, 77, 102, 133, 165, 186, 187,  
 200
- Sachdev, A., 138  
 Salyzyn, M., 139  
 Sapp, J.P., 104  
 Saunders, de R.L., 93  
 Sawyers, A.J., 24  
 Schaller, D.O., 137, 138  
 Schiffmann, J.R., 172  
 Schroeter, E., 215  
 Scott, P., 136, 154  
 Scott, W., 187, 205  
 Seabrook, M., 210  
 Seccombe, W., 85  
 Seneca, L.A., 232  
 Sexton, F.H., 46  
 Seyward, M., 121  
 Shaffner, P.D., 153  
 Shaffner, V.B., 104, 215, 230  
 Shah, N.H., 139  
 Shannon, V.T.W., 121  
 Sheaves, S.E., 121  
 Shore, L., 127  
 Silver, D.M., 153  
 Silver, L.M., 40  
 Sinclair, W.M., 82  
 Sloanaker, M.G., 151-153  
 Slonne, A., 205  
 Smallwood, F.E., 41  
 Smith, E.L., 121  
 Smith, L.B., 121  
 Smith, T.P., 76  
 Smyth, F., 215  
 Smyth, V., 183  
 Snow, H.W., 205  
 Spicer, S.W., 205  
 Spracklin, T.E., 100, 136, 141,  
 215  
 Sproul, G.A., 171  
 Sproule, G.J., 19  
 Stanford, R.H., 205  
 Stanley, C., 204  
 Steeves, G., 136, 153  
 Stent, C., 12  
 Stephens, R.G., 100  
 Sterrett, J., 128, 136, 176, 227,  
 230  
 Stevens, F.W., 40, 200  
 Stewart, A.B., 104  
 Stewart, D.A., 104  
 Stirling, P., 128
- Strawn, C., 136  
 Strickland, C.L., 10, 11  
 Stultz, G.N., 76, 205  
 Sutow, E.J., 105, 130, 215  
 Süersen, F.W., 12  
 Swanzey, A.N., 104  
 Sykora, O., 105, 136, 142, 208,  
 215, 225, 227  
 Sylvester, 219
- Taylor, T.A.W., 104.  
 Temple, H.P., 40  
 Templeman, 4  
 Terris, G.L., 104  
 Thistle, C., 154  
 Thistle, J.M., 187  
 Thomas, F.C., 76  
 Thomas, J., 154  
 Thomas, J.P., 104  
 Thomas, R., 215  
 Thomas, R.E., 127  
 Thompson, A.F., 138  
 Thompson, J., 171, 215  
 Thompson, W., 215  
 Thomson, G.K., 24, 27, 35, 40,  
 46, 76, 77, 80, 102, 133, 170,  
 191  
 Thomson, H.S., 204, 205  
 Tisch, D., 138  
 Toit, du P.R., 139  
 Tolson, H.S., 76, 166, 171  
 Tomes, J., 11, 12, 14  
 Toporowski, E., 136, 138  
 Torrens, B.H., 19  
 Trider, D.J., 136, 138
- Usher, G., 138
- Vaison, (Chaytor) K., 209, 210,  
 214  
 Van Buskirk, G., 8  
 Van Buskirk, L.E., 8, 9, 14  
 Vaughan, J.R., 87, 205  
 Virchow, H., 11  
 Virgil, P.M., 163  
 Vogan, W.I., 105, 199, 200  
 Voltaire, J.F.M.A., 164
- Walker, A.S., 206  
 Walters, P.L., 152  
 Warner, E.M., 94  
 Warren, P.H., 171  
 Webb, N., 180  
 Webster, A.E., 85, 200  
 Weeks, B., 171  
 Wells, H., 8, 11  
 Wenn, R., 215  
 Wenning, A.S., 100
- West, D., 138  
 Wetmore, H.C., 24, 41  
 Whitcomb, 12  
 White, W.H., 19  
 Wichsell, G.P., 24  
 Wile, M., 185  
 Williams, D.E., 123, 124  
 Williams, J.J., 138  
 Willmott, J.B., 85  
 Wintermans, T.A., 105  
 Wong, M., 171  
 Wood, J., 210  
 Woodbury, F., 20, 21, 23, 24, 26,  
 27, 35, 40, 41, 47, 51, 52, 55,  
 59, 63, 66, 68-70, 73-76, 102,  
 133, 144  
 Woodbury, F.V., 40, 76, 84, 206  
 Woodbury, H., 24, 35, 40, 46,  
 50, 63, 64, 66, 76, 200  
 Woodbury, K.F., 66, 76, 83, 204,  
 205  
 Woodbury, R.H., 46, 66, 76, 77  
 Woodbury, W.W., 40, 46, 66,  
 76, 80-85, 102, 133, 145, 166-  
 168, 192, 195, 202, 203, 205-  
 207, 222  
 Wright, B.A., 121  
 Wright, F., 55
- Xenophon, 163, 164
- Young, 192  
 Young, A.E., 138  
 Young, E.G., 203  
 Young, W.G., 104
- Zakariasen, K.L., 133-140, 142,  
 146, 159, 190, 194, 195, 197  
 Zambolin, L.M., 152, 153, 215  
 Zinck, R., 230  
 Zwicker, A.M., 128  
 Zwicker, G.S., 105, 215  
 Zwicker, P., 138

