9 L. Wolsh Various Leaves of aboure. McGILL UNIVERSITY OFFICE OF THE DEAN FACULTY OF DENTISTRY March 8, 1932. MONTREAL. Sir Arthur Currie, Principal, McGill University. Dear Sir Arthur .-The annual meeting of the American Association of Dental Schools will be held March 21st. to 24th. I have been invited to discuss two papers on Oral Diagnosis, as per enclosed letter, inview of this invitation and the importance of attending both the International Association for Dental Research, as well as the school session. I would ask for leave of absence during that time. In order that I might have the opinions of members of Faculty I have sent invitations, as per enclosed, for a meeting next Monday evening. There will be, in all probability, ten present, and it would be very pleasant indeed if you could see your way clear to have dinner with us from 6:30 to 8:p.m. and of course, if possible, to remain for the meeting. Yours faithfully, Cirthur L. Walsh. Acting Dean.

McGILL UNIVERSITY OFFICE OF THE DEAN FACULTY OF DENTISTRY March 7, 1932. MONTREAL, COPY DR. G. S. Cameron 1240 Union Ave., Montreal. Dear Dr. Cameron .-You are possibly aware of the emphasis that is being placed on the teaching of "Oral Diagnosis" in the curriculum of some of the American Dental Schools. In order that we may have an open discussion you are invited to attend a meeting on Monday, March 14th at 6:30 p.m. Dinner will be served at the Faculty Club, 3600 University St. and followed immediately by discussion on " Should the Dental School of McGill University organize a separate department to teach Oral Diagnosis". Your host, the undersigned, will have information relative to what some schools are doing in this matter. Those invited to attend are the members of Faculty and two active members of the Operative Department's staff. Yours fraternally, ALW/AF. Acting Dean.

UNIVERSITY OF MINNESOTA College of Dentistry, Minneaplis. March 1,1932. Dr. A.L. Walsh, ""C O P Y." McGill University, College of Dentistry, Montreal, Canada. Dear Dr. Walsh. Having been informed by Dr. Arthur Rowe of Columbia University that you are to discuss Doctor Wahlquist's and my papers on Oral Diagnosis at the Dental Teachers I Convention at Columbus, Ohio, March 22nd. I am forwarding to you under separate dover copies of these papers. We feel highly honored to have you discuss these papers and it gives us great pleausre to look forward to your comments and criticisms. Sincerely yours. E.J.Brekhus, D.D.S.

March 9th, 1932. Dr. A. L. Walsh. Acting Dean, Faculty of Dentistry. Dear Dr. Walsh, I am this morning in receipt of your kind invitation to dine with you on Monday evening next at six-thirty at the Faculty Club. I am very sorry indeed, but that will be impossible. I am the more sorry, because I know you will have a useful discussion. I will gladly grant you leave of absence to attend the Annual Meeting of the American Association of Dental Schools March twenty-first to twenty-fourth next. Yours faithfully, Principal

November 23, 1931. Dr. A. L. Walsh, Acting Dean, Faculty of Dentistry.
McGill University. Dear Dr. Walsh. In reply to your letter of November 1st, I confirm my approval of leave of absence being granted to you from the 7th to 14th Pebruary in order to take a course in Advance Exedentia with Dr. Winter at Washington University, under the conditions set forth in your letter. Yours faithfully, Principal. wer apply

McGILL UNIVERSITY OFFICE OF THE DEAN FACULTY OF DENTISTRY MONTREAL, NOV. 21, 1931. Sir Arthur Currie, Principal, McGill University. Dear Sir Arthur .-Following our conversation of yesterday I am hereby applying for leave of absence from 7th to 14th of February, 1932 in order that I might take a short course in advance Exodontia with Dr.George B. Winter at Washington University. The fee of Two Hundred dollars for the course, as well as, all expenses travelling, etc. will be taken care of personally. Yours faithfully, archut Lual ALW/AF. Acting Dean.

McGILL UNIVERSITY FACULTY OF DENTISTRY OFFICE OF THE DEAN Montreal. Nov. 28, 1930. Sir Arthur Currie, Principal McGill University Montreal. Dear Sir Arthur .-Not knowing exactly when you expect to return from your Asiatic trip I am writing to ask for three months leave of absence to include June, July and August 1931. I am anxious to secure more experience in the field of Oral Surgery, and intend spending considerable time in Paris and Vienna. I am also anxious to become better acquainted with the teaching of dentistry in Europe, and have already begin communication with Dr. N. King, Secretary of Medical Education of the United Kingdom. I have been appointed by 8th Interage 1931 national Dental Congress, which will be held in Paris, to act as chairman of the Anatomy Section of that convention. This is not a request for funds, but for a little extra time. Yours faithfully, arthur Pwolh Acting Dean. ALW/AF.

OFFICE OF THE DEAN

McGILL UNIVERSITY

FACULTY OF DENTISTRY

Montreal, May 19, 1931.

Sir Arthur Currie, Principal, McGill University.

Dear Sir Arthur .-

Allow me to suggest for your consideration that you request Professor F.G.Henry to take care of all correspondence addressed to the Dental Faculty during my absence from June 10th to September 1st. Miss Ferguson, who is thoroughly acquainted with the secretarily part of this work, would keep in touch with Professor Henry, and I would suggest that applications be considered with the advice of Professor J.C.Simpson.

Allow me to thank you for your expression of good will in my trip to Europe, and to assure you that my earnest endeavour will be to study the European Dental situation, particularly, that of the British Isles with special reference to reciprocal arrangements with the latter, having already been in communication with Major N.C.King, Registrar of Medical Education of the United Kingdom.

Yours faithfully ,

Acting Dean.

arthur Dwalsh.

ALW/AF.

Máy 21, 1931. Dr. F. G. Henry. 1410 Guy Street. Montreal. P. Q. Dear Dr. Henry. As you know, Professor Walsh is leaving for Europe and does not expect to return until September 1st. It will therefore be necessary for some one to look after the correspondence of the Faculty of Dentistry between June 10th and September 1st. I understand that Miss Ferguson is thoroughly cognisent with the secretarial part of the work, and if you are willing to take charge of the correspondence in Dr. Walsh's absence I think things would run smoothly. If you have no objection to helping out in this way, I will ask Dr. Walsh to have Miss Ferguson get in touch with you, and in the matter of applications for admission I would respectfully suggest that you consult with Professor J. C. Simpson of the Medical Faculty. Yours faithfully. Principal

May 21st, 1931 Dr. A. L. Walsh. Faculty of Dentistry. Dear Dr. Walsh, I have written to Professor F.G. Henry and to Professor J.C. Simpson, following out the suggestion contained in your letter of May 19th for arrangements necessary to take care of the routine work of the Dental Faculty in your absence. I hope you will have a very pleasant summer. Yours faithfully, Principal

M ay 21, 1931. Dr. J. C. Simpson, Secretary, Faculty of Medicine. Dear Dr. Simpson, Dr. A.L. Walsh tells me that he expects to be away from June 10th to September 1st, and that Dr. F. G. Henry will look after the correspondence of the Dental Faculty in his absence. I have made the suggestion that in regard to applications for admission Dr. Henry consult with you. Would it be agreeable to you to act in an advisory capacity when Dr. Henry finds it necessary to deal with applications? Yours faithfully, Principal

BANK OF TORONTO BLDG. GUY & ST. CATHERINE STS. MONTREAL. 22 May 31 Dir arthur Currie The Principal and Vice Chareello. Mc Gel Meversity Dear Si. City In reference to your note of yesterday. It will be a pleasure to assist in any way in helping during Prof: Walship absence in Eurobse. French far three weeks in the tatter part of august, of expect to be in the City during the summer and shall devoke the necessary ture to the work

MCGILL UNIVERSITY MONTREAL May 22nd, FACULTY OF MEDICINE 1 9 3 1. OFFICE OF THE DEAN Sir Arthur W. Currie, Principal - McGill University, Montreal. My dear Sir Arthur, I have your letter of the 21st inst. I shall be very glad indeed to advise Dr. Henry in the matter of applications for admission to the Faculty of Dentistry, or in any other way that you or he desire. Yours faithfully, Secretary, Faculty of Medicine.

AMERICAN ASSOCIATION OF DENTAL SCHOOLS

Survey of the Dental Curriculum

Progress Reports of the
CURRICULUM SURVEY COMMITTEE
Submitted to the
AMERICAN ASSOCIATION OF DENTAL SCHOOLS
MARCH 23, 1932

- I. Report of the Chairman of the Committee, by Wallace Seccombe
- II. Report of the Executive Committee, by L. E. Blauch
- III. Report on the Objectives of Dental Education, by J. T. O'Rourke

Members of the Committee:

WALLACE SECCOMBE, Chairman
Dean, Faculty of Dentistry
University of Toronto

ARTHUR D. BLACK Dean, Dental School Northwestern University JOHN T. O'ROURKE, Sec.-Treas. Dean, School of Dentistry University of Louisville

H. EDMUND FRIESELL
Dean, School of Dentistry
University of Pittsburgh

HARRY M. SEMANS
Dean, College of Dentistry
Ohio State University

Educational Advisers:

FLOYD W. REEVES
Professor of Education
The University of Chicago

W. W. CHARTERS
Director, Bureau of
Educational Research
Ohio State University

Executive Secretary: L. E. BLAUCH

I. REPORT OF THE CHAIRMAN OF THE COMMITTEE

Mr. President, Ladies and Gentlemen:

The Committee on the Survey of the Dental Curriculum was appointed by the American Association of Dental Schools in March, 1930. It was authorized to select advisers and formulate the general plan on which to make the survey and curriculum analyses. As finally constituted, the Committee consists of the following: Dr. Wallace Seccombe, University of Toronto, Chairman; Dr. John T. O'Rourke, University of Louisville, Secretary-Treasurer; Dr. Arthur D. Black, Northwestern University; Dr. H. Edmund Friesell, University of Pittsburgh; Dr. Harry M. Semans, Ohio State University.

During the first year following its appointment the Committee held five meetings. Two educational advisers were selected to assist the Committee in its work. The men so chosen are Dr. W. Wallace Charters, Director of the Bureau of Educational Research, Ohio State University, and Dr. Floyd W. Reeves, Professor of Education, The University of Chicago. Both of these men have had extensive experience in educational surveys and in other forms of educational service. The Committee also developed a tentative plan for the study. A report of progress was made to the Association in March, 1931.

In May, 1931, the Committee selected Dr. L. E. Blauch as Executive Secretary, to give full time to the work of the Survey. Dr. Blauch received the degree of Doctor of Philosophy from The University of Chicago in 1923. For three years he was employed by the United States Government, first as a special agent of the United States Employment Service, and later as the Specialist in Charge of Land-Grant College Statistics in the Bureau of Education. He was for eight years Professor of Education in the North Carolina College for Women. His practical experience includes surveys of higher education in Arkansas, Arizona, Oklahoma, Massachusetts, Georgia, Tennessee and New Jersey, and the Survey of Methodist Colleges recently completed.

The office of the Survey of the Dental Curriculum is comfortably located in convenient quarters at the Northwestern University Dental School. Chicago is a central location and many schools can easily be reached from that point. Three dental schools are located in the city, thus affording much opportunity for consultation on problems of dental education. Northwestern University has an unusually fine library of dental books and periodicals, and in many ways our location in this building has proved fortunate.

In its work the Committee has constantly held to the instructions received from the American Association of Dental Schools. Its first undertaking is to determine the dental health needs of the public. This is being done by collecting data from laymen, public health officials, physicians, and dentists, each group contributing their views of dental health service. The dentists are furnishing lists of the conditions with which they have to deal, and lists of things they are called upon to do. Dental health needs as revealed in discussions in books and periodicals are also being studied. In these ways the Committee is proceeding to find out for what services the dental practitioner should be trained.

Having provided for a determination of the services which the dentist should be trained to render, the Committee is arranging to have experts in the various fields of study determine the knowledge and skill which should be mastered by the student before graduation in order that he may be prepared to render proper dental health service. This is to be done by careful analysis. First, the content of the clinical courses, such as operative dentistry, prosthetic dentistry, oral surgery, orthodontia, etc., will be determined on the basis of the services which the dentist should be trained to render. This content will then be organized in units for teaching purposes.

The content of the basic sciences, such as chemistry, physiology, bacteriology, histology, etc., will then be investigated. The supporting and prerequisite knowledge and skill which these sciences should supply as a foundation for the clinical courses will be determined. This content, together with additional material necessary to develop logical and coherent units, will then be organized for teaching purposes.

After the content of the courses has been organized, an effort will be made to determine the amount of time necessary to insure mastery of the various subjects. This will be done by securing the judgment of various teachers of the different courses.

From the dental schools the Committee is securing information on the general conditions of dental education, objectives of the schools, the present curriculum, recent trends in curriculum development, curriculum requirements, teaching procedures employed, number of students enrolled, etc. In this, as well as every other phase of the work, only those data are being collected which have a bearing on the curriculum.

As there is opportunity the Executive Secretary is visiting dental schools to acquaint himself with the conditions of dental education, and to learn from the officials and faculty members what progressive practices are carried out in the schools, as well as to obtain information relating to the dental curriculum.

Much of the preliminary information needed from laymen, public health officials, physicians, and dentists has already been collected and tabulated. The dental schools have also supplied data which have been tabulated. This part of the work is going forward as rapidly as possible, while plans are being developed for the later stages of the Survey.

Within the past few weeks the Committee has made a report of its work to the Carnegie Corporation, with a request for the payment of the balance of the appropriation (amounting to \$10,000) for carrying on the work of the Committee during the coming year. This amount has since been received by the Treasurer of the Association.

The next meeting of the Committee will be held in the offices of the Carnegie Corporation in New York City. It is our intention to discuss with the Corporation the plans for the further development of the survey. As the study proceeds it is becoming more and more apparent that phases of dental education closely related to the curriculum for training the general dental practitioner, should be studied. These include such problems as: graduate work, the training of specialists and teachers, student personnel, vocational guidance, selection and

orientation of students, methods of teaching, licensure and the relation between the supply of dentists and the demand for their services, and the various economic aspects of dental education.

The funds contributed by the Carnegie Corporation for the support of the Survey are held by the Secretary-Treasurer of the American Association of Dental Schools, subject to payment on order of the Curriculum Survey Committee. An office and travel expense fund of \$700 has been made available for the use of the Executive Secretary, \$200 of which is used as a bank balance to carry the account. This fund is replenished from time to time as it is expended. Receipts are secured for the expenditures from the office and travel fund, which make possible an adequate audit.

The Committee takes this opportunity to express its gratitude to the dental schools for their cooperation. There is every reason to believe that the survey will come to a successful conclusion. The Committee is a unit in its work. It is constantly avoiding all discussion of "plans" for dental education until the facts needed for scientific conclusions have been obtained and analyzed.

I had hoped that Dr. Arthur D. Black would be here this morning to introduce our Executive Secretary. Owing to his absence I wish to say that at the series of educational conferences held in connection with the recent dedication of the new Graduate Education Building at the University of Chicago, Doctor Blauch was selected to present the subject of "Curriculum Surveys in Higher Education." Your Curriculum Survey Committee regards this not only as a personal tribute to its Executive Secretary, but also as a recognition of the important educational work being accomplished by this Association.

Doctor Blauch is devoting his entire time to the work of the Survey. He will report in greater detail on our purposes and activities.

Submitted on behalf of the Committee,

WALLACE SECCOMBE, Chairman.

II. REPORT OF THE EXECUTIVE SECRETARY OF THE COMMITTEE

1. INTRODUCTION

Mr. President, Ladies and Gentlemen:

In this part of our progress reports it is proposed to do two things, first, to discuss briefly the nature of curriculum surveys in higher education, and, second, to describe in a general way the work done to date on the Survey of the Dental Curriculum.

Curriculum surveys in higher education may be roughly classified in two groups. One group consists of investigations made to appraise existing curriculums. The other group consists of studies of life situations intended as a basis for designing new curriculums.

2. Surveys of Existing Curriculums

A number of surveys of existing curriculums in higher education have been made to disclose their purposes, content, organization and effectiveness. The earliest of these curriculum investigations constituted parts of general surveys in which the curriculum was treated along with other topics.

Among the first surveys of this type was the epoch-making study of medical education in the United States and Canada made in 1910 by the Carnegie Foundation for the Advancement of Teaching. In this case the surveyor visited all the medical schools in both countries and collected extensive data on their curriculums, as well as on other features of their service and administration. Throughout the discussion there is no hesitation to point out clearly the shortcomings of the content of medical education as it was then provided. Very few educational surveys have had such immediate and pronounced effects as this one.

This study was soon followed by other surveys: (1) medical education in Europe (1912), (2) engineering education (1917), (3) the professional preparation of teachers (1920), (4) legal education (1921 and 1928), and (5) dental education (1926). All of these surveys

were carried out on plans similar to that followed in the first study of medical education. They were efforts to evaluate current practices and to recommend lines of improvement.

Recently a rather extensive survey of engineering education was made under the auspices of the Society for the Promotion of Engineering Education. This survey was "directed to a study of the objects of engineering education and the fitness of the present-day curriculum for preparing the student for his profession." It was designed to set forth the nature and the weakness of the curriculums in operation and to indicate such modifications or developments as would seem to make for sound, well-balanced, and fruitful courses of study for engineering students.

Practically all of the engineering schools were visited by one or more members of the survey staff, and the schools supplied extensive data on their curriculum policies and practices. Graduates of engineering schools, influential members of the principal national engineering societies, and engineering teachers, through questionnaires, contributed observations of the need for training in engineering, the value of the training available, and the reforms which should be made. On the basis of these facts and opinions an effort was made to appraise the curriculums in engineering and point the way of progress. The findings were reported in great detail in a document of more than a thousand pages.

The surveys mentioned exemplify the investigations which have been made to evaluate current practices and show how those practices should be improved. There have been a number of surveys of this general type. They have been productive of much good, and the progress of higher education owes much to them.

3. Surveys to Devise Curriculums

The second group of curriculum surveys are designed to establish in detail the content which should comprise curriculums. They are not much concerned with the curriculums offered by the schools. Rather, they seek, from a study of life situations, to discover the social needs which men and women attending a given type of educational institu-

tion should prepare themselves to serve. On the basis of these social needs, course content is determined and curriculums are devised.

This method of curriculum investigation has popularly been known as "job analysis." The term "job analysis" seems to have been used originally in business and industry. It is not sufficiently descriptive or comprehensive to employ in connection with curriculum studies. The term "activity analysis" has been used, but it is also rather limiting. "Life situation analysis" and "functional analysis" are better terms to employ in characterizing the technique.

The functional analysis method of curriculum construction has been extensively used in the field of vocational education on the trade level. Numerous vocations have been analyzed to determine the content necessary to prepare men and women to engage in those vocations.

Since 1920 the functional method of curriculum study has been applied to higher education. Surveys of this type have been made, or are in process, in the education of women, the training of pharmacists, education for librarianship, the training of teachers, training in veterinary medicine, and now education in dentistry.

The analysis of life situations as the basis for determining curriculum content is the method used in the Survey of the Dental Curriculum. The first step is to discover the *dental health needs* of the public. Other fundamental factors in dental education will also receive consideration. On the basis of these data the survey will proceed to analyze the knowledge and skill necessary to prepare men to render adequate service to the public. Finally, this knowledge and skill will be organized in a curriculum to be recommended to you.

It is undoubtedly apparent to you that the Survey of the Dental Curriculum is *not* a direct effort to appraise or evaluate the curriculums now offered by the dental schools. Although the curriculum resulting from the investigation should be valuable as a check against curriculums now provided, no attempt will be made by the Survey to classify the institutions in any way.

This general statement regarding curriculum surveys has been made in order that there may be a clear understanding of the work which is being done by the Dental Curriculum Survey.

4. Dental Health Needs and Dental Practice from the Point of View of the Layman

We now proceed to a statement of the work done by the Survey to date. This is merely a progress report. You will understand, therefore, that no final conclusions can be stated. In fact, no definite conclusions have yet been reached.

The *first* project undertaken was to obtain the layman's point of view regarding *dental health needs and dental service*. For this purpose two inquiry forms were carefully devised, one on "Dental Health Needs of the Public" and one on "Qualities and Traits of the Dentist." In preparing these forms, a number of laymen were interviewed to learn their ideas about dental service and dental health needs, and trial forms were sent to a number of laymen. In the light of the returns, the two forms were modified, and somewhat more than 500 of each were sent to different persons residing in 31 states of the United States and eight provinces of Canada. These persons represented various vocations and community interests. A total of 345 forms were returned.

The 168 replies on "Dental Health Needs of the Public" give some rather interesting indications of the conception of the public regarding the health needs for which the dentist should render service. On the basis of these replies the item "Thorough examinations of teeth and jaws" stands at the top of the list. Other items taking very high rank are (1) "Use of X-Rays in the examination of teeth and jaws," (2) "Instruction on the care of children's teeth," (3) "Treatment of irregularities of the teeth," and (4) "Diagnosis and treatment of diseased conditions of the gums."

These laymen were also asked to indicate which dental health needs, in their opinion, the dental profession fails to meet adequately. One of the most significant features of the replies seems to be the feeling that the dental profession fails to give instruction relating to oral health. The public also apparently feels that diseased conditions of the gums are not adequately cared for by the profession. Another item which, in the estimation of the public, seems to be much neglected, is the use of X-Rays in the examination of teeth and jaws. A large percentage of the laymen replying think the profession fails to meet adequately

the need for the treatment of irregularities of the teeth. In general, the dental profession, according to the judgments given, meets fairly well the needs in the purely operative and prosthetic procedures, such as restorations and replacements, prophylaxis, and extraction of teeth, but even in these a significant number of laymen find deficiencies. The greatest deficiencies are apparently in (1) the instruction of the public, (2) the care of the soft tissues of the mouth, (3) the cooperation of dentists with physicians, and (4) the treatment of irregularities of the teeth.

The 177 laymen who returned the forms on "Qualities and Traits of the Dentist" place a very high estimate on some qualities and a lower estimate on other qualities. The qualities and traits ranked highest are, for the most part, those which make for a high grade of service. Care and accuracy in work and cleanliness stand at the top of the list. On practically the same plane are placed honesty and trustworthiness in serving patients and keeping up to date on professional work. Certain qualities and traits which are rather personal take high rank, such as avoiding having an offensive breath and having his own teeth well kept. Other traits, such as taste in dress, being interesting in conversation, and having broad intellectual interests, stand near the bottom of the list, but are nevertheless regarded by many laymen as important.

The laymen were also asked to indicate their opinions as to whether they found the listed qualities and traits lacking in dentists. The laymen who replied apparently think dentists do not cooperate sufficiently with one another on difficult cases, either in consultation or in referring patients. A rather high proportion say they find dentists lacking in justice and fairness in charges for their services. Laymen charge many dentists with not keeping up to date in their professional work. An item in which dentists to a large extent are regarded as lacking is broad intellectual interests. From an educational point of view this may have some significance, especially if further investigation should substantiate this opinion. The opinions submitted would lead one to think that dentists generally have a good personal appearance, pleasing personality, self-control, well-kept teeth, refined manners, and good taste in dress. Many special comments submitted by the laymen indicate a very high respect for their dentists. Others,

however, think too many dentists do not keep up to date in their work, dislike to work for children, and fail to hold to ethical ideals.

5. Dental Health Needs from the Point of View of Public Health Officials

The second project undertaken was to study dental health needs from the point of view of public health officials. Through interviews, letters of inquiry to public health officials, and a trial form, a questionnaire was developed on "Dental Education and Public Health." It was sent to public health officials in 47 states of the United States and eight provinces of Canada. Ninety-nine questionnaires returned were filled out in such a way that the data could be tabulated.

The questionnaire included a list of twelve items of service which, it was found, dentists more or less frequently render in public health work. The public health officials indicated which services dentists rendered in their public health programs and which services they thought dentists *should* render in such programs. Judged by the replies, each of the twelve items listed should have an important place in public health work, and inferentially, dentists should be trained to render these services. The items are:

- 1. Care for the teeth of indigent public school children.
- 2. Give talks on dental health to parent-teacher and similar associations.
 - 3. Cooperate in pre-school clinics.
 - 4. Make an annual dental examination of all school children.
- 5. Do charity work (corrective, restorative) in clinics for indigent persons.
 - 6. Teach dental health to children in public schools.
 - 7. Work at lower rates for persons unable to pay regular fees.
 - 8. Instruct mothers in the care of children's teeth.
- 9. Instruct expectant mothers in the care of their teeth during pregnancy.
 - 10. Instruct expectant mothers in the development of children's teeth.
 - 11. Prepare newspaper articles on dental health.
 - 12. Give radio talks on dental health.

The same public health officials were also asked to state the degree of deficiency, if any, which they found among dentists, in certain elements which are regarded as important in public health work. According to the data obtained, the greatest weaknesses in dentistry from the point of view of public health work would appear to be the lack of interest in dental health education, the lack of information to use in dental health education, and the lack of interest in the care of children's teeth, particularly the deciduous teeth.

Some of the comments and suggestions were as follows: (1) More significance should be attached to the six-year molars, (2) More attention should be given to metabolism, (3) The curriculum should include more work on the relation of dental defects to public health, and (4) Special training should be offered in public health work.

6. Dental Health Needs from the Point of View of Physicians

The *third* project is to study the relations between dental and medical service, particularly as those relations are shown in dealing with cases. By letters of inquiry, interviews, etc., a form was developed on "The Relation between Medical and Dental Practice." It contained a list of types of diseases and conditions. Physicians were requested to check those types of conditions which they refer to dentists for treatment and those for which they call dentists in consultation.

The conditions ranked according to the number of times they were checked by the physicians are as follows:

- 1. Pyorrhea.
- 2. Apical abscesses.
- 3. Irregularities of the teeth and malocclusion.
- 4. Malformation of the palate or arches and other mouth deformities.
 - 5. Bleeding gums.
 - 6. Fractures of the bones of the mouth.
 - 7. Eye, ear, and nose conditions pointing to teeth.
 - 8. Malnutrition (Teeth as a factor).
 - 9. Neuralgias.

- 10. Disturbances in connection with difficult dentition.
- 11. Arthritis.
- 12. Infections of the membranes of the mouth.
- 13. Myalgias.
- 14. Iritis.
- 15. Diseased conditions of the bones of the mouth.
- 16. Tumors in the mouth.
- 17. Cancer in the mouth.
- 18. Diseased conditions of the maxillary sinus.
- 19. Cervical adenitis with suppuration.
- 20. Syphilis.
- 21. Skin diseases involving sores in the mouth.

Not enough replies have yet been received to form a final judgment. However, they do seem to indicate that dentists should be well informed on the conditions named. Every one of these conditions comes to dentists either for treatment or for consultation. Apparently the physicians are of the opinion that the work of the dentist includes a great variety of oral health services.

The physicians were also requested to check from among a list of items, those which they regard as of special importance in training the dentist to cooperate with the physician. The items, ranked according to the number of times each was checked, are as follows:

- 1. Knowledge of the relation of oral sepsis to systemic disease.
- 2. Extraction of teeth.
- 3. Knowledge of the relation of general health to the health of oral tissues.
 - 4. Diagnosis of oral conditions.
 - 5. Aseptic technique.
 - 6. Radiographic technique and interpretation.
 - 7. Anesthesia.
- 8. Knowledge of the value of bacteriological and tissue examination of mouth pathology.
- 9. Knowledge of ultra-violet rays and radium in the treatment of oral conditions.

Other items added to the list by the physicians are (1) Recognition of oral and throat pathology and reference of such to the physicians for treatment, (2) Better knowledge of nerve and muscular disorders resulting from infections of abscessed teeth, (3) Knowledge of post-operative conditions which may arise, and (4) Surgery of the bones, especially for conditions due to accidents.

In addition to the questions indicated, the physicians were asked to state (1) What difficulties, if any, they experience in their efforts to secure cooperation from dentists; and (2) In what ways, if any, they find the recent graduate in dentistry deficient in meeting the dental health needs of the public. Many of these comments are interesting but time forbids mention of them here.

The efforts to canvass the opinions and secure facts from the three groups—laymen, public health officials, and physicians—represent one line of approach to the functional analysis which the survey is attempting. The three groups are outside groups, so far as dentistry is concerned; nevertheless, they are groups with which the dental practitioner has numerous relations. Upon his contacts with them depends to a very large degree the success of the service which he is trained to render. The opinions of these groups deserve careful consideration. However, the facts and opinions obtained from these sources by no means reveal a complete picture of dental health needs. They suggest the broad outlines, the general pattern, but they do not supply the details.

7. Dental Health Needs from the Point of View of the Dentists

To fill in the details of the picture it was found advisable to study carefully the dental health conditions with which the dentist is confronted. To carry out this step an inquiry from entitled "Conditions with Which the Dentist is Called Upon to Deal" is being used. It requests dentists to supply two lists: (1) Important diseases, disorders, and deficiencies in patients with which, as dentists, they are called upon to deal, independent of physicians, and (2) Important diseases, disorders, and deficiencies in patients with which, as dentists, they are called upon to deal, in cooperation with physicians.

This inquiry form was sent to 200 general dental practitioners, whose names and addresses had been supplied by 29 dental schools. The schools regarded these dentists as successful and progressive in practice. To date 47 of the forms which have been returned with the data given have been tabulated.

The list of conditions with which the dentists deal, more or less independent of physicians, now includes 140 different and distinct items, and the list of conditions with which dentists deal in cooperation with physicians contains 137 items. A number of the items in both lists are, of course, duplicates. These lists are not as yet complete. Additional reports are being received from dentists and additional forms are being sent out. It is planned to continue this line of investigation until no new conditions appear. An effort will then be made to determine the value of the items compiled. It will probably require a considerable amount of time to complete this part of the work.

8. THINGS THE DENTIST IS CALLED UPON TO DO

To obtain other details of the service for which dentists should be trained, a group of dentists is being asked to furnish lists of the following:

- (1) Things they do for patients, independent of physicians.
- (2) Things they do for patients, in cooperation with physicians.
- (3) Things they do for public health work.
- (4) Things they do for the improvement of dental service and the dental profession.

The data obtained in this way are also being classified and tabulated. These facts indicate certain aspects of dental service in which the survey is interested, such as dentistry in public health work and the improvement and elevation of the dental profession.

This part of the study is making satisfactory progress. To date 59 reports have been received from dentists. Others are being received from time to time. It is planned to send out 150 additional requests.

9. RESUME OF THE FUNCTIONAL STUDIES

This statement regarding the six projects so far undertaken may indicate the methods employed in obtaining the foundational, or basic, data from which the analyses of curriculum content will later be made. You will realize that this is merely the first phase in the investigation. No effort is being spared to lay the foundation on solid fact and enlightened opinion.

Attention should be directed to the fact that the point of view of the survey is not primarily to discover what the dentist is now actually doing; it is rather to determine what he *should* do. The Survey looks not merely to present practice; it rather anticipates a greatly improved ministration to dental health needs in the future.

No previous investigation relating to the dental curriculum used dental health needs as the starting point. The Survey, therefore, represents a new approach to the problem of curriculum construction in dental education. It is not an effort to appraise existing curriculums or to evolve a curriculum from curriculums now in operation.

10. Some Conditions of Dental Education

The Curriculum Survey Committee has requested certain information from the dental schools in order that the general conditions of dental education in the United States and Canada might be kept in mind. The information asked for relates to the objectives of the schools, enrollments, number of faculty members, summer sessions, libraries, residence of students, admission requirements, limitation of enrollment, and the dental curriculum. These studies of the conditions of dental education are made as a background of our study. They have no reference to a classification of the schools. In fact, the Committee presumes in *no* way, whatsoever, to pass judgment on the schools. No comparisons of methods, etc., of schools will be made.

The report on the "Objectives of Dental Education" presented by Dean O'Rouke, represents the beginning of an effort to state clearly what, in a general way, the dental schools should accomplish. This effort will be continued until definite and satisfactory conclusions have been reached.

Time does not permit a detailed statement of the statistics collected from the dental schools, but a few of the conditions revealed may be of interest. The total number of undergraduate students enrolled in the regular dental curriculum in the year 1930-1931 was 8357, and the number enrolled in the fall of 1931 was 8340, which was a decrease of 17. It is to be borne in mind that the two enrollment figures are not altogether comparable. In all probability a few additional students will be admitted during the year 1931-1932. The total enrollments in the various schools in the fall of 1931 ranged from 18 to 525, the average being 194. During the year 1930-1931 the total number of freshmen was 2385 and during the fall of 1931 it was 2360, which indicates practically no change in the freshman enrollment. During the year 1930-1931, undergraduate degrees in dentistry were conferred on 1915 students.

Table 1. Number of dental students enrolled in the dental schools of the United States and Canada, fall of 1931.

	United		
Type of student	States	Canada	Total
1. Undergraduate students:*			N Self
First year	2293	67	2360
Second year	1668	71	1739
Third year	1988	65	2053
Fourth year	2105	83	2188
		_	
Total	8054	286	8340
2. Graduate students	81	21 .	102
3. Postgraduate students	177	2	179
		_	-
Grand total	8312	309	8621

Advanced work is also being done in the dental schools. Eleven schools reported a total of 83 graduate students for the year 1930-1931, and 13 schools reported a total of 102 graduate students in the fall of

^{*}For schools with three-year curriculums the students are included with the enrollments of the first, the third, and the fourth years.

1931. The number of graduate students varies in the thirteen schools from one to 23. During the year 1930-1931, 24 graduate degrees were conferred for study in dentistry, as follows: Master of Science, 9; Master of Science in Dentistry, 8; Bachelor of Science in Dentistry, 6; Doctor of Dental Science, 1. Seventeen dental schools reported a total of 352 postgraduate students for the year 1930-1931.

In addition to the work indicated by the enrollment data above, the dental schools provide other courses, as follows:

1. Undergraduate summer courses in clinical dentistry	20	schools
2. Courses for training dental hygienists	14	schools
3. Extension courses	7	schools
4. Courses for training dental technicians	3	schools
5. Courses for training dental assistants	3	schools

The amount of previous training of the first-year students enrolled in the regular undergraduate curriculum of the dental schools in the fall of 1931 is illustrated by the following data:

One year of college	783	students	
Two years of college	944	students	
Three years of college	350	students	
Four years of college	257	students	
Graduate work in arts and sciences	24	students	
Total	2358	students	

Approximately seven per cent of these first-year students took their predental work in the dental schools in which they later enrolled for dental study, and 33 per cent received their predental training in the colleges of arts and sciences of the universities in which they later enrolled for dental study. Sixty per cent had their predental education in colleges and universities other than those in which they enrolled for the study of dentistry.

The 8340 undergraduate students enrolled in the regular dental curriculum in the fall of 1931 represented all the states of the United States and all the provinces of Canada, as well as some of the terri-

tories and outlying possessions of the United States, and a number of other countries. The residence of these students is shown in Table 2.

Table 2. Residence of undergraduate students enrolled in the dental schools of the United States and Canada, Fall of 1931.

	The state of the s			
I. Residents of the States of	of the United	State	ç.	
1. New York	1305	26	OCIVI OI DEINAL SCICICE,	0 20
2. Pennsylvania	773	20.	Kansas Florida	70
3. Illinois	727	20	District of Columbia	69
4. California	+ 510		Georgia	
5. New Jersey	507		Rhode Island	
6. Ohio	435		Arkansas	
7. Michigan	330		West Virginia	
8. Missouri	237		Oklahoma	
9. Minnesota	201		Utah	
10. Texas	180	35	Mississippi	40
11. Indiana	179	36	North Dakota	36
12. Iowa	172	37	Colorado	- 29
13. Massachusetts	2158		South Carolina	
14. Nebraska	145		South Dakota	
15. Connecticut	139		Maine	
16. Wisconsin	130	41	Montana	27
17. Washington	109	42	Idaho	17
18. Louisiana	102	43	Arizona	. 17
19. Tennessee	101	44	New Hampshire	15
20. Virginia	97	45.	Delaware	13
21. North Carolina	87	46.	New Mexico	10
22. Maryland	85	47.	Wyoming	10
23. Kentucky		48.	Vermont	9
24. Oregon	81	49.	Nevada	2
25. Alabama	71			
			Total	7847
II. Residents of the Province	es of Canada:			
1. Ontario				102
2. Ouebec				02
3. British Columbia				25
4. Saskatchewan				2=
o. Manitoba				21
6. Nova Scotia				11
7. Alberta				10
8. New Brunswick				,
9. Prince Edward Island				. 5
TotalIII. Residents of Territories	2001 (200		The last of the color of	. 331
III. Residents of Territories	and Outlying	Posse	ssions of the United States.	- 551
1. Ilawall				22
2. Porto Kico				0
3. Alaska				2
4. Canal Zone				1
Total				. 44
IV Residents of Newtonnal	and ma			
V. Residents of Other Coun	tries			. 113
	- 0.311			A SOLET
Grand Total				.8340

A number of dental schools now enroll all the students they can accommodate while others do not. The 43 schools report that they could accommodate a total of 12,418 students. The capacity of the schools ranges from 60 to 600 students. Twenty-six dental schools have set limits to their enrollments and five others limit the number they will enroll in the first year. Several schools state that they would set a limit if that were necessary. In the fall of 1931, 25 dental schools accepted all qualified applicants and 14 schools state that they refused admittance to some applicants, most of whom met the quantitative, but not the qualitative, standards.

During the summer of 1931, 11 dental schools maintained summer sessions with instruction in regularly organized classes. These sessions ranged from eight to twelve weeks in length and they enrolled 741 students. Several schools have organized their work on a quarter basis with the summer session as a regular quarter.

To date twelve dental schools have been visited. These visits have been made to secure an acquaintance with the conditions of dental education and to learn from officials and faculty members what prog essive practices are employed in the schools.

11. IN CONCLUSION

In conclusion it should be stated that the work reported is preliminary to the main task of the survey. It constitutes in part the foundation upon which our further study will rest.

May I briefly review the three important phases of the whole plan? The *first* phase is to obtain a clear and detailed view of the dental health needs to which dentistry must minister, as well as to secure certain additional information upon which the professional practice of dentistry must rest. This is now well under way. The *second* phase of the plan is to secure the cooperation of the teachers in the dental schools to assist in determining the content of the curriculum. Some of you will be drafted into the service as members of subcommittees. To accomplish this part of the survey we shall need your help. The *third* phase will be to arrange the content in a curriculum for the use of the dental faculties.

The Committee regards this undertaking as a cooperative enterprise. Many persons will be called upon for contributions, some of which may require a considerable amount of time and effort. We are of the opinion that dental education, in this project which is now well under way, has an opportunity to assume a position of leadership in professional education. Our effort will succeed as we have your cordial cooperation and wise counsel.

Submitted on behalf of the Committee,

L. E. BLAUCH, Executive Secretary.

III. REPORT ON THE OBJECTIVES OF DENTAL EDUCATION

1. Purpose of the Study of Objectives

Mr. President, Ladies and Gentlemen:

One of the important steps in scientifically devising a curriculum is to formulate clearly the purposes, or objectives, to be accomplished by the type of education for which the curriculum is to be prepared. In part these objectives depend on (1) the service to be rendered by the student after he has completed his course, (2) his welfare and happiness during his years of service and later years, (3) the position he will later occupy as a member of society, and (4) his intellectual capacity. After the objectives of a type of education have been agreed upon they become the goals to be achieved through the educational program, represented largely by the curriculum.

2. PRELIMINARY INVESTIGATION

Before attempting to formulate the objectives of dental education as they should be, the Curriculum Survey Committee decided to make a study of objectives as they are conceived by the schools at present. To secure preliminary statements of objectives a letter, which carried no leads or suggestions, was sent to the deans of all the dental schools in the United States and Canada, requesting them to state the objectives which they attempt to reach in the training of undergraduate students in dentistry. Twenty-three replies were received.

The twenty-three replies showed considerable variation. It proved possible to summarize them as follows:

- (a) The ultimate development of dentistry as a specialty of medicine. (1)
- (b) To train the student so that he may give safe and satisfactory service to his first patients. (5)
- (c) To teach dentistry from a background of broad medical training. (1)

- (d) To give students an opportunity to acquire sufficient knowledge of the medical sciences to meet problems confronting the profession. (1)
- (e) To assist in the development of analytic ability and judgment. (1)
- (f) To inspire with a high conception of the ethical, social and economic obligations of professional life. (4)
- (g) To aid in the development of powers of co-ordination. 1(4)
- (h) To instill a desire for further study and research. (5)
- (i) To teach efficient business methods. (3)
- (j) To select, train and educate students in the highest type of health service. (1)
- (k) To prepare students so that they may meet the needs of average dental practice. (1)
- 3. THE QUESTIONNAIRE ON OBJECTIVES OF DENTAL EDUCATION

From such statements as the foregoing, a questionnaire, known as Schedule 4, was organized, as follows:

AMERICAN ASSOCIATION OF DENTAL SCHOOLS

SURVEY OF THE DENTAL CURRICULUM
311 EAST CHICAGO AVENUE, CHICAGO, ILLINOIS

SCHEDULE 4.	DBJECTIVES OF	DENTAL EDUCATION
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Name of Institution	Date
appearant secretary statements	
Person filling out the schedule	(Name and Position)

Please indicate which of the following objectives your school attempts to reach in the training of its undergraduate students. Place numbers in parentheses as follows:

- (1) To indicate that this is a major objective(2) To indicate that this is a minor objective
- (3) To indicate that this is not one of your objectives.
- () 1. To develop students with a broad background in the basis sciences.
- () 2. To train students so that they may give safe and satisfactory service at the beginning of private practice.

- () 3. To develop in students a high degree of skill in restorative and replacement technique.
- () 4. To develop ability in the prevention and treatment of pathological conditions included in the field of dentistry.
- () 5. To train students to understand the relationship of the dental condition of the patient to his general health.
- () 6. To train students in the recognition of oral manifestations of systemic disease.
- () 7. To prepare students in order that they may intelligently cooperate with physicians.
- 8. To train students so that after graduation they will have a scientific attitude toward all of their professional problems.
- () 9. To develop the student so that he may carry on research and contribute to dental knowledge.
- () 10. To create in the student initiative for individual study after graduation.
- () 11. To stimulate a desire for graduate or postgraduate work.
- () 12. To train students to express clearly their ideas in spoken and written English.
- () 13. To train students in the principles of practice management.
- () 14. To train students to pass licensing examinations.
- () 15. To develop in students ideals of dentistry as an altruistic social service.
- () 16. To contribute toward the development of good character and citizenship.
- () 17. To serve as a center of influence for the improvement of dental service.

Under each of the items the following statements appeared: "Please state briefly methods used in your attempt to reach this objective. Your comment on this objective will also be appreciated." Space was provided under each item for the statements and comments.

The questionnaire was sent to all the deans of the dental schools in the United States and Canada—38 of the former and five of the latter. Thirty replies have been received to date. Most of the replies were made by the deans, though in several instances others connected with the dental schools filled out the schedule. In several cases the deans stated that they called conferences of their faculty members to discuss the schedule. There is reason to believe that the schedule has stimulated some useful thinking on an important problem in dental education.

4. TABULATION OF REPLIES TO THE QUESTIONNAIRE

The tabulation of the thirty replies received is as follows:

	No. stating that this is			
Item	A Major Objective	A Minor Objective	Not An Objective	No. Not Replying
To develop students with a broad background in the basic sciences To train students in order that they may give	26	2	1	1
safe and satisfactory service at the beginning of private practice	29		18	1
skill in restorative and replacement techniques 4. To develop ability in the prevention and treatment of pathological conditions includ-	25	3	1	1
ed in the field of dentistry	25	4	100	1
to his general health	25	4	-	1
manifestations of systemic disease	22	7		1
intelligently cooperate with physicians	18	10		2
all of their professional problems 9. To develop the student so that he may carry	22	6	1	1
on research and contribute to dental knowledge 10. To create in students initiative for individual	4	22	2	2
study after graduation	14	11	3	2
postgraduate work	7	19	2	2
ideas in spoken and written English	4	18	6	2
14. To train students to pass licensing examinations 15. To develop in students ideals of dentistry as	12 5	14 6	1 19	2
an altruistic social service	15	12		3
good character and citizenship	21	6	1	2
provement of dental service	20	6	2	2

Final conclusions cannot be drawn from the table. Nevertheless, the data may be summarized as follows:

- (1) It would appear that there is but little difference of opinion among the dental schools in items 1, 2, 3, 4, 5, 6, 8, 16, and 17 as major objectives. Each is regarded by twenty or more schools as a point of major concern. Item number 7 is rated as a major objective by eighteen schools.
- (2) Three items (10, 13, and 15) are given major and minor positions to approximately an equal extent. These items deal with initiative for individual study after graduation, training in the principles of practice management, and the development of ideals of dentistry as an altruistic social service.
- (3) Three items (9, 11, and 12) are regarded by a majority of the schools as minor objectives. They relate to developing ability to carry on research, stimulating a desire for graduate or postgraduate work, and training in spoken and written English.
- (4) Eleven items are regarded by one or more schools as not among their objectives. The item which, on the basis of frequency, is the most conspicuous in this group is the one relating to training to pass licensing examinations. Six schools do not regard training in spoken and written English as one of their objectives.
 - 5. Statements of Methods Used to Reach the Objectives

Many of the replies followed the suggestion of stating the methods used by the dental school to reach the several objectives. Some replies stated the methods for attaining some of the objectives but omitted them for other objectives. The statements regarding the methods used are as follows:

- (1) To develop students with a broad background in the basic sciences.
 - (a) Encourage two years of predental study. (2)
 - (b) Recommend regular two-year premedical courses. (3)
 - (c) Careful study of the scholastic predental records. (1)
 - (d) By having teachers in basic sciences also graduates in dentistry. (2)
 - (e) By correlation of the basic and dental subjects. (4)

- (f) Carefully planned and well taught courses. (2)
- (g) Supervision over teaching methods.
- (2) To train students in order that they may give safe and satisfactory service at the beginning of private practice.
 - (a) "Ample clinical experience in oral diagnosis and restorative dentistry preceded by basic science training."
 - (b) "By thorough training in technics, clinical practice and oral diagnosis."
 - (c) "Continued and constant manipulative training commencing at the beginning of the freshman year."
 - (d) "Adequately balanced instruction in theory and large opportunity for clinical and laboratory practice."
 - (e) "By giving the students a minimum requirement in the practical application of dentistry on the patient."
 - (f) "By training acquired in the infirmary and hospital."
 - (g) "By five one-half days or eight one-half days in the infirmary."
 - (h) "Clinical and pre-clinical courses, with emphasis on fundamental principles, rather than upon mere repetition of technique exercises."
 - (i) "Usual methods in laboratory and clinic."
 - (j) "By actual practice work on a sufficient number of patients in the infirmary."
 - (k) "Correlation of basic sciences, technic courses, and two years of clinical experience."
 - (1) "High requirements in clinical work."
 - (m) "By giving the greatest possible amount of practical training; not, however, at the expense of theoretical training."
 - (n) "By coordination of didactic, laboratory and clinical work, and employment of as good teachers as it is possible to secure."
 - (o) "Emphasis upon fundamental technical preparation followed by adequate clinical instruction."
 - (p) "Large clinical experience."

- (3) To develop in students a high degree of skill in restorative and replacement technique.
 - (a) "Our aim is not to develop extreme restorative skill at the expense of something that would interfere with the development of fundamental things essential to the performance of safe and satisfactory service. A high degree of restorative skill is encouraged when it does not constitute a distraction from fundamental development."
 - (b) "Our course in technique and coordination course at a later period and finally the emphasis of such courses by practical demonstration."
 - (c) "By properly designed laboratory technical courses in which are stressed the basic principles underlying all replacement and restorative technique."
 - (d) "Preparation of technic pieces similar to operations in the human mouth." (3)
 - (e) "Comprehensive and exacting requirements in technical and infirmary requirements." (2)
 - (f) "Careful study of the student, and individual instruction wherever possible." (3)
 - (g) "Rigid requirements in clinical practice as well as in technical procedure."
 - (h) "By teaching a definite technique for each restoration with modifications when judgment indicates."
 - (i) "Experienced teachers, and a quality rather than a quantity requirement."
- (4) To develop ability in the prevention and treatment of pathological conditions included in the field of dentistry.
 - (a) "By a course in preventive dentistry including class, laboratory, and clinical work."
 - (b) "A course in oral medicine."
 - (c) "The regular courses in pathology and diagnosis and the use
 - (d) "Course in oral hygiene and orientation for the Freshman year to give students an early vision of preventive and bioof clinic and hospital."

logic aspects of dentistry." "Have felt that mechanical and restorative phases of dentistry have been stressed at the expense of the preventive phase during the first two years."

- (e) "Prevention is being taught in many courses; as a thread of importance running through all. Patient is viewed as a whole."
- (f) "It may be stated that we are attempting to change the common point of view that restorative work is mechanical rather than therapeutic or surgical, assuming of course, that surgical is also therapeutic." "We are attempting to teach the student from the beginning to the end of the curriculum, that the treatment of restorative dentistry as a mechanical art rather than a therapeutic one, constitutes a distraction which makes inefficient any attempts to cooperate with physicians, to understand the relationships of dental conditions to general health, etc."
- (g) "The school considers this one of its major objectives. Courses in Oral Hygiene, Nutrition, Bacteriology and Pathology stress prevention, and clinical courses in Operative, Prosthetic and Surgical Dentistry contain definite recognition of preventive measures."
- (5) To train students to understand the relationship of the dental condition of the patient to his general health.
 - (a) "Lectures in physical diagnosis." (2)
 - (b) "By instruction in clinic and hospital; students required to write up case histories."
 - (c) "Directly through Physical Diagnosis, Dental Medicine and Therapeutics. Indirectly we attempt to teach it at every opportunity in the various courses."
 - (d) "By affiliation with Medical Department and direct contact with cases."
 - (e) "By emphasis on the patient as a unit."
 - (f) "By practical demonstrations before small groups of junior and senior students."
 - (g) "At the bedside diagnosis in the hospital, the mouth is ex-

- amined, the history taken, symptoms tabulated, and in diagnosis, condition of mouth is considered in order to determine possible dental relationships."
- (h) "Practical application of pre-clinical courses to the work of clinical diagnosis laboratory."
- (i) "Lectures in Principles of Medicine; Diseases of Metabolism. Clinical work in dental pathology."
- (j) "Emphasized in all lectures and instruction wherever appropriate. By relating the biologic factors of the case to the technical and reparative procedures."
- (k) "By means of a Chemico-Pathological Laboratory with efficient teachers, who have both dental and medical degrees."
- (1) "Lectures in Oral and Physical Diagnosis by faculty members trained in both Medicine and Dentistry."
- (m) "In our Diagnostic, Medical, Dental, Operative and Surgical clinics, and in a lecture course in clinical medicine, an effort is made to correlate general and dental conditions. This is particularly done in the Oral Diagnostic clinic, which receives, by reference, many patients from the Out-Patient Department of our University Hospital."
- (6) To train students in the recognition of oral manifestations of systemic disease.
 - (a) "Work in the wards of a hospital under a teacher of Physical Diagnosis." (5)
 - (b) "Through cooperation between oral pathologists, physicians and dental members of the staff."
 - (c) "Training in the dental clinic diagnosis laboratory."
- (7) To prepare students in order that they may intelligently cooperate with physicians.
 - (a) "By attempts to correlate general and oral pathology."
 - (b) "By contact with physicians at school and hospital." (2)
 - (c) "By close affiliation with a medical school."
 - (d) "By a system in which the dental symptoms are stressed by references from a medical clinic."

- (e) "By course in Physical Diagnosis and Principles of Medicine; by having physicians on the staff."
- (f) "In the Principles of Physical Diagnosis which is conducted by a physician with sympathetic understanding of dental problems."
- (g) "Medical and Dental students have the first two years of basic medical training together. Additional training at a hospital."
- (h) "Hospital training."
- (i) "By working with physicians in diagnosing cases in the examination room of the dental clinic. Patients who want dental service for health reasons have a general physical examination by the consulting physician assisted by dental students."
- (8) To train students so that after graduation they will have a scientific attitude toward all of their professional problems.
 - (a) "By developing as fully as possible the scientific attitude while in college."
 - (b) "By requiring student papers, and stimulating the use of the library."
 - (c) "By advice and suggestion."
 - (d) "By developing a broad background in the basic sciences. By teaching methods and by developing in the student an inquiring attitude."
 - (e) "An earnest, all-round training must necessarily develop such an attitude in proportion to the intelligence of the student."
 - (f) "Correlation of scientific and clinical subjects." (2)
 - (g) "No courses taught empirically. A complete understanding of the why and wherefore of each operation is demanded by the teacher."
 - (h) "Basic sciences constantly referred to by teachers in all subjects."
 - (i) "By attempting to show the relation between cause and effect."

- (j) "By inculcating an analytical attitude and pointing out the relationship of the dental to the basic sciences."
- (9) To develop the student so that he may carry on research and contribute to dental knowledge.
 - (a) "Assignment of outside or collateral reading." (5)
 - (b) "By the requirement of thesis preparation and the exemplary incentive afforded by a department of research."
 - (c) "By thesis requirement in every year."
 - (d) "Encouragement by suggestion."
 - (e) "By making the science work for admission and the fundamental science work in the undergraduate curriculum of such a character that graduate work may be built upon it."
 - (f) "We encourage those who seem to display interest and ability."
 - (g) "By seminar course."
 - (h) "Offering elective courses to those properly qualified."
 - (i) "Those who have interest or capacity may undertake simple problems in Bacteriology and Physiology."
 - (10) To create in students initiative for individual study after graduation.
 - (a) "By theme subjects (chosen or appointed) with library use."
 - (b) "By stimulating the use of library." (6)
 - (c) "Faculty advsors, conference courses and written thesis based on individual work."
 - (d) "Where such an attitude is manifest it is encouraged."
 - (e) "We aim to have students realize that they are in an atmosphere of inquiry where literature and scientific equipment are to be utilized for the improvement of the service they are attempting to render and to make additions to our present knowledge."
 - (f) "Various means are taken to force students to use the library. A minimum amount of reading is required of each student." (2)

- (g) "Wide reading required for thesis preparation and discouragement of the older type of lecture plan in favor of seminar, quiz, etc."
- (h) "By precept, example, and inspiration." (3)
- (i) "In addition to such measures as the use of reference work, involving the consultation or original sources of knowledge in our library and elsewhere, the motive of our instruction is to inculcate the idea that knowledge is constantly growing and must be supplemented by continuous study and reading."
- (11) To stimulate a desire for graduate or postgraduate work.
 - (a) "By creating in the mind of the student the importance of his field and the limitation of the knowledge in an undergraduate course."
 - (b) "Merely by suggestion of the importance of continuing the study of dentistry."
 - (c) "By offering to qualified students opportunity to elect special courses by double registration (dentistry and graduate school) whereby up to one-third credit may be earned toward a graduate degree."
 - (d) "This is only an incidental objective of our school."
- (12) To train students to express clearly their ideas in spoken and written English.
 - (a) "By theme requirements and reports." (5)
 - (b) "Seminar." (6)
 - (c) "Example and admonition." (4)
 - (d) "Course in English expression given in all years of the course."
 - (e) "No effort, except the correction of errors on test papers."
 - (f) "It is assumed that most of this work has been done in the college of arts." (8)
- (13) To train students in the principles of practice management.
 - (a) "No formal course, applications of all courses to practice shown by teachers."

- (b) "By practical means and by lectures in economics or practice management." (20)
- (c) "No effort expended." (6)
- (14) To train students to pass licensing examinations.
 - (a) "Dwelling upon Nos. 2, 3, 4, 5, 6 and giving as much dental clinic practice as possible; also practical examinations by a committee of three, in imitation of State Licensing examinations."
 - (b) "Our teaching and our own examinations."
 - (c) "Only when a Board of Examiners is known to have eccentric or peculiar views."
 - (d) "Practical dental education."
 - (e) "Only an incidental objective of our curriculum."
- (15) To develop in students ideals of dentistry as an altruistic social service.
 - (a) "By example." (8)
 - (b) "By didactic and practical instruction." (5)
 - (c) "The extending of altruistic social service to charitable institutions."
 - (d) "In the course on ethics." (7)
 - (e) "Through observation and actual contact with patients in clinic and hospital."
 - (f) "Assignments to public health centers, school and hospital clinics." (2)
- (16) To contribute toward the development of good character and citizenship.
 - (a) "Precept and example." (9)
 - (b) "Course in ethics." (6)
 - (c) "Discipline." (2)
 - (d) "Encouragement of participation in church and community life."
 - (e) "The use of student counsellors."

- (f) "Contact with highest type social activities and opportunity to participate in campus religious organizations."
- (g) "Emphasized at faculty and student meetings. Lectures and in the entire set-up."
- (h) "The development of good character and citizenship, so far as a professional course may influence such matters, should be an objective of all dental schools. High standards of professional character of the teachers and a suitable inculcation of precept in other teachings, good standards of deportment and of discipline in the student body, are the influences which we believe serve in our school toward the attainment of this objective."
- (17) To serve as a center of influence for the improvement of dental service.
 - (a) "Constant contact with the profession." (9)
 - (b) "Postgraduate courses." (4)
 - (c) "Through research, and faculty participation in dental and alumni meetings" (3)
 - (d) "By example." (2)
 - (e) "By faculty participation in professional and civic affairs."
 - (f) "By employing teachers of prominence and ability."
 - (g) "Encouragement of graduates to keep in contact with the schools."

6. COMMENT ON THE OBJECTIVES

The suggestion in the questionnaire that comments be made on the various items elicited numerous statements, as follows:

- (1) To develop students with a broad background in the basic sciences.
 - (a) "Dental students should understand the whole body function."
 - (b) "Very important."
 - (c) "It seems evident that students who have pursued education

for the sake of education and have several years of college credit, prove to be the best students in dentistry."

- (d) "The value of this fundamental training of the practitioner for any portion of the healing art seems to require no comment."
- (2) To train students in order that they may give safe and satisfactory service at the beginning of private practice.
 - (a) "It would seem that this should be the result desired by all dental schools."
 - (b) "This objective, if it is one, should grant that there is no question but that the primary objective of any dental school should be to so train students."
 - (c) "Safety of service and intelligent judgment of treatment administered is the fundamental consideration. Students are urged to use conservative and well established methods, and, above all, to consider the effect of their services upon the health of the patient as a paramount impulse."
- (3) To develop in students a high degree of skill in restorative and replacement technique.
 - (a) "Most important."
 - (b) "It would seem to me that this is merely a part of the student's training and experience, and not an objective. To be sure he will be called upon to restore and replace, but they are merely by-products of the main objective."
 - (c) "We regard technical and restorative skill as instruments with which to accomplish therapeutic and surgical purposes."
 - (d) "The instruction and experience in restorative technique must qualify a student to meet an acceptable standard of performance. Individuals acquire a reasonably high degree of skill, but later experience in practice is always necessary for the attainment of the highest degree of skill. It is more important than an approved technique and the exposition of a high degree of skill, in efforts to stimulate after-development, should be attempted than the development of this high skill

during the college course. The time available for the latter is insufficient."

- (4) To develop ability in the prevention and treatment of pathological conditions included in the field of dentistry.
 - (a) "Here again it seems to me that we are splitting hairs. This (No. 4) is merely a branch or a part of the student's training in his attempt to reach the goal of an efficient dentist."
 - (b) "This is a major objective, but it is a part of No. 2." "We are attempting to change the common point of view that restorative work is mechanical rather than therapeutic or surgical; of course, assuming, that surgical is also therapeutic." "A lack of this point of view we regard as responsible for a large part of the pathology created by those engaged in the practice of dentistry who are skillful technicians."
 - (c) "This objective is one that should be developed to as high a degree as possible."
 - (d) "Most important."
 - (e) "No dental curriculum, which confines itself to remedial measures, could be justified today. Definite accent should be placed upon prevention and the fullest instruction in known principles delivered."
- (5) To train students to understand the relationship of dental conditions of the patient to his general health.
 - (a) "Any dental curriculum failing to include systematic consideration of this matter, does not meet present standards of scope."
- (6) To train students in the recognition of oral manifestations of systemic disease.
 - (a) "Oral manifestations of systemic diseases must be recognized in order to render safe and satisfactory services."
 - (7) No comment made.
- (8) To train students so that after graduation they will have a scientific attitude toward all of their professional problems.

- (a) "We believe this to be our greatest objective, and Nos. 1, 3 and 4 may be repeated."
- (b) "No science can be taught without this objective, and therefore this must constitute one of the major objectives in all our didactic and laboratory work."
- (c) "While this objective is of value, it is considerable of an order to expect graduates to have a scientific attitude toward all of their professional problems. It is a laudable ambition, and should find its place in a course of ethics and in courses where some generalization is possible."
- (d) "We believe that this is easier said than done."
- (9) To develop the student so that he may carry on research and contribute to dental knowledge.
 - (a) "The training of students to carry on research is not the function of an undergraduate school, but the stimulation of the spirit of investigation should be constantly in the mind of the teacher."
 - (b) "By giving him this broadening viewpoint, it inspires him to evaluate dentistry not purely from a technical standpoint, but from a truly scientific specialty of medicine."
 - (c) "The ability to do research may be stimulated and developed in a student, but not created."
 - (d) "Because a very small percentage of mankind has the natural qualifications necessary to carry on research, the field of this activity is limited. The school should provide some opportunity for individuals of the type above mentioned, to try their hand at research. To a reasonable percentage this opportunity appeals, but experience reveals that a very small number have the fundamental interest and capacity suitable for such work. A dental school should possess a policy of this kind for the purpose of exciting interest and offering a beginning opportunity for those who may be impelled in this direction."
- (10) To create in students initiative for individual study after graduation.

- (a) "The initiative can be traced back to a teacher who made some students enthusiastic about his special subject."
- (b) "Only those students who have personal initiative and a personal desire for further knowledge will continue studying after leaving school.
- (c) "All interested intelligent teaching tends to develop such an attitude in the better type students."
- (d) "Indeed, the possession of a spirit of inquiry on the part of the dentist is a requisite for safe and satisfactory service."
- (e) "This should be one of the major objectives of every dental school. To stimulate a student to seek knowledge and to equip him with a method by which he may acquire it, is conceived to be a fundamental purpose of our instruction. If a school is able to equip its students with a method for acquiring new knowledge, and endow them with a desire to seek it, one of the greatest purposes of dental education is accomplished."
- (11) To stimulate a desire for graduate or postgraduate work.
 - (a) "The majority of graduates cannot afford postgraduate work."
 - (b) "Both individual study, and the desire for graduate or postgraduate work seem to involve the same attitude on part of teachers if all work, whether it be technical or otherwise, be done in an atmosphere of inquiry."
- (12) No comment made.
- (13) To train students in the principles of practice management.
 - (a) "It is as essential to teach students office and business management as it is to instruct them in how to do good dentistry."
 - (b) "A certain amount of instruction in this subject possible, but it is more successfully taught as a postgraduate, or practitioner's course because its importance is more apparent to the young practitioner after a little experience, than it is to the student."
 - (c) "It is appreciated that this question deserves further study on our part."

- (14) To train students to pass licensing examinations.
 - (a) "In a general way a State Board examination is regarded by our faculty as merely an incident in the career of a graduate."
 - (b) "One which every properly trained graduate should be able to attain."
 - (c) "Any student properly trained in any good modern dental school is easily capable of passing any fair and unbiased examining board. No special training will be helpful in passing the other type of board."
 - (d) "To hold the passing of such examinations before the eyes of students as an objective, is to debase the art of teaching. We feel that the examinations of licensing boards are based on the knowledge the average student has gained in the average dental school, and the problem of instructing dental students to pass licensure examinations should be neither a major nor a minor objective of any dental faculty."
 - (e) "Students satisfactorily completing our course should be capable of passing licensing examinations. We have each year numerous failures before State Boards, but an investigation, extending over a number of years, convinces us that this is due more particularly to the inexperience and lack of knowledge of dental examiners. We most emphatically do not train our students specifically to pass licensing examinations by such coaching methods as are employed in some institutions, whose sole objective in their educational work seems to be the securing of a low percentage of failures in State Board examinations."
- (15) To develop in students ideals of dentistry as an altruistic social service.
 - (a) "The ideal of any profession is essentially altruistic in that it implies service rather than personal gain." "In this, dentistry is not an exception."
 - (b) "It is our belief that if a man is born with the milk of human kindness, he will regard any occupation as an altruistic social service. If not, his teachers cannot supply him with it, but yet he may be usefully influenced by faculty example."

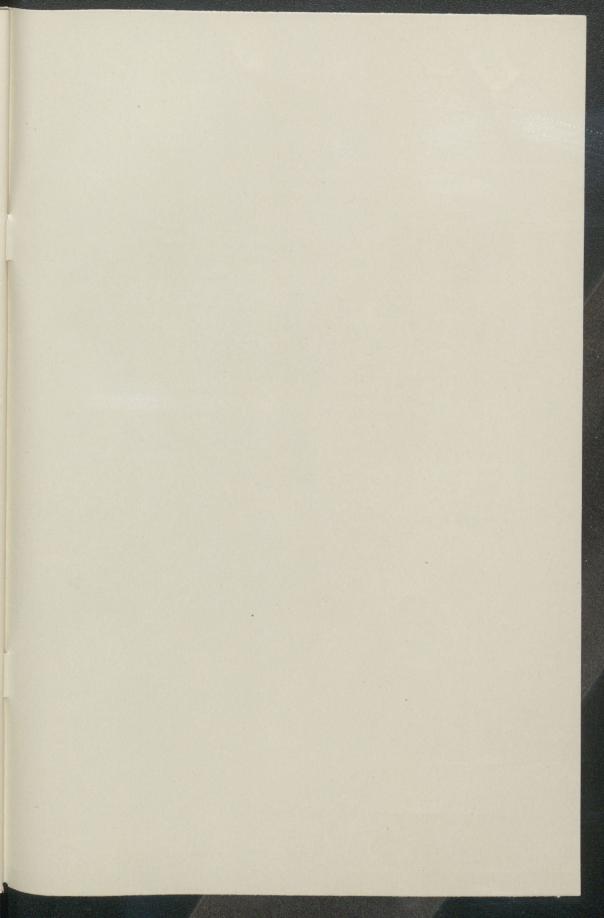
- (c) "This attitude is so largely individual that we feel any efforts to develop it in the mind of the student would be vain. The example of altruistic professors and the profession as a whole doesn't seem to stimulate much development in that direction."
- (d) "The practice of dentistry as a means of livelihood is the purpose of a very high proportion of all graduates. The manner in which this is done, from a standpoint of altruism involved, is a matter of personal character of the individual. High ethical standards include a proper amount of altruism."
- (16) To contribute toward the development of good character and citizenship.
 - (a) "A function of the high school and predental course."
 - (b) "I am quite convinced that the personality of the men with whom the students come in contact, as professors and instructors, the standing which these men have in the community and the integrity which stamps their success in dental practice, all have a very great interest in developing character and citizenship in the student."
 - (c) "Any professional school failing to take cognizance of this is a derelict in its duty toward students."
 - (d) "This is a major objective with us. Before one can be a good dentist he must be a good man."
 - (e) "Good character should be a prerequisite for admission to a professional school. No diploma is awarded from our institution to one who is not believed to be of good moral character."
- (17) To serve as a center of influence for the improvement of dental service.
 - (a) "While this is a desirable objective, it does not appear that it is possible to promote its achievement, except by the successful accomplishment of the previously mentioned major objectives of our school."

7. CONCLUSION

In conclusion it should be stated again that this progress report on the objectives of dental education is merely an effort to lay the basis for a formulation of what those objectives should be. Caution must be used in interpreting the data set down in this report. Inasmuch as the schedules contained no definitions of terms it is altogether probable that different persons replying understood some of the items differently. Criticism may easily be made of the items included in the schedule. There may be some overlapping in the statements. A few items might possibly be regarded as statements of detail rather than important objectives. Furthermore, since no definition of the terms "major objective" and "minor objective" were given, it is possible that these terms were not construed in exactly the same way by the different officials replying for the dental schools. Nevertheless, as a means of stimulating thought on an important problem, and as a foundation for further work, it is believed that this preliminary study has served a useful purpose.

Submitted on behalf of the Committee,

J. T. O'ROURKE, Secretary-Treasurer.



Survey of the Dental Curriculum

By WALLACE SECCOMBE

An Effort to Devise a Curriculum for the Training of Dentists

HE purpose of this paper is to describe the effort of the American Association of Dental Schools to devise a new curriculum for the education of dentists. In order that the problem of the Survey may be clearly stated, a few salient facts from the history of dental education

will be presented.

The first attempt in North America to give formal instruction in dentistry occurred at the University of Maryland in 1837-38. It consisted of a course of lectures for medical students and was conducted by one of the foremost dentists of the day. After one year this instruction was discontinued. Following other unsuccessful endeavors to include dental education in medical schools a group of four doctors of medicine, two of whom were also dentists, opened the first school of dentistry in America, the Baltimore College of Dental Surgery, in 1840. A few other schools of dentistry were organized later, and by 1867 nine, all of which were independent of other institutions of higher education, had been established. In 1867 the Dental Department of Harvard University was organized in close association with the Medical Department. It was the first time in this country for dentistry to be given an important place in a university and brought into formal relation with medicine.

The number of dental schools in the United States increased slowly until about 1880, after which for a period of about twenty years the number was multiplied beyond the actual need. The financial rewards to be had from a privately owned dental school account in large measure for this unnecessary development. Some of the schools were mere diploma mills, and others gave a low grade of training. Beginning about 1900, when there were 57 dental schools in the United States, the situation changed. Slowly the number has decreased until at present only 38 remain.

The first dental school in Canada, which has continued to the present, was founded at Toronto in 1875 under the auspices of the Royal College of Dental Surgeons of Ontario. It became an organic part of the University of Toronto in 1925. Four other dental schools, all of which are integral parts of universities, have been established at Dalhousie, Montreal,

McGill, and Alberta.

During the past fifty years several associations were formed for the purpose of advancing dental education.

Three of these organizations were in existence in the United States by 1920, and there was one in Canada. These disunited efforts fell short of meeting the need, and consequently a movement developed which resulted in the union of the four organizations in 1923 to form the American Association of Dental Schools. Its membership embraces all the dental schools in both countries, thirty-eight in the United States and five in Canada.

Another organization which has promoted dental education is the Dental Educational Council of America, established in 1909. Its concern has been primarily with higher standards of dental education and the improvement of the dental curriculum. The Council since 1918 has on several occasions classified the dental schools of the United States.

The charter of the Baltimore College of Dental Surgery specified that there should be at least one annual term of instruction of not less than four months in length. The first curriculum consisted of anatomy, pathology, physiology, therapeutics, clinical dentistry, and the related principles of surgery. The dental curriculum has since that time developed along the broad lines suggested in the first school.

The dental curriculum before 1885 usually extended through two terms ranging in length from three to five months—a total of about sixteen weeks. The National Association of Dental Faculties voted in 1884 to require all candidates for the degree of Doctor of Dental Surgery to attend a dental school two full regular terms of not less than five months, each in separate

calendar years. A curriculum which sought to embody the ideas mentioned was recommended. Six years later (1891) the Association recommended a three-year curriculum, but a majority of the schools rejected the recommendation. The Association in 1899 approved a new three-year dental curriculum which served as a general model until 1916 when it was extended to four years. The four-year course of study in dentistry became the standard required in 1917–18 by the Dental Educational Council of America for a Class-A rating.

TN THE meantime the requirements for admission to the study of dentistry were increased. No general academic standards affecting admission to dental schools were in effect before 1884, and practically all students were accepted without special regard for their previous education. The National Association of Dental Faculties in 1884 required applicants for admission to a dental school to pass a preliminary examination which included "a good English education." An applicant who presented a diploma from a reputable school, or other evidences of literary qualifications, was admissible without examination. In 1897, after years of discussion, the minimum entrance requirement was set at the equivalent of that for admission to a high school. This was followed by the completion of one (1898), two (1902), and three (1907) years of high-school study, graduation from a high school (1910), and graduation from a four-year high school (1917). Eventually a number of schools required one year of academic

work in college and others two years. Beginning with 1926–27 the Dental Educational Council made one year of college work an entrance prerequisite to Class-A dental schools.

The Carnegie Foundation for the Advancement of Teaching in 1921 undertook an extensive investigation of dental education in the United States and Canada. This survey, which was made by William J. Gies, included all the main features of dental education. The comprehensive report, issued in 1926, criticized the dental curriculum and recommended the adoption of a requirement of at least two years of suitable preprofessional college work, three years of education in dentistry for the training of the general practitioner, and one year of optional graduate training for specialists. This recommendation was based on general considerations. The survey made no detailed analysis of curriculum content.

THESE developments have resulted in a variety of curriculum plans. At present one group of dental schools has three-year curriculums based on two years of preprofessional education in college, the schools in another group have four-year curriculums based on one year of work in college, and those of a third group have four-year curriculums based on two years of work in college.

The confused situation produced among dental educators a general feeling of need for a systematic study and analysis of the dental curriculum. This feeling is reflected in the choice of subjects and speakers at the annual meetings of the American Association

of Dental Schools during the past ten years. In 1924 William J. Gies discussed some of the problems of dental education and referred to the curriculum as a problem of major importance. This statement elicited from Chancellor Capen, of the University of Buffalo, the suggestion that the entire subject, including the preprofessional preparation, should be attacked in detail to determine what should be taught to train a dentist.

During the next few years, the curriculum was a subject of frequent discussion by the Association. An educational psychologist, Austin G. Schmidt, of Loyola University, spoke two years later on the principles of curriculum construction, and his paper was favorably received. This discussion was followed with a paper given by Arthur H. Nobbs, of the University of California, who discussed the need for a "job analysis" of dental teaching, as a basis for a standard curriculum, and Dean John T. O'Rourke, of the University of Louisville, read an illuminating paper on training dental faculties in pedagogy.

The ground having been prepared, the American Association of Dental Schools in 1929 heard a discussion by W. W. Charters, of Ohio State University, on the importance of research in curriculum construction. He presented the idea of an activity analysis as the proper approach, stating that the first thing in developing a sound curriculum is to "discover the activities and problems of the profession and describe these with great definiteness." This address struck a responsive chord and led to the appointment of

a committee "to consider the feasibility of a survey of the dental curricula."

The Committee made representations to the Carnegie Corporation for a grant to assist in making a curriculum survey. The Corporation thereupon appropriated the sum of \$20,000 to the American Association of Dental Schools for the support of the project and authorized payments upon receipt of satisfactory plans. This action of the Corporation was greeted with much enthusiasm by the Association, which indicated a wide general interest in the undertaking. The Association in 1930 appointed a committee of five deans of dental schools1 to prepare a plan and carry it out.

THE plan developed by the Committee included the choice of educational advisers to aid in its work. Floyd W. Reeves, of the University of Chicago, and W. W. Charters were chosen, and other educators will be called into conference as special needs may arise. The next step was to find an educationist who was experienced in survey work and other forms of educational investigation to serve as executive secretary and devote his whole time to the Survey of the Dental Curriculum. To fill this important position L. E. Blauch was selected.²

The first undertaking of the Survey is concerned with the under-

² The office of the executive secretary is located in the Northwestern University Dental School, Chicago, Illinois. graduate curriculum for training the general practitioner of dentistry. The plan adopted for this part of the investigation includes several phases. The first phase is to determine the dental-health needs of the public. This is being done by collecting data from laymen, public-health officials, physicians, and dentists, each group contributing its views of dental-health service. The dentists are furnishing lists of the diseases, disorders, and deficiencies with which they have to deal, and lists of things they are called upon to do. Dental-health needs as reported in books and periodicals are also being studied. In these ways the surveyors are proceeding to find out for what services the dental practitioner should be trained.

The next phase of the plan is to determine the knowledge and skill which should be mastered by the student as a basis of rendering adequate dental-health service. This will be done by careful detailed analyses made by experts in the various subjects. First, the content of the clinical courses, such as operative dentistry, prosthetic dentistry, oral surgery, and orthodontia, will be determined on the basis of the services which the dentist should be trained to render. This content, together with additional material necessary to develop logical and coherent units, will then be organized in courses for teaching purposes. The supporting and prerequisite knowledge which the preclinical subjects should supply as a basis for the clinical courses will then be deter-

¹ As finally constituted the Committee consists of the following: Wallace Seccombe, University of Toronto, chairman; John T. O'Rourke, University of Louisville, secretary-treasurer; Arthur D. Black, Northwestern University; H. Edmund Friesell, University of Pittsburgh; Harry M. Semans, Ohio State University.

⁵ Progress reports on the Survey were made to the American Association of Dental Schools on March 23, 1932. These reports will be published in the Proceedings of the Association for 1932.

mined by detailed analyses. This content will also be organized in courses.

As a part of the Survey the courses will be arranged in a curriculum for the use of the dental faculties. In doing this, account will be taken of both the educational principles and the practical problems involved in the organization and administration of a curriculum. The Survey will embrace a study of the cultural components of the curriculum. This will include the preprofessional education of dental students.

It is also planned to consider graduate work in dentistry and other features of dental education closely related to the curriculum for training the general dental practitioner. A full investigation of these matters will depend on the securing of increased financial support.

Certain data are being collected from the dental schools in order that the conditions of dental education in the United States and Canada may

be kept in mind. The information asked for relates to the objectives of the schools, enrollments, number of faculty members, summer sessions, libraries, residence of students, admission requirements, limitation of enrollment, and the dental curriculum. The studies relating to the dental schools are made as a background for

the Survey.

The Committee has studiously avoided discussion of existing plans of dental education and dental relations. It is making every possible effort to conduct the Survey in a spirit of scientific research with a desire to learn all the pertinent facts. Whatever recommendations are made will be based on the facts disclosed during the study and will be reported to the American Association of Dental Schools, previous to their publication. The Committee is receiving the most cordial co-operation of the Carnegie Corporation and of all those concerned in this important undertaking. [Vol. III, No. 5]



AMERICAN ASSOCIATION OF DENTAL SCHOOLS

Committee:

WALLACE SECCOMBE, Chairman
Dean, Faculty of Dentistry
University of Toronto

JOHN T. O' ROURKE, Sec.-Treas.
Dean, School of Dentistry
University of Louisville
ARTHUR D. BLACK
Dean, Dental School
Northwestern University

H. EDMUND FRIESELL
Dean, School of Dentistry
University of Pittsburgh

HARRY M. SEMANS
Dean, College of Dentistry
Ohio State University

SURVEY OF THE DENTAL CURRICULUM

Office of the Executive Secretary
311 East Chicago Avenue
CHICAGO, ILLINOIS

July 7, 1932

Educational Advisers:

FLOYD W. REEVES
Professor of Education
The University of Chicago

W. W. CHARTERS
Director, Bureau of
Educational Research
Ohio State University

L. E. BLAUCH Executive Secretary

To Presidents of Colleges and Universities:

Gentlemen:

Thinking that you may be interested in the effort of the American Association of Dental Schools to devise a curriculum in dentistry, we are enclosing one copy of each of the following:

"Survey of the Dental Curriculum", by Dr. Wallace Seccombe

"Progress Reports of the Curriculum Survey Committee, March 23, 1932"

These papers explain the purposes and some of the plans and work of the Survey of the Dental Curriculum.

The Curriculum Survey Committee

ack

Copy for Sir Arthur October 5th, 1933. Dr.B.L. Hyama, President, Mount Royal Dental Society, 1440 Drummond Street, Montreal . RE MOUNT ROYAL DENTAL SOCIETY PRIZES Dear Sir:-I have pleasure in acknowledging the receipt through Dr.A.L. Walsh, Dean of the Faculty of Dentistry, of a cheque for \$100.00 to cover book prizes to be awarded to students in the lat, 2nd and 3rd years respectively. Will you kindly express to the members of your Society the sincere appreciation of the University for this generous action. Yours very truly, MAM WB/I Comptroller.

McGILL UNIVERSITY OFFICE OF THE DEAN . FACULTY OF DENTISTRY Montreal, MAY 26, 1931. Dear Doctor .-The Prosthetic Department of the McGill University Dental School is planning a Brushingup Course in Full Denture Construction. The Course will continue for ten days commencing July 13th. Practical cases will be allotted to each graduate, but if a member wishes to bring in his own case, he may do so. The fee will be \$25.00 which will include material. The attendance will be limited. Apllicants are requested to forward cheque (made payable to McGill University) when making reservations, and each member must have a Hanau Articulator. The Course will consist of discussion, edemonstrations, and supervision of practical cases. It is hpped that through the means of this Course the percentage of unsatisfied patients wearing Full Dentures will be considerably lessened. Yours very truly, arthur Lwalsh ALT/AF. Acting Dean.

GEORGE S. CAMERON, D. D. S. 400 BIRKS BLDG. MONTREAL August 7th.1929 Dr.AL. Walsh Dental Dept. McGill University Montreal. Dear Dr. Walsh: -In answer to your letter of a previous date I would like to report that I have had a conference with Dr. Dohan and formed the following plan for the Brush Up Course in the Hanau Technic for full Upper and Lower Dentures. 1st. Membership for McGill graduates only. 2nd. Each member to have a Hanau Articulator 3rd. Fee to be \$25.00, this to include the price of teeth, laboratory expense, reimbursements for help at the College and hospital. 4th. Hospital to supply patients, i.e. if member does not wish to supply his own. 5th. Models relating to this work to be ready for this course; referred to in previous letter. 6th. Any time as long as it is held this month, allowing ten days, for the holding of course. 7th. Required to have at least an attendance of six If this plan meets with your approval I could confer with you as to notices to be sent out which would give details as to proposed time table etc. Wish you would consult with Dr. Lowery as we wish him to give assistance with this work. Yours sincerely

DR. A. W. MECLELLAND DRUMMOND BUILDING MONTREAL May 28th, 1931. The Principal, McGill University, Montreal. My dear Sir; Enclosed please find copy of letter to Dr. A. L. Walsh, acting Dean of the Faculty of Dentistry. As you are Chairman of our Faculty meetings, I think it in order to furnish you with a copy of this communication. Very truly yours, McC/I.

June 2, 1931. Dr. A. W. McClelland. Drummond Building. Montreal . Dear Dr. McClelland. I have your letter of May 28th, and have carefully noted its contents. I have asked Dr. Walsh to give me the extracts from the Minutes of Meetings of the Faculty of Dentistry, to which you refer, and then, if agreeable to you, I should like very much to come to see you. Tomorrow I am going to Quebec. Wednesday is a holiday, and I am going back again to Quebec on Thursday, so that it may be early next week before I can get to you. Yours faithfully, Brincipal.

511 St. Catherine St. Mest Montreal

June 3rd, 1931.

General Sir Arthur Currie, McGill University, Montreal.

My dear Sir;

I thank you for your communication of June 1st, in reference to the matter of which I wrote to Dr. Walsh.

I know just how busy a man you are and I shall not put you to the trouble of coming to see me. If you will kindly advise my office when it is convenient for you to have me, I shall indeed be glad to call on you.

I am Sir.

Yours very sincerely,

accentileand,

June 3, 1931. DR. A. W. McClelland, 1117 St. Catherine St. West. Montreal. Pear Dr. McClelland .-Your letter of the 28th inst. re Brushingup Course in Prosthetic Dentistry has been received and contents carefully noted. This Course, as I understand, is nothing more than the present Fourth year course in full denture construction in material and has only been given during the past three years. It is, therefore, undergraduate. Should we not encourage our students to return to the School periodically to take advantage of the progress, that is quite evident, in this and other departments. The thirty graduates who took the Brushingup course in Dental Surgery a year ago seemed very appreciative. In this instance the material was exactly the same as that given to the present Final year, and the reason for announcing such a course was due to the fact that previous to 1927 this subject was not taught. As secretary of the Dental Faculty I have searched the minutes of the past five years and have been unable to find record of the motion mentioned in paragraph two of your letter. It is possible that I omitted to record such a motion, and if such was the case, it is unfortunate that it was not corrected at the reading of the minutes at the following meeting.

-2-DR.A.W.McClelland, cont'd My impression has been that the Faculty favoured this Brushing-up course in full denture construction, which has been under consideration for over a year. Yours faithfully, Secretary. LAW/AF.

SUSTETE 1005 - ST.W. 1414 DROWNEROND ST. 19th September 1931. Sir Arthur Currie, Principal McGill University, Montreal. Dear Sir Arthur: At a meeting of the Montreal Dental Club on 14tth September, the following resolution was pass-"Whereas the Principal in a letter dated 15th July, to the members of the McGill Graduates Society, has seen fit to laud the progress attained in the last ten years by nearly all faculties and departments thereof. And whereas no mention whatsoever is made in that letter, of the faculty of Dentistry. And whereas we think that the faculty of Dentistry can show a progress in teaching at least equal to that shown by any other faculty. And whereas we consider the omission of any mention of Dentisrty as being a reflection on the teaching ability of each man connected with that faculty at McGill." Be it therefore resolved that this lack of reference, to the Dental faculty, in the Principal's letter, and our feelings about the matter, be brought to his notice without delay. Respectfully yours, m. R. Donigan. SECETARY MONTREAL DENTAL CLUB MLD/LA

September 21, 1931. Miss M. L. Donigan, Secretary, Montreal Dental Club, Suite 1005, 1414 Drummond Street, Montreal. P. Q. Dear Madam, The Principal has asked me to acknowledge receipt of your letter of the 19th September, which sets forth the Resolution passed at a meeting of the Montreal Dental Club on the 14th September last. Yours faithfully, Secretary to the Principal.

BALTIMORE COLLEGE OF DENTAL SURGERY DENTAL SCHOOL UNIVERSITY OF MARYLAND OFFICE OF THE DEAN BALTIMORE, MD. March 2, 1931. Sir Arthur W. Currie, Princ., McGill University, Montreal, Canada. Dear Sir: In making a study of the technic courses offered in the schools composing the American Association of Dental Schools, we wish to include the time devoted by years to the various technic groups. In a study of your catalogue it is difficult to segregate the time devoted to the various courses. Will you please fill out the enclosed questionnaire and return to us? Thanking you for your interest in the matter, I am, Cordially yours, JBR:n

March Srd, 1931. Dean J. Ben. Robinson, Baltimore College of Deatal Surgery, University of Maryland, Baltimore, Maryland, Doar Sir. In the absence of the Principal, your letter of March 2nd has come into my hands. I have referred your questionnaire to Acting Dean Walsh of our Dental Faculty, and enclose herewith his answers to your questions. Yours faithfully, ows.

for Corporation Medical Arts Building Six arthur Cume Principal of hicfill University may 21-1930 Dear sir arthur. may I fresent my regrets for my in ability to attend the meeting of Confrations on monday hept. Jattach a note dealing with the circular letter sent out recently. If this statement as regards the Faculty of Dentisty is advanced as an argument from increase in fees it would be well to include the words under the arguments for each faculty including the faculty of mederice In my observations do not indicate that any faculty at migill is concerned with fure learning as detatched from ultimately earning a liwlihood.

Medical Arts Building Montreal its justification as a special application; to the faculty of wenterly. However, of course, this 5 ho reason for not unceasing dental fees along with those of other faculties Your truly. airgents

of Music Department In this Department, there are 235 students enrolled. This enrollment includes both part and class students. The fee is \$200. per year. Partial students may enroll for a term of 11 weeks at about \$50. Class students are accepted with a fee varying between \$5. and \$25. per term. In the event of degree examinations being taken, other fees are exacted. Probably the bulk of these students are taking class work, and paying a class fee. The Director of this Department will require to be consulted before any conclusion can be reached, especially in view of the recent concessions granted to the Conservatorium of Music in Montreal. Faculty of Applied Science In this Faculty, there are 340 students enrolled. The sessional fee is now \$205., and has remained at this sum since 1920. This fee was not raised three years ago concurrently with the fees in some of the other Faculties. The courses in this Faculty, comprising six Engineering courses, require 4 years of study. The course in Architecture requires 5 years. Any of the degrees in Engineering are predicated upon 6 months' experience in Practical Engineering work, and it may well be that this work may be unremunerative to the student. This applies also to the course in Architecture, but in that course the student must have put in 8 months' work with an Architect or Contractor, and if the examinations under the regulations of the R.I.B.A. are taken, twelve months' work is required. The Summer School in Surveying occupying four weeks' time is a requirement in all Engineering Courses in the first year work. Other Summer School Courses of from four weeks to two weeks apply in Engineering. It is not of practical moment to consider that these Summer Courses detract very much from a student's earning power during a summer vacation. His earning power in any outside work appertaining to engineering or construction work is, on the whole, greater than the work which might be undertaken by a student in Arts. It is recommended that this sessional fee be increased to \$275. Conclusion: The question might be raised as to the almost parity of the fees in Applied Science and Medicine, when the latter course is two years longer. The answer to this is that the cost to the University for instruction in Medicine is less per annum than in Applied Science, largely because of the greater number of full-time professors, and the greater amount of equipment involved in the latter Faculty. Departments of Pharmacy and Dentistry In these Departments, 60 students in all are enrolled, 22 and 38 respectively. Assuming that two courses are taken by a student, the course in Junior Practical Pharmacy and the course in Junior Chemistry and Physics, the total fee will be \$100. In the Department of Dentistry the sessional fee is \$210. In this Department also, the cost of instruments and material for first year students is at least \$150., and for second year students \$350., but it is fair to state that as these instruments are practically all that will be needed in an ordinary Dental practice, and as the University receives no profit from this source, these additional payments do not enter into the matter of fees. As both of these courses are entirely commercial in their outcome, they are, beyond all others, courses for which the University should receive full value. Conclusion: It is recommended that the Dentistry fee be increased to \$250. and the first year Pharmacy fee to \$125.

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February Twenty-third 1927.

Dr. J. A. Nicholson, Registrar, McGill University.

Dear Dr. Nicholson:

I have promised the Dental Faculty to add a representative to the Library Committee. The Faculty has nominated the Dean, Dr. Thornton, and will you please see that his name appears in the next Announcement, having Corporation regularize it at its next meeting.

Yours faithfully,

Principal

McGILL UNIVERSITY OFFICE OF THE DEAN FACULTY OF DENTISTRY Montreal, December 13th, 1926. Mrs. Chesley, Secretary, to the Principal. McGill University. Dear Mrs. Chesley:-As requested by Sir Arthur, you will find below the names of the teachers in the Faculty of Dentistry, who make use of the Dental Department in the Medical Building. The first five named are on the Faculty Executive. Dr. F. G. Henry, 444 Guy Street, Dr. G. S. Cameron, Birks Building, I4 Phillips Square. Dr. F.H.A.Baxter, 605 Drummond Bldg., Dr.A.W.McClelland, 606 Dr. J. S. Dohan, I27 Stanley Street.
Prof. A.B.J. Moore, Dept. of Pharmacy, Medical Bldg.
Mr. W. L. Bond, K.C., IIO St. Mark Street, Dr. J. W. Abraham, 5724 Sherbrooke St.W.,
Dr. F. A. Stevenson, I54 Metcalfe Street
Dr. G. Franklin, I2I Bishop Street,
Dr. W. C. Bushell, Medical Arts Bldg.,
Dr. I. K. Lowry, Dental Clinic, Montreal General Hospital. Dr. W. G. Leahy, I am. Yours faithfully a. L. Walsh. AW/EA

McGILL UNIVERSITY FACULTY OF DENTISTRY OFFICE OF THE DEAN Montreal September 28th, 1926. Sir Arthur W. Currie. Principal. . McGill University. Dear Sir Arthur:-At a meeting of the Dental Faculty held as per above date it was decided that the following recommendations be forwarded for your consideration. A. The erection of a skylight at the Dental Clinic of the Montreal General Hospital. This would tend to increase the efficiency of the operative work, as well as, lesson the strain on the operator's eyes, due to constant use of artificial light. B. The co-operation of the University in the matter of Library facilities as outlined in enclosed letter from the Montreal Dental Club. C. The replacing of the present lantern in the lecture room of the Dental Department by one of a modern type. Assuring you that the members of the Dental Faculty were unanimous in the above recommendations, and that your personal interest in our problems is much appreciated. I am. Yours faithfully. Secretary.

Inter-department Correspondence Dr. Francis Corm Graduate MCGILL UNIVERSITY July 6th, Sir Arthur Currie, Principal, McGill University. Dear Sir Arthur:-According to the enclosed letter, one of our graduates, Dr. Francis Corin (of questionable integrity) is engaged in legal proceedings with Dentist 4.C. McLeod. If the enclosed reply meets with your approval would you kindly ask your secretary to mail the same, returning the letter to this office. Yours very sincerely, archer I wals Acting Dean. ALW/F.

Dr. Francis Corin.



35, Harley Street, W.I. London. England.

General Sir Arthur Currie, Principal McGill University, Montreal. Quebec. Canada.

Dear Sir Arthur; -

Thank you for your recent letter and the information regarding the granting of the Doctor of Science Degree.

In connection with my book, at the moment I am revising the chapter on Periodontology after having spent sometime with Dr F.W.Broderick and I shall include his theory with my own findings regarding the matter of the acid alkali balance and its dependability upon the vegetative system as visualised by Krous-Zondek, in that Periodontoclasia is a definite entity and that the infection in this condition is second in importance aetiologically.

around four postulates, and I shall then leave the matter with the unprejudiced and open-minded members of my own profession to express their opinion whether the theory which I shall promulgate offer any solution to the many paradoxes which are at the moment associated with the Dentist "nightmare", viz "Pyrrhoea Alveolaris".

Last Thursday I received a letter from Dr Harold Keith Box, of Toronto and whom I understand is

associated with the General Research Council of Canada, extending a very urging invitation to come to Toronto and undertake some Research in his New Laboratory at Toronto University. Dr Box says;

"......In January of this year the University built me a new Research Laboratory in conjuction with an animal house on the same floor.........We have two rooms on the same floor arranged for Research Fellowships.Would you consider coming to Canada in September to carry out some Research in my laboratory?.At the same time you could acquaint yourself at first hand with my newer work and also become familiar with the Dunlop method of Periodontal treatment and its technique.I certainly would like to see you incorporate this method in your practice in London.I would be very glad to give you all the personal assistance in my power and feel very much like urging you to come".

On Friday I received a letter from the Dean at Toronto offering me a Fellowship in Research.

While I am naturally inclined towards Toronto, I am as you can imagine more inclined to my own University, and I am writing to ask, if in the event of my coming to Canada, I can undertake any work of this nature at McGill.

I was exceedingly to learn that the Dental Faculty of McGill was making good progress and I do sincerely hope that the time is not far distant when this Faculty

will follow medicine in giving to the world a second "Osler".

I can arrange to be away from my practice for one session.

Trusting you are enjoying the very best of health.

Yours sincerely.

Francia Carin

July 20, 1933. Dr. Francis Corin, 35 Harley Street, Wal, London, England. Dear Dr. Corin, Let me acknowledge your letter of the 9th of July. I note you have an opportunity of joining the staff of Toronto University under Dr Harold Keith Box. I am afraid that there is no position at McGill that we can offer you, nor can we provide laboratory facilities. Cordially reciprocating your good wishes, I am, Yours faithfully, Principal

PROM: Or. Francis Corin.



35, Harley Street, W.I. London. England.

Sir Arthur W Currie, G.C.M.G. K.C.B, 3I. 3. 33.

Principal McGill University.

Montreal. Canada.

Dear Sir Arthur Currie; -

No doubt this letter will be a great surprise to you, but, on the other hand, I am quite sure you will be very pleased to learn of the success of a graduate from McGill University.

As you can see I am in England and at Harley Street, London. I came to this country about five years ago and since my arrival here I have obtained the B.D.S. L.D.S and R.F.P.&.S degrees. I have been elected a Fellow The Royal Society of Medicine of England, A Fellow The International College Dental Surgeons; A Fellow The American Academy Periodontology; A Fellow The American Stomatological Association and a Member the Institute of Hygiene of England.

During the past five years I have devoted considerable time to research in Periodontal diseases and have now completed a book entitled, "Periodontal Diseases Their Diagnosis and Treatment. This work deals with the following subjects;-

Chapter I Introduction and Historical Outline.

Sir Arthur W Currie. continuation sheet -- 2

Chapter II The Supporting Tissues of the Teeth.

a. Gums.

b. Gingivae.

c. Alveolar Process.

d. Pericementum.

Chapter III Periodontal Diseases (Various types) Their Diagnosis and Treatment.

Chapter IV Traumatic Gingivitis.

Chapter V Catarrhal Gingivitis.

Chapter VI Gingivitis and Stomatitis.

Chapter VII Necrotic Gingivitis. (Trench Mouth).

Chapter VIII Periodontoclasia. (Pyorrhoea Alveolaris).

Chapter IX Surgical Treatment Periodontoclasia.

Chapter X Instrumentation.

Chapter XI Post-operative Treatment.

Chapter XII Instructions to Patients in care of Mouth.

Chapter XIII Duty of Patient in Care of Mouth.

Chapter XIV Dental Caries and Acute Alveolar Abscess.

Chapter XV Diet.

Chapter XVI Conclusions.

I am now writing to ask if I can have the honour of dedicating this work to McGill in appreciation of what I owe to the University, and at the same time if it can be considered by your Faculty of Graduate Studies and Research for the Doctor of Science Degree.

At the moment I have the manuscript of this work bound ready for my publishers. On hearing from you I shall be most

April 8, 1933. Dr. Francis Corin, 35 Harley Street, W.1., London, England. Dear Dr. Corin. I am this morning in receipt of your letter of March 31st, and am glad to learn that you are doing well, and that you have found time to complete a book. Before the University can give approval to t is book being dedicated to her, it would have to be reviewed by an outside authority, and therefore no consent can be given until we have had opportunity to examine the manuscript. Only after examination could the Faculty of Graduate Studies and Research consider your application for a Doctor of Science degree. At this time I am afraid I can hold out little hope of such a distinction being awarded you now. I do not suppose the Doctor of Science degree is awarded more than once in five years by our Faculty, and the candidate must possess very unusual merit to receive it. The Dentistry School is going along fairly well, a good class of students now appearing. We have every hope of an increased enrolment next year. For some years after

McGILL UNIVERSITY OFFICE OF THE DEAN FACULTY OF DENTISTRY Montreal, December 6th, 1926. Sir Arthur Currie. Principal,
McGill University. Dear Sir Arthur:-As requested in your letter of November 2nd, I have investigated the Mayo Brothers, Dental Scholarship, as brought to your attention by one of our recent graduates, Dr. Frank Corin. If Dr. Corin is really serious, in this matter, of post-graduate work, it would appear to me, from Dr. Wilson's letter, that his application is for a two years' service as a special student. Following this interneship, it would then be possible to qualify for a fellowship in Dental Surgery in the Mayo Foundation. I have had no direct communication from the Mayo Foundation, in reference to Dr. Corin's application. I understand from Dr. W. Seccombe, Dean of Toronto University, Dental School, that on several occasions he has recommended a graduate of high standing in that University to the Mayo Foundation, as special student giving two years service and for stipends of \$800 and \$900 for the first and second years resepctfully. Yours faithfully. arthur Lewalsh ALW/EA

PHONES: OFFICE 473 RES 282 R Dr. Frank Corin DENTAL SURGEON 208-9 Campbell Building Victoria, B. C. November 20th 196 General Sir Arthur Currie, Principal. McGill University, Montreal . Quebec . Dear Sir Arthur Currie:-Your much appreciated letter awaited my arrival and I hasten to thank you for having consented to send a recommendation to the Mayo Foundation upon their asking for the same. Yes I thought the Re-unions wonderful success but personally, I would have been much more pleased if the Dental Graduates took a little more interest in their old Alma Mater. To me it was an inspiration to go back and see the old Buildings again and I might tell you that in conversation with Dr Walsh during my visit to the Dental Clinic, I expressed a desire to give a prize to the best student in the graduating class for Prosthetic Dentistry. My Visits to Columbia University in New York, and Northwestern and Chicago Universities in Chicago and my having met some of the big men of our profession and my two weeks stay at the Dental Department at Mayo Brothers, har meant more to me than I can ever tell. I wish it were possible for every student in both Dentistry and Medicine to visit these places and learn of the wonderful things that are being done to

help humanity. At present I am doing some research work in connection with Foci infection with Dr Taylor and Dr Walker of this city and we have at our disposal the Pathological Department of the Jubilee Hospital. I am trying in a humble way to carry out some of the ideas I obtained at the Mayo Clinic. During my absence from the city Wilfred Gibson of this city took some pictures of my office and presented to me on my arrival and I am taking the liberty of sending you some copies. As requested I exted your regards to a number ofyour old friends in this city and they in turn asked me to extend their best wishes to you. Again thanking you for all that you have done for me. Yours very sincerely. FC/BJ

November 20, 1926. Dr. Frank Corin, 205-9 Cambell Building, Victoria, B.A. Dear Dr. Corin:-This will acknowledge the receipt of your letter of recent date and also the receipt of photographs of your dental parlor. I congratulate you on the appearance of the rooms and the evident completeness of the equipment. I note the McGill diploma is displayed in a conspicuous place on the wall. Let me wish you all possible success in your profession. Yours faithfully, Principal.

November 2nd, 1926. Dr. A. L. Walsh. Faculty of Dentistry, McGill University. Dear Dr. Walsh:-I have been much interested in a letter from Dr. Frank Corin, Dentistry *25. who tells me that he is applying for a Mayo Brothers Scholarship of the value of \$900.00 a year, tenable for two years. He tells me that this scholarship has been held three times by graduates of the University of Toronto, but that up to the present no McGill man has applied. I think it would be well for you to find out the exact terms under which these scholarships are granted. Yours faithfully, Principal.

November 1st. 1926. Dr. Frank Corin, 205-9 Campbell Building, Victoria, B. C. Dear Dr. Corin :-I was much interested in receiving your letter of October 27th. I take from it the meaning that you wish me to write you at Victoria to give my consent, or otherwise, on the application which you intend submitting to the Mayo Brothers for a scholarship. I hasten to assure you that I shall be very glad to endorse your application and to give Mayo Brothers a recommendation when they ask me for it. I am very glad you were able to get to the Reunion. I thought it was a fine success. Please remember me to Dr. John and to any other friends of mine in Victoria. I congratulate you on your efforts to prepare yourself the better for the practice of your profession. Yours faithfully, Principal.



HOTEL TUMBRO

ben die arthur Curie. Principal.

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Dentis arthur Curie: -line allending the melsell Re- union and feranny past graduate at new fack and cheerge I am now taking anne spried work under Ord Bagd tomaner at mys Benthers in Wenhal Lurgery, and Laning expressed my desine bor Carder to become a specentist in Dunhal Lungery, he has suggested I me that I make an opplication a a majo



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Rochester, Minn.

Soundalin Fellowship. This Sellowship if ablained entitles the halder to live flare sludy in Dental and aral kurzen at the majo Clinic with a sudary of nine hundred dallars pet gear and I feel this would be the only way for one to fully prephro Kiniself to princel exclusively and Surgey. De tandner tild-me that three bandwhis Laronte Wirkel Callege Laneablaines there Fellawships, but thy Lane never received an ppluntin frem a melsill Gradunhe.



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ROCHESTER CALORIE KITCHEN

Rochester, Minn.

I have to abtain the ecommendation of live men accounted with the tenencity from where I obtained to there names are juins on my application to the Laundation and the Laundation will in lives write to four, down wailing & ask dir aucher if I were to place four name or my applications of your cauch ace your way clear to jine me a recommendation. I shall be leaving here in to commence of a few days in Viloria and I well delay making my application for





THE KAHLER HOTEL ZUMBRO COLONIAL HOSPITAL

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THE DAMON HOTEL FISCHER CAFETERIA
AL CURIE HOSPITAL MODEL LAUNDRY
ROCHESTER CALORIE KITCHEN

Rochester, Minn.

Dr Saunders padvake March 23rd, 1928. Dr. F. G. Henry, Bank of Toronto Building, Guy & St. Catherine Sts., Montreal, Cue. My dear Dr. Henry:-Thank you very much for your note concerning Dr. Saunders. I am very glad to know that he entertains no real grievance against his Alma Mater. With all good wishes for a pleasant and profitable trip to Washington, I am, Yours faithfully,