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Original Communications

CANAL TREATMENT AFTER PULP REMOVAL.*

BY DR. HAROLD CLARK, TORONTO.

For convenience, we may divide this subject into, first, those cases where we may assume that the pulp is entirely removed; and, second, those where we know or suspect that it is not.

In most cases of single-rooted teeth where devitalization is recent, the pulp comes away on the broach in such a condition that we can see that it is intact and that it has broken away close to the apical foramen. Assuming that previous to its removal the rubber dam was adjusted, that the chamber was then freed from decay and sterilized, and that a sterilized broach was used for the pulp's removal, we have a perfectly aseptic area to deal with. I might say that I have a little pot of campho-phenique, in which I dip broaches before insertion. I wash the canal several times with 3 per cent. pyrozone, and if that fail to staunch the bleeding I pump 10 or 15 per cent trichloroacetic acid toward the apical extremity of the canal with cotton on a broach. It will be a rare case where this will not stop the hemorrhage in a few moments. Should it fail, I leave the cotton saturated with the trichloroacetic acid in the canal, and exert pressure toward the apex with unvulcanized rubber and a large ended instrument. This will not fail. After the bleeding is stopped I wash again with pyrozone, dry with an Evan's root-canal dryer, then moisten the canal with oil of eucalyptus to facilitate the flow of chloro-percha into the smaller portion of the canal. Assuming that gutta-percha is the material to be used, the canal is now ready for filling. So much for the treatment of those cases where the pulp

*Read at Ontario Dental Society meeting.

is readily removed by the broach. In cases where we know or even suspect that the pulp is not completely removed owing to the fineness, the flatness, or the crookedness of the canal, preventing the ready insertion of the broach, or owing to the mass and strength of the pulp at its apical end where it should break, causing it to be shredded or torn instead of being removed whole, in such cases I resort to the alternate exhibition of sodium-dioxide and sulphuric acid for the purpose of breaking down, dissolving and, by the effervescence, expelling the fragments of pulp tissue that the broach has failed to remove. The only instrumental assistance I resort to in these cases are a Gates-Gliddon drill and a Donaldson pulp-canal cleanser. The former I use to open or enlarge the mouths of fine or obscure canals, not, however, to drill or ream the canal in its length. For this purpose I use the latter instrument, a Donaldson pulp-canal cleanser, not necessarily a new one. I depend on this following the curved canal, scraping its sides, enlarging and straightening it, at the same time carrying the acid and alkaline agents into the fragments of pulp tissue to loosen and remove them. With this chemical and mechanical procedure most canals that seem to forbid entrance may be opened and prepared to a considerable depth. If after preparing the canal or canals in this way I have reason to suspect fragments still remaining at the apical extremity of the root, I dry the canal, fill with a 25 per cent. solution of hydronaphthol in alcohol and with unvulcanized rubber exert enough pressure to saturate the remaining tissue with hydronaphthol. I then dry the canals, moisten with eucalyptus as before and proceed with the filling. In some cases of recently devitalized pulps we find that, instead of having a vital pink or red color, and its removal causing hemorrhage from the apical foramen, the pulp has a yellow or yellowish white color with no bleeding, showing that putrefactive changes have been going on, and that infection may exist at the apex. In such cases, after treating with the sulphuric acid and soda, I leave, sealed in the tooth for a few days, oil of cloves containing 1 per cent. of formaldehyde. If at the next sitting, there is no soreness in the tooth, nor any effusion into the canals, I assume that they are ready for filling.

TREATMENT OF PUTRESCENT PULP CANALS.*

DR. SANGSTER, PORT PERRY, ONT.

I will not enter into the etiology or pathology of this lesion, as it is outside my subject as limited by the programme, which confines me to its treatment. The course of treatment I follow was

* Read at Ontario Dental Society.

introduced to the profession, in its essential features, some years ago by Dr. Callihan, and I have found it so excellent and successful in my own practice that it is only in some minor particulars that I have ventured to modify it.

With hands, rubber dam and instruments thoroughly sterilized, I first apply the rubber dam, and then open into the canal with a sharp burr in the engine. It must be remembered that perfect canal work is only possible where we can see what we are doing. Consequently it is of importance to so open into the canal that, by the unaided eye, or by the help of a magnifying mouth-mirror, we have an unobstructed view of it. After getting a good opening I begin washing out the canal with a hypodermic syringe, using, as an injection, water and listerine in the proportion of four to one. The solution should be as hot as the patient can bear it, and must be thrown into the canal forcibly by the syringe. If the tooth is sore or painful it is better to defer further operation. Simply syringe repeatedly, leaving the crown cavity open, and paint the gum overlying the root with equal parts of tincture of iodine and tincture of aconite.

At the next sitting I again apply the dam, and, after syringing for some time, the excess of moisture is absorbed with bibulous paper, after which I wind the smallest possible fibre of absorbent cotton around the end of a barbed platinum broach. I take up on it a bead of a 50 per cent. aqueous solution of sulphuric acid, and by a gentle pumping motion, coax it to the apex of the root. After about a minute I neutralize the acid by introducing a strong solution of bicarbonate of soda. The effervescence that follows will throw out most of the debris. I then commence syringing again, continuing it in cases of long standing for as much as half an hour, occasionally passing a fine broach up the canal to see that all is clear. Being assured that I have completely removed all putrescent material, the next step is to thoroughly dry and desiccate the dentine lining the canal. To this end I absorb the surplus moisture with bibulous paper points, then moisten the walls with absolute alcohol, which has a great affinity for water, now drying again with bibulous paper. I desiccate the canal with an Evans' root-drier and a fine platinum broach. The desiccation should be continued until all hissing ceases, which indicates a practically dry condition. A good method of ascertaining if desiccation is complete is to introduce a fine, smooth broach to the apex, and then draw it across a piece of dry rubber dam. If it leaves no mark I proceed with the next step.

I believe that here is where some practitioners proceed to fill the root permanently. I noticed a paper by Dr. F. B. Darby, of Elmira, N.Y., written in the *Cosmos* of February, 1899, in which his treatment as given is practically the same as the above up to the pres-

ent stage, when he recommends immediate root filling. This, in my humble opinion, is unwise, in view of the fact that certain bacteriological elements may still lurk at a greater depth than the acid has penetrated to, and may thus cause future trouble. I now dress the canal lightly with cotton and oil of cinnamon if a bicuspid or molar, cotton and oil of cloves if one of the six anterior teeth, and seal with cotton and sandarac. In twenty-four hours, if the tooth is comfortable, I again apply the dam, remove the old dressing, pack the cotton and oil firmly to the apex, and seal the crown with cement. At the next sitting, two weeks later, I fill the canal permanently.

In conclusion, I would strongly urge thorough asepticism throughout every stage of the operation, and would condemn the use of *drills of all sorts, as by this method they are rendered unnecessary.* I would further advise great caution in plunging a broach up an infected canal before thorough irrigation with water and listerine, as there is grave danger of forcing some of the putrescent material through the apical foramen.

FILLING ROOT-CANALS IN DEVITALIZED TEETH.

BY DR. M. A. MORRISON, PETERBORO', ONT.

Being somewhat of an amateur in the art of giving a paper at a convention such as this, I must beg your indulgence for a few moments while I endeavor to make clear to you my method of filling root-canals in recently devitalized teeth. First, I make this statement: That any non-irritating substance that can be introduced into the canals, with a reasonable amount of skill and labor, and when these do not disintegrate nor permit of the infiltration of fluids into the canal, has filled the chief office of a root filling material. It may not have all the desirable qualities, indeed it may have objectionable ones, but if it hermetically seals and permanently fills the canal it serves our chief purpose.

In my practice there are two materials in general use for canal filling, viz., oxychloride of zinc and gutta-percha.

Granted that the canals have been properly cleansed, the rubber dam in position, dry out the canals and sterilize them, as well as the pulp chamber and crown cavity. Wipe out with cotton any surplus medicine, and with hot air again dry out canals, continuing the blast until there is no possibility of any moisture being left. If the canals be in an upper tooth, try and get the force of gravity in your favor. (By tilting back the chair and elevating the patient's chin you can accomplish this in nearly all cases). Mix your

oxychloride to a thin creamy consistency, introduce it into the the canals, using a fine, smooth nerve broach, to work it down to their ends; now fill pulp chamber with oxyphosphate of zinc, mixed quite stiff, and with a large flat-headed amalgam plugger, press it into the canals, gauging your pressure according to the size of the canals—the smaller the canal the greater the force—for there is no danger of forcing it through the apex foramina.

In large canals, and especially where I find large apical opening, I prefer to fill with gutta-percha points, using as a lubricant gutta-percha liquefied in oil of eucalyptus. I prefer this solution to chlora-percha. It is less irritating and has germicidal properties, and when the oil evaporates there is no shrinkage, which cannot be said of chlora-percha. Flood the canal with this creamy liquid, and selecting a gutta-percha point, proper size, and length of canal, pass it in slowly, giving surplus liquid time to ooze into pulp chamber. If the point sticks before it gets to place, wait a while—say one minute—and the eucalyptus will soften the outer part of it and then with slightly warm instrument force it to position. I never attempt to fill small tortuous canals with gutta-percha, I invariably use oxychloride, and always endeavor to get the assistance of gravity.

Special cases may require special treatment, for instance, if the apex foramina be enlarged through accident or other causes, I sometimes use paraffin, manipulating it similar to gutta-percha.

I make no allowance for the accidental forcing of the filling through the apex foramina. It should not occur if the work is carefully done. Some authorities say if it does happen that the oxychloride will be absorbed, the gutta-percha incysted. If such does occur, paint the gum opposite the root with a counter-irritant and leave nature to do the rest.

SYSTEMATIC CARE OF SCHOOL CHILDREN'S TEETH.

BY J. G. ADAMS, L.D.S., TORONTO.
Dental Missionary.

The experience of twenty-eight years in dental hospital mission work among the poor children of Toronto, and the investigation of school children's teeth in Canadian and American cities, as well as of the teeth of children from England, Germany, Russia, Syria and Japan, show conclusively that children's teeth of the present day are deteriorating very fast, and are universally neglected by parents,

the result being that these useful members of the human system are going to destruction by the wholesale, and that, too, in the growing period of life, just at the time, above all others, when they should be in a healthy masticating condition, in order that the children may develop into healthy men and women. What makes this condition of things more serious is the fact that parents are not aware of this change, they supposing that their children's teeth that are aching are the first or shedding teeth, and that the new teeth will soon take their place. Very few parents know the difference between the temporary and permanent teeth. Nothing but semi-annual dental inspection of school children's teeth will remedy this evil. By its adoption every parent would know, twice a year, the exact condition of their children's teeth in time to save them all before the nerves became exposed or the teeth had ached, while the operation could be done without pain at one sitting, and that with less expense per tooth to the parents, as well as less annoyance to the dentists and their other patients sitting in the adjoining rooms. However, before a law can be procured, giving school boards power to require school children to bring a certificate from their family dentist, it will be necessary to make dental hospital provision for the care of the teeth of those children whose parents are unable to pay the usual fee, as well as for those who are not able to pay anything. Having seen the wretched condition of children's teeth as, perhaps, no other person has had the opportunity of doing, I feel it would be a crime in me if I did not do all in my power to remedy this evil. Those who have read the Toronto papers during the past few years know some of the difficulties I have had to contend with in my mission work in Toronto, which has finally reached the climax by the city sending their bailiff and seizing the dental hospital furniture for taxes. However, by doing so they have kindly relieved me from all further care for their poor children. Now my mission field is no longer confined to one small city, as I had supposed it was to be, but is enlarged, so that it takes in suffering childhood, rich or poor, the wide world over. My mission work is also changed. Instead of standing over poor, frightened children, wrenching out permanent teeth that might have been saved if I could have reached the children in time, I am now calling the attention of parents and the public to the serious condition of children's teeth and asking them to organize dental hospital boards to cooperate with dentists in the cities and towns in making dental hospital provision for the poor, and in petitioning the legislature for an amendment to the school law, giving school boards, where the citizens desire it, power to require school children to have their teeth examined. The Hamilton and London dentists have all promised to give half a day once a month to care for the teeth of their poor, if the city provides and furnishes the necessary hospital rooms.

This the mayor and citizens of Hamilton are arranging to do. I trust it will not be long before the dentists and citizens of every other city will fall into line.

DENTISTRY IN BRITISH COLUMBIA.

BY RICHARD NASH, VICTORIA, B.C.

In view of the fact that the attention of a large number of graduates of our dental colleges is turned towards British Columbia as a country offering inducements for the lucrative practice of their profession, it may not be amiss to say a few words from the standpoint of a resident concerning the possibilities of the country. As most people know, British Columbia is a comparatively new country, as yet in the infancy of its development with few towns of much importance from an Eastern standpoint. Upon looking at maps of the province one is apt to think that in the Kootenay and other promising districts of the mainland the towns are so numerous that it must be a matter of little difficulty to select a suitable location. Such, however, is not the case, in the opinion of many of those who have made the attempt. The province covers a large area, and to one looking for a place of settlement where facilities exist, other than those offered by towns in the East for rapidly forming a connection, it presents many difficulties. Our towns are few, in spite of our habit of calling everything a city of which a plan exists and a few lots happen to be disposed of. To the real estate agent these towns are a means of support, and he sees to it that they appear on the map of the country. They are sure, according to his optimistic view, to become the distributing points for whatever part of the country they happen to be in. It may even be that they are to become the centres of great mining camps; but to a young man in search of opportunities for practice I am afraid they are discouraging. Very few of them have a population of more than a few hundreds, are such a distance apart as to preclude the possibility of making a profitable circuit, and are populated largely by prospectors—a hardy class, demanding often only the simple service of extraction for all dental ills. These forerunners of development live principally on the mountains, and, while they help the storekeeper, they almost ignore the dentist.

Then, as regards fees in those upper country towns, where the costs of living, as well as the expense of running an office, are so high. Many of the miners who prospect during the summer spend their winters in the large towns of either British Columbia or the States, and are well trained in demanding the full worth of their money in

all matters, including the services of a dentist. Like in any other place where money is not too plentiful and the credit system happens to be in vogue, the dentist has to wait in many cases longer than he can afford for the payment of his accounts. He, on first settling in the country, has a heavy freight bill to pay on his outfit (for here it is at a high rate that one moves himself and his effects), and, in addition, he must be prepared to carry a good stock of dental supplies, as he cannot visit a dental depot on the British side of the line.

Of course, in a country like this there must necessarily spring into existence many towns of much importance in years to come, when the undoubted mineral wealth of the country is uncovered by the pioneer to the view of capital; but such changes lie in the future, and the determination which will carry a man to success here will, no doubt, command equal success in most other parts of the Dominion. In both cases it means ability, combined with patience and the wherewithal to wait.

The profession is just as over-crowded here as elsewhere, and the genus quack just as ubiquitous. Services may be had by shopping patients for almost any consideration, as some dentists here, as elsewhere, allow no patients to leave their offices on account of dissatisfaction about fees. It goes without saying, of course, that others receive better remuneration for their efforts. The foregoing is not offered with the intention of discouraging anyone from making his home in this province, but only to afford those coming a means of forming a correct idea of what is to be expected on arriving. The theme suggested itself as a result of the experiences of several recent graduates, who came to the country with extravagant ideas as to the ease with which a practice could be acquired, and who, upon realizing their chances of doing so, came to the conclusion that "distance had lent enchantment," etc. They made the mistake of expecting too much, and their disappointment carried them homeward, as their hopes carried them here.

PRESIDENT'S ADDRESS.

BY F. A. STEVENSON, D.M.D., L.D.S., MONTREAL.

GENTLEMEN,—You will have seen from the reports of the secretary, already in your hands, that the past year has been an eventful one for our association.

We have had to appear again at Quebec, this time to protect the Dental Act from mutilation by some of our own members. It is to be greatly regretted that there are still some of our number

who have so little care for the good name of their profession and for the welfare of their confrères, that they are willing to spend unlimited time and almost unlimited sums of money in order to be legally free to advertise themselves as more skilful dentists than any in the province.

They fail to see that if they obtain their object there would be no advantage to them in advertising themselves. We are happy to be able to report that the law has not been changed ; but it was not until the end of the session that the association came off victorious.

We owe a debt of gratitude to those members of the association who so promptly and generously subscribed to the fund asked for by the board when our finances were running low.

It would be a graceful acknowledgment to them to instruct the board to refund the amount as soon as the funds of the association will permit.

The board have again received petitions from various sources. I would earnestly caution you against signing petitions to the board except in rare instances. If the Board does not comply with the request of a licentiate, he can appeal to the annual meeting for consideration.

A petition containing the signatures of a majority of the members of the association practically prevents the board from taking any action, other than to grant the prayer of the petitioner. For, if the board refuse to comply, the petitioner can ask for special legislation at Quebec, with every likelihood of success. This, of course, is quite right if the signatures have been affixed after careful consideration, but unfortunately the majority of signatures to the petitions which have come before us were put there by men who really had not considered the matter and only signed the petitions to be rid of the petitioner. We elect a board to give extra time and thought to the affairs of the association and then tie their hands by signing any petition that may be presented to us.

We are indebted to the DOMINION DENTAL JOURNAL for keeping the question of interprovincial registration before us. It seems absurd that upon the plea of protecting the public that well-qualified practitioners should be unable to legally practise outside the province in which they were educated. Could we not, as a first step in the direction of greater liberty, admit licentiates from other provinces to examination providing they could give satisfactory proof that they had taken a course equal to our own, and also that the province from which the applicant came would give our licentiates the same privilege. When we have some such arrangement between the provinces, we might then try whether the authorities in Great Britain would be willing to reciprocate and admit us to their examinations.

Proceedings of Dental Societies

ROYAL COLLEGE OF DENTAL SURGEONS.

The session of 1900-'01 was opened by the Dean, Dr. J. B. Willmott, in a lecture to the whole student-body at 5 o'clock Tuesday evening, October 2nd. The lectures of the College year close April 12th; examinations begin April 15th, close April 19th; Board meets April 22nd, and commencement exercise April 25th. Number of students registered: Freshmen, 68; Juniors, 55; Seniors, 27. The Hon. G. W. Ross, Premier of Ontario, formally opened the College on Tuesday, October 9th.

Demonstrators.—The following assistant demonstrators have been appointed by the Royal College of Dental Surgeons of Ontario for the session of 1900-'01: Dr. Campbell, Messrs. Hoggan, McDonald and Paul. There are two other appointments to be made.

DENTAL ASSOCIATION OF THE PROVINCE OF NOVA SCOTIA.

The tenth annual convention of this association was held at the Terrace Hotel, in Amherst, N.S., on August 28th.

There was not a very large attendance of members, as it was intended merely to transact routine business, elect the officers, appoint the committees for the ensuing year, and adjourn to meet in joint convention with the New Brunswick Society and dentists of Prince Edward Island, at St. John, N.B., August 29th.

The new officers are: Dr. H. Lawrence, President; Dr. C. S. McArthur, 1st Vice-President; Dr. H. G. Dunbar, 2nd Vice-President; Dr. F. W. Ryan, Secretary; Drs. M. K. Langille, H. H. Bigelow and C. O. H. Webster, with the President and Secretary, compose the Executive Committee; Drs. F. W. Stevens and H. Woodbury, Auditors.

In order to make the meetings more helpful and secure an interesting programme the society adopted the suggestion of the retiring president to request and appoint particular members to specially observe and record their experiences in the treatment of certain specified conditions and make a report of the same at the next meeting. By resolution, therefore, Dr. M. K. Langille was allotted "The Practical Treatment of Pyorrhea Alveolaris"; Dr. C. S. McArthur, "Recession of the Gums"; Dr. H. Lawrence,

"The Articulation of Artificial Teeth"; Dr. H. G. Dunbar, "Means of prolonging the Anestheticism by Nitrous Oxide Gas"; Dr. F. W. Wright, "Anchoring Gold Fillings in Cement."

Halifax, N.S., was chosen as the place of meeting for next year.

F. W. RYAN, *Secretary*.

ADDRESS OF THE RETIRING PRESIDENT, DR. LANGILLE.

Gentlemen of the Nova Scotia Dental Association,—I most heartily thank you for the honor conferred upon me last year in electing me to the presidency of this association, an honor which I most highly prize, and the duties of which position I have tried to perform to the best of my ability. I have looked forward to meeting you on this occasion with a great deal of pleasure, especially as I have felt confident of your sympathy and support.

Your executive, in arranging for these meetings, have not had smooth sailing all the way, but I trust you will find that they have performed their work in a satisfactory manner, and I wish to make especial mention of our very efficient and faithful Secretary, Dr. Ryan, whose services in this connection have been invaluable. I sincerely hope that the present session and those of our union meeting in St. John will not only be thoroughly enjoyed, but decidedly profitable to all who attend. One of the most regrettable features of our association meetings in the past has been the small attendance, and I would like to hear some suggestions for arousing the interest of our members and placing more of them on the list of active workers.

It has occurred to me that if a number of men were asked to take up disputed or unsettled points in operative or prosthetic dentistry, keep memoranda of a certain number of cases that came under their observation during the year, and at our next meeting give in detail the result of their observation, it would be both helpful to themselves and instructive to others. We have in our association sufficient material, if thoroughly interested, to make it one of the most progressive in the land. Our profession has gone ahead by leaps and bounds in the last twenty years, and to-day enjoys a proud position among the learned professions. Many new and valuable devices have been placed within our reach, as well as many new methods of treatment, which should be taken advantage of whenever practicable or beneficial to our patients. Man has so thoroughly controlled and so ingeniously harnessed one of the mightiest forces of the universe that when applied to our lathes and dental engines reduces the labor of modern dentistry to a minimum. This unseen and mighty power now shares with us the labor of our office hours and may be in one sense truly styled the dentists' "silent partner."

Gold bridge-work, so sadly abused in the past, in the light of the present day is growing in favor as the most hygienic method of inserting artificial dentures.

Pyorrhœa alveolaris, although considered by many as incurable, can, I am confident, be successfully treated and permanently cured, and I am pleased to note that a paper is to be read, as well as a clinic given, on this subject at our meeting in St. John.

Thanks to the efforts of our association, as well as our dental literature, our code of ethics is more generally observed; the merchant dentist and the advertiser, although still to be found, are much less in evidence than formerly. We have accomplished much, we may accomplish more, and each of us should feel a personal responsibility in the advancement of our profession. As individuals, if we are alive, we should be growing, and the close of each day should find us better prepared for the work of the morrow.

One of the most hopeful signs of our progress is the large increase in operative dentistry. Dentists are teaching, and the people are learning to place more value on the natural teeth. Still there is much to be accomplished in this direction, for we have to deplore the vast number of teeth that are constantly being sacrificed for the sake of the artificial, and sometimes I fear for the sake of dollars; but the dentist who would recommend such a course could hardly be called honest. Careless operating and the use of unsuitable filling material has done much towards discouraging many people from making another effort to save their teeth, but the signs of the times point to better things. There are, of course, very many cases where nothing but the artificial will meet the requirements, and the same may be said of a wig or a wooden leg, but who of us would not prefer the natural, when put in good condition, to the artificial product?

There has been a difference of opinion expressed by our members in the last two years as to whether we should encourage the continuance of these union meetings, or favor the formation of a maritime association, and as these questions will in all probability come up for discussion at the present or an adjourned meeting, I trust you will give them your careful consideration, and decide the matter to the best interests of all concerned.

The Committee on Legislation has been at work on our by-laws, and the result of their efforts you will be asked to inspect and approve, and I trust that our meeting now open for business, and each succeeding session, will prove beneficial both to the public and the profession.

INTERNATIONAL DENTAL CONGRESS, PARIS.

The Third International Dental Congress was an unqualified success both socially and scientifically. The opening and closing meetings were held in the large hall of the Palace of Congresses, in the Exposition grounds. The clinics were held from 9 to 12 every forenoon throughout the whole meeting at the two dental schools in Paris, Ecole Dentaire and Ecole Odontotechnique. The scientific meetings were held in the afternoon from 2 to 6 at the Hotel des Societe's Savantes. The evenings were provided for by social gatherings. There were national dinners and international dinners, theatre parties and private parties by the score. Some little inconvenience was experienced by those from foreign countries, because the different places of meeting were so far apart. A great deal of time was spent in getting from one place to another. While this may have been an inconvenience and a loss of time, yet it can be said with confidence that the Committee on Arrangements did the best possible under the circumstances. There were over 1,200 dentists in attendance, and space and appliances had to be obtained for clinics, lantern demonstrations, reading of papers, national dental exhibits, dealers' exhibits, committee rooms, banqueting hall, printing office, translators' rooms, etc.

The French dentists are to be congratulated for having successfully organized, carried on and closed, the largest congress of dentists ever held.

THE OPENING MEETING.

The Congress was inaugurated under the honorary presidency of Prof. Brouardel, Dean of the Medical Faculty of Paris, and the acting presidency of M. Gariel, Professor of the Faculty of Medicine, and Official Government Representative to the Congress. Grouped around the president on the platform were the vice-presidents, the committees on organization, and the official delegates of the foreign governments. The Congress was opened by an address from M. Godon, Chairman of the Commission on Organization.

M. GODON'S ADDRESS.

The Congress, said M. Godon, has been officially received by a delegate of the Government of the Republic. After having welcomed the President of the Congress, the delegates of the governments, universities, learned societies and schools, the members of foreign and national committees, and thanked the different bodies who have so generously assembled from every corner of the globe to attend this scientific congress, M. Godon thus described the rôle of the true dentist :

"The dentist is rather like a sentinel at the door of the human citadel ; he takes part in its defence together with the physicians

and surgeons ; often, indeed, it is he who sounds the first alarm of danger to the entire organism. He protects the region he is charged to guard against disease, and where it is destroyed he restores it to such a degree, and re-establishes it to such a degree as to restore its physiological function, which was believed to have been lost. It is just the peculiar character of this invention which creates for him a place apart among those who devote themselves to the preservation of the human being ; so that it can be said that odontology is the most distinct, the most special, the most autonomous among the medical sciences."

M. Godon then paid homage to the memory of scientists and practitioners who have aided in the progress of the dental art. He expressed the hope that the next Congress might contribute equally to the realization of new discoveries. "Modern dentists," he said, "cannot be reproached with refusing aid to the poor. To-day the dentist, as well as the physician, is ever ready to devote his time and labor to them."

Dr. Sauvez, General Secretary, read his report, in which he expressed a desire that a permanent committee be appointed by this body to look after the general welfare of the profession.

Dr. Vian, Treasurer, reported that up to time of speaking 1,150 members had been enrolled.

After a short address of welcome to the foreign delegates by Prof. Gariel, the honorary president and chairman of the sections were elected.

The following gentlemen addressed the meeting : Prof. Hesse, of Leipsiz, for Germany ; Mr. Geo. Brunton, of Leeds, for the British Empire ; Dr. Franck, of Vienna, for Austria ; M. Baruch, of Brussels, for Belgium ; M. Heedé, of Paris, for Norway and Denmark ; M. Aguilar, of Madrid, for Spain ; Dr. Decher for the Grand Duchy of Madgeburg ; M. Grevers, of Amsterdam, for Holland ; M. Sjöberg, of Stockholm, for Sweden ; M. Guillermin, of Geneva, for Switzerland ; Mr. Cunningham, of Cambridge, for Cambridge University ; Dr. Aripeèa, in the name of the Odontological Society of Finland ; Dr. A. W. Harlan, of Chicago, for the United States of America.

MR. BRUNTON'S ADDRESS.

M. le President, Mésdames, Messieurs,—I have been asked to speak for England. What can I say for England? England's territory, England's work is all over the world. But that reminds me that I saw a very good and practical piece of advice before I left England ; it was as follows : "Don't indulge in the national habit of boasting." If you see the universe, and observe the different portions of the world which either belong to or are governed by Great Britain, and you take the British flag—red, white

and blue—and you stretch it over those territories and look through it, the inhabitants all have the same appearance. Some are red, some are white, and some are blue; but if you take the French flag and do the same, the inhabitants look the same. We are very near each other—our colors are the same. I have been very much struck with your beautiful city. I have been admiring the beautiful statues; but one amongst them all struck me most, it was the simple statue of the Maid of Orleans. She sits with the flag of France in her hands, and with a strong and holy look in her face, she holds the flag high and keeps it from dishonor, and I thought that would be a good example for us who are assembled at this Congress to hold high the flag of professional ethics and professional behavior, and if we do that our Congress will not be a failure. Aim high! It is not failure, but disgraceful conduct which is a crime.

DR. HARLAN SPOKE AS FOLLOWS: .

Mr. President, Delegates, Ladies and Gentlemen,—In the name of the National Committee of the United States of America, and the official delegates of the dental societies, we tender to the representatives of France our best wishes for this hearty welcome. In 1889 the first dental congress that was ever seen was held in this city, and from that small beginning, to-day we see more than one thousand adherents at the Third International Congress. It is organized in the interests of science and humanity, and for no personal glorification, nor for any selfish object. And we, from our side of the water, are glad to participate in the Congress, which at the beginning assures abundant and magnificent success. For the tribute that the President paid in his address to the work done in the United States, we thank him, and for his friendly expressions and hope that in the countries we may visit in the future as congressists, the same friendly and united sentiments will greet us. It was in the United States, as you know, that the first dental college in the world was established only a few years ago, and to-day from that small beginning nearly every civilized country in the world has laws regulating the practice of dentistry, and recognizing it officially. I have the pleasure and honor to-day of telling you that the United States Government for the first time in its history, has named three official delegates to this Congress. We expect through the communications to the different sections to speak further to the civilized world.

THE CONGRESS BANQUET.

On the evening of Saturday, August 11th, M. Gariel presided over a large assembly of congressists, representative of all the nations present, who dined together at the Terrasse du Mareorama, in the Exhibition grounds.

M. GODON'S SPEECH.

I propose to you, said M. Godon, to devote the evening to the praise of those who constitute the work of this Congress, who render it useful by their scientific and technical accomplishments, to those without whom all the science of the good organizers would be of no avail—in one word, to the good workers of the Congress. In fact, it is they—the demonstrators and authors of papers and exhibits—whose work stands out already sufficiently to confirm my words at the opening meeting; it is they who, I repeat, make of this meeting the most numerous attended, the most representative, the most scientific dental assembly which the world has ever seen. I ask you, therefore, to make this gathering exclusively a fête to the good workers of the Congress; I intended to mention the principal ones, but I have abandoned my intention, the list is too long. And if we are celebrating this evening the fête of the good workers of the Congress, do you not think that we could honor them all under one name?—as when a building is completed, the honor is given to the architect who has directed the work. And this architect, who deserves our admiration, do you not think with me that he is well qualified to-day to symbolize the workers of the Congress, the great savant to whom the government has, as in 1889, confided the supreme control of this living encyclopedia of the 19th century, of whom I spoke at the opening meeting, and who constitutes the work of the Congress of 1900. I drink to Professor Gariel, who honors us by presiding at this banquet, to the savant who gives his sympathy and his devotion to our work.

DR. SAUVEZ spoke of the organization, of the transactions, and said that the results which one has the right to expect from a Congress so numerous and comprising so many eminent personages from all parts of the world, could be fruitful if all those who had given demonstrations or communications or taken part in the discussions would take the trouble to write out, before leaving Paris, the important and essential points of their work and send them to the General Secretary. It must not be thought that now that they had thanked at different banquets the presidents and secretaries of national committees and of sections, the work was finished; only the first part of the work had been accomplished so far; they had been not only secretaries but organizers of pleasure parties; they had collected together communications and demonstrations. The rôle of the secretaries was now about to commence, and it was, thanks to the combined efforts of the presidents of the various national committees, and to the efforts of their secretaries, that so good a result has been attained by each country which was represented. Their national honor was at stake in seeing that the work of their compatriots was honorably represented in the *Transactions*; and as for France, the duty of

the presidents and secretaries of sections was to collect and tabulate the mass of the general work. To this end each section should contribute its assistance to collaborate in compiling the book, which would be the mirror, the result, of the Congress of 1900.

Dr. Sauvez, in conclusion, asked those present when they should be far from France not to forget an unhappy general secretary who relied on them all. "I drink," said he, "to the book of the *Transactions of the International Dental Congress of 1900.*"

DR. HARLAN, Chicago, replying to the toast of the "American Delegates," said: It is expected that I will say something on behalf of my countrymen present to-night. I will not tire you with a long speech, because it is far from my wish to inflict such upon you. One thought occurred to me during the speech of Professor Gariel, and that is this: In France the art of modern dentistry was born, and in France, at the close of the 19th century, the Professor has pronounced that this is a science—that it is no longer an art only, but comprises everything that enters science. We accept his *pronunciamento* as that of an authority, and we say to-night at the conclusion, or nearly the conclusion, of the third International Dental Congress, we have been born anew, and christened by the Professor who presides so ably to-night. I thank you on behalf of my countrymen for the reception we have been accorded, and for your recognition of the part played by our countrymen. I think that the country has done its share, and in the future you may count upon the United States for their best efforts.

MR. BRUNTON: Mr. President, Ladies and Gentlemen,—I offer you the most cordial and heartfelt felicitations on behalf of the British Dental Association, and on behalf of Britons and Colonials as well. This Congress has seemed to me to prove how small the world is, because in this centre of the world, the heart of the world—Paris—we are all able to meet from so many parts. You know the great telescope here has been able to bring the moon apparently to within about thirty miles of the earth. The Congrès Dentaire has been able to bring us all very much closer together. That is one of the happier results of the Congress. I congratulate you on the marriage of Dental Art and Dental Science.

DR. AGUILAR, Spain, replying to the toast in honor of Spain, delivered an eloquent speech in his native language, and concluded in English as follows: "And now I must say one word also in English. I, professionally, am of America. I must give thanks to you English-speaking people, I must give you a word of thanks from the Spaniards, who know how to appreciate your beautiful work. We thank you from our hearts, we thank all the English people for their kindness.

Sunday afternoon, August 10th, over seven hundred dentists, with their wives and families, went by train to St. Germain, where

luncheon was served in the open air. After luncheon, the assemblage was entertained with speeches and music. At five o'clock three steamers were waiting on the Seine to carry the people to the Exposition grounds, which were reached about 9.30 after a most pleasant trip up the river. On board the steamers each nation represented gave an example of its national entertainment.

A further report of the clinics and papers read at the Congress will appear later.

REPORT OF THE FOREIGN RELATIONS COMMITTEE OF THE NATIONAL ASSOCIATION OF DENTAL FACULTIES.*

(Continued from September issue.)

Your committee does not feel at liberty to recommend the acceptance of an oral and theoretical course as the equivalent for one including practical work. We cannot believe that the certificates of private and irresponsible practitioners can by us be accepted as any part of a college course, and hence we have given them little consideration. It is quite probable that in some instances we have recommended that one year's advanced standing be given the holders of some certificates when further knowledge might show that they should be admitted to our senior classes, but we have thought it wisdom to err, if any mistakes are made, upon the safer side, as future action can readily correct any such errors.

Australia.

A very complete report from the various colonies of Australia and New Zealand has been made by the advisory board appointed for those countries. It would appear that in most of the colonies there is no dental legislation, but Victoria has lately secured a law analogous to that of England, and in Melbourne a dental school has been organized whose curriculum, from the partial syllabus furnished, seems to be a comparatively broad one. The dean of the "Australian College of Dentistry" is an American graduate, and he appears to have the confidence of the dentists of Australia.

Your committee is unable positively to determine whether the school in all respects comes up to our minimum requirements, but this it has directed its chairman definitely to ascertain, after which your committee will be prepared to recommend to this body some proper action. There has also been established in Melbourne, Province of Victoria, the "Dental College and Oral Hospital of

Victoria," but your committee is not at the present time in possession of sufficiently definite information to enable it to offer any recommendation concerning it.

In the provinces of Western Australia and Tasmania no dental legislation has been secured.

There is a dental law in New Zealand, and the member of the Advisory Board from that province has furnished your committee with an abstract of it. There are no dental schools in the province.

Switzerland.

Full reports from this country have been furnished by Dr. Bryan. It is a republic analogous to our own country in some respects, the federal union being composed of separate cantons. There are some excellent universities which offer certain facilities for dental study, but their practical instruction, we believe, cannot be accepted as an equivalent for that offered by American dental colleges. Your committee recommends that holders of the Swiss national diploma be given one year's advanced standing in the schools of this association, but that no consideration be at present extended to holders of the cantonal qualifications.

Spain.

Complete reports have been furnished by members of the Advisory Board. The Spanish requirements in medicine are very high, but your committee cannot learn that there are any dental schools, or dental departments of universities, whose course of instruction can be accepted as the full equivalent for the instruction given in American dental colleges.

France.

Your committee is aware that separate dental schools exist in France, and its chairman has been in daily expectation of receiving their curriculum of study, but up to this time has been disappointed. Without this exact knowledge the members do not feel themselves justified in recommending any action, for we cannot proceed in so grave a matter upon mere assertions or impressions. As members of your committee will visit France in the immediate future, and will carefully investigate the course of study, we ask that we be given authority to incorporate our recommendations in this report after such investigation shall have been completed.

Germany and Austria.

The dental schools of these countries are departments of the universities, and only university students attend them. The in-

struction consists of lectures and clinical work given by from one to three dental professors, who lecture upon the different dental subjects. Instruction in chemistry and allied studies is afforded in the School of Philosophy or Science; in anatomy, physiology, etc., in the School of Medicine. No special instruction is given dental students except by the very few dental teachers. The clinical instruction is largely devoted to extraction and oral surgery. The practical work is usually quite limited. There is no obligatory course, but students enter for such lectures as they may choose, paying the fees of each professor separately. There are no obligatory hours for study or lectures.

The mechanical instruction consists of lectures on the principles of mechanics, the practical work being usually done in private laboratories. The examinations have very little resemblance to ours, each teacher asking three questions out of a list of forty approved by government. They are not usually as exhaustive or comprehensive or scrutinizing as ours. The licensing or approving power rests with the "Kultus Ministerium," or department of religion and education. The great majority of dentists in practice are Zahntechnichers—mechanical dentists—upon whose work no restrictions are placed, as they are not recognized by the government.

Your committee recommends that students speaking the English language, who have taken the full dental course in German or Austrian universities, be eligible for reception in the junior classes of American dental colleges, provided it be shown that they have had at least two semesters of competent college instruction in practical laboratory and operative work. It further recommends that students speaking the English language who have had at least four semesters of such instruction in operative and prosthetic practical courses, and who shall have finished the dental course in the University of Berlin, or in any German or Austrian dental school whose course of instruction offers a full equivalent, be eligible for admission to the senior classes of accepted American dental colleges.

Italy.

In Italy the practice of dentistry was long without special restrictions. Then an attendance upon lectures in a medical school was required, and a dental diploma was issued. In 1892 a law was passed which required dentists to obtain a medical diploma. This was not enforced until 1898, when a movement against foreign practitioners was inaugurated. They appealed to the courts and carried the matter to the supreme court, which decided that those in practice previous to 1888 had rights which

could not be abrogated. At present the law of 1892 is in force, and this requires a medical diploma for the practice of dentistry and phlebotomy.

There are, we believe, no schools in Italy which have courses that can be accepted as equivalent to those of our American dental schools. The instruction given in the medical schools your committee believes to be too exclusively general in its character to form an acceptable course in dentistry for American students.

Mexico.

There is a medical school in the City of Mexico which purports to give dental instruction. Your committee cannot learn that it is of such a character as will enable it to be accepted as the equivalent for a course in an American college.

Japan.

There is one dental school in Japan—that of Dr. Takayama, in Tokio. It confers no degree, but gives a certificate which entitles the holder to government examination, the same as if he had studied with some practising dentist. As the instruction is personal and the school is quite irresponsible, your committee believes that no consideration can be given to it.

Holland and Belgium.

In these countries the title of dentist is obtained by passing a practical examination in the theory and practice of dentistry. There are no separate dental schools, and we are not sufficiently informed of the comprehensiveness of the syllabi of the universities to offer any recommendations concerning them.

Great Britain.

There can be no questioning the fact that England has some excellent dental schools. The only embarrassing circumstance in the determination of their status relative to ours lies in the great difference between the educational systems of the two countries. Undoubtedly they place greater stress upon preliminary educational requirements than we do, but your committee is of the opinion that our practical instruction is superior. Originally, we believe there was little instruction given in prosthetic work during the term of attendance upon hospital lectures. Students were supposed to come to the college for didactic instruction, the practical part having been previously communicated by a preceptor. It should be comprehended that English dentists frequently employ a mechanic, who is not required to possess any special educational qualifications, the registered dentist mainly

confining his attention to the operations of the surgery or operating room.

In this country we believe the practical work of the laboratory should form a part of the college course, and we do not graduate a student until he shall have satisfactorily completed the whole curriculum within the college walls. We are under the impression that the English system is undergoing a change in this respect, and that practical laboratory work will soon form a part of the obligatory college course. We recommend that all students who shall have finished the complete course in any recognized English, Irish, or Scotch dental school or hospital shall be eligible for reception as senior students in American dental colleges upon proof of their having taken as a part of such course two years of instruction in a properly equipped dental laboratory and dental infirmary connected or affiliated with such dental school or hospital, and which requires the successful completion of the work deemed essential by recognized American schools, as formulated in the minimum requirements for foreign dental schools accompanying this report. We further recommend that for the present no consideration be given to partial courses in any of the dental schools of Great Britain.

Sweden.

Very complete reports have been furnished by the chairman of the Advisory Board, Dr. Forberg.

The country has one dental school, which is the dental department of the "Carolina Medico-Chirurgical Institute of Stockholm." Instruction is given by five professors of the medical department, and there are three dental professors, occupying respectively the chairs of dental surgery, operative dentistry, and dental prosthetics and orthodontia. From the assurances given by Dr. Forberg, your committee believes that its graduates should be permitted to enter the second-year class of recognized American dental colleges, provided they shall have complied with our requirements concerning mechanical laboratory work.

Your committee has not sufficient knowledge concerning this school to warrant further recommendations at present.

Canada.

In the Dominion of Canada there is but one school which demands consideration, and that is a member of this body. Yet the educational systems of the two countries, especially in professional matters, are so different as to engender continual embarrassments. Canada being a foreign country, your committee

has felt itself bound in duty to place it in the list of those countries whose relations with us must be taken into consideration. The dental educational system of Ontario approaches more nearly that of England than that of America. It has an analogous system of indentures which the dental student must sign, and private preceptorship forms a portion of its obligatory instruction.

This is directly at variance with our system, which accepts no tutorship by irresponsible parties. The dental law of Ontario forbids the entrance upon practice of any one who has not taken his final course of instruction in the Royal College of Dental Surgeons of Ontario. We believe that this principle is the correct one, and that the same rule should be made applicable in the United States, and that here, as there, no foreign qualification should be sufficient for registration in the various states of America. But the membership of this foreign school in our association presents an embarrassment which for the present seems insuperable, and your committee has therefore no recommendation to make, but leaves the matter for future consideration in the hope that some code of international agreement may be devised which will give to the graduates of America's recognized colleges who desire to practice in Canada the same privileges extended to the alumni of the excellent Ontario dental college.

Concerning other foreign countries, your committee is not in possession of sufficiently definite information to warrant any action whatever. We have no knowledge of the existence of any courses of instruction which can be accepted as an equivalent for courses in the institutions having membership in this body, and therefore advanced standing in our schools cannot in justice to our own students be granted, save in the instances above enumerated. The committee will gladly make use of any further information which may be furnished them, and will, in the furtherance of the duty with which they are charged by this association, embody such knowledge in future reports.

Report concerning the minimum requirements to be demanded by the National Association of Dental Faculties for the recognition of foreign dental schools whose students desire advanced standing in the colleges of the association:

1. The college must require of matriculants a preliminary education which is the full equivalent of that demanded by the schools of this association.

2. The college must demand of students full attendance upon at least three full annual courses (not semesters) of lectures of not less than seven calendar months each, in separate years, covering all the studies proper to a full dental curriculum.

3. The college must possess a bacteriological laboratory, with sufficient of equipment for instruction in a competent course in bacteriology, which must form a part of its curriculum of study.

4. The same must be required in chemistry, histology, and pathology.

5. There must be a technic laboratory in which shall be taught the proper manipulations for the insertion of all kinds of fillings for teeth, the preparation and filling of the roots of teeth, the tempering and shaping of instruments, the drawing of wire and tubing for cases in orthodontia, and the cutting of bolts and nuts.

6. There must be prosthetic laboratories sufficiently equipped for teaching all kinds of prosthetic work, and the construction of all the approved prosthetic appliances.

7. There must be a sufficiently equipped laboratory for instruction in making crowns and bridges, and the construction of appliances used in orthodontia.

8. There must be a properly equipped infirmary or surgery for the reception of patients, upon whom each and every student shall be required individually to perform all and enough of the operations necessary in dental practice thoroughly to qualify him for the successful pursuance of his profession.

9. Complete records of the work done by each student, of his attainments at sufficient and full examination in each subject of the curriculum of study, of his attendance and deportment during the course, must be permanently kept.

10. No credit must be allowed for any work not done under the immediate supervision of instructors connected with or especially approved by the college, and who are in direct affiliation with the faculty.

The following is a list of the countries for which advisory boards have been designated, and the appointments and nominations so far as made:

COUNTRY.	NAME.	COLLEGE.	POST OFFICE ADDRESS.
Great Britain	Wm. Mitchell, D.D.S.....	Univ. of Michigan ...	39 Upper Brook St., London, Eng.
“	W. E. Royce, D.D.S.....	Phil. Dental College ..	2 Lonsdale Gardens, Tunbridge Wells, Eng.
“	B. J. Bonnell .....	.....	94 Cornwall Gardens, S. Kensington, London.
Holland and Belgium ...	J. E. Grevers, D.D.S.....	.....	13 Oude Turfmarkt, Amsterdam, Holland.
“ “ ...	Ed. Rosenthal, D.D.S ...	Harvard University ..	19 Boul. du Regent, Brussels, Belgium.
“ “ ...	C. Van der Hoven, D.D.S ..	.....	Der Haag.
Denmark, Swe. & Norway	Elof Förberg, D.D.S	Phil. Dental College ..	Sturegatan 24, Stockholm, Sweden.
“ “	S. S. Anderson, D.D.S	Univ. Pennsylvania ...	Christiania, Norway.
“ “	L. P. Vorlund-Kjaer, D.D.S	Phil. Dental College ..	Copenhagen, Denmark.

COUNTRY.	NAME.	COLLEGE.	POST OFFICE ADDRESS.
Russia	H. V. Wollison, D.D.S.....	N. Y. Coll. Dent.....	10 Quai de l'Amaranti, St. Petersburg, Russia.
"	Theo. Weber, D.D.S	N. Y. Coll. Dent.....	Helsingfors, Finland.
"	Geo. Th. Berger, D.D.S	Phil. Dental Coll. '77..	St. Petersburg, Russia.
Germany	W. D. Miller, D.D.S.....	Univ. Pennsylvania... ..	Victoriastrasse 30, Berlin, Germany.
"	C. F. W. Bodecker, D.D.S.	N. Y. Coll. Dent.....	55 Unter den Linden, Berlin, Germany.
"	Friedrich Hesse, D.D.S....	N. Y. Coll. Dent.....	Goethe Str. 6, Leipsig, Germany.
Austria and Hungary ..	Dr. Szigmondi.....	.....	.....
" ..	Dr. Waeiser.....	.....	.....
" ..	Dr. Arkövy.....	.....	.....
Italy and Greece.....	Albert T. Webb, D.D.S....	Univ. Pennsylvania... ..	37 Via Nazionale, Rome, Italy.
" ..	Tullio Avanzi .....	.....	.....
" ..	A. V. Elliott, D.D.S.....	Univ. of Michigan, '87..	10 Via Tornabuoni, Florence, Italy.
France	J. H. Spaulding, D.D.S....	Univ. Minnesota.....	39 Boul. Malesherbes, Paris, France.
"	I. B. Davenport, M.D	Coll. P. & S., New York	30 Ave. de l'Opera, Paris, France.
"	G. A. Roussel, D.D.S.....	N. Y. Coll. Dent.....	74 B'd Haussmann, Paris, France.
Spain and Portugal	R. H. Portuondo, D.D.S... ..	Univ. Pennsylvania... ..	Paseo de Recoletos 3, Madrid, Spain.
" ..	Florestan Aguilar, D.D.S. .	Phil. Dental College ..	Serrano 5, Madrid, Spain.
" ..	T. J. Thomas, D.D.S.....	.....	Bilbao, Spain.
Switzerland and Turkey.	L. C. Bryan, D.D.S.....	Boston Dental College.	1 Steinenberg, Basel, Switzerland.
" ..	Theo. Frick, D.D.S.....	Univ. Pennsylvania... ..	14 Tonhallenstrasse, Zurich, Switzerland.
" ..	Paul J. Guye, D.D.S.....	Penn. Dental College..	12 Rue de Candolle, Geneva, Switzerland.
Japan, China and India.	Louis Ottogy, D.D.S	Western Dental College	87 Main St., Yokohama, Japan.
" ..	J. Ward Hall, D.D.S .....	.....	Shanghai, China.
Australia & New Zealand	Alfred Burne, D.D.S.....	Phil. Dental College ..	1 Lyons Terrace, Liverpool Street, Sydney.
" ..	A. P. Merrill, D.D.S	Phil. Dental College ..	52 Collins St., Melbourne.
" ..	Herbert Cox, D.D.S	Univ. of Michigan	210 Queen St., Auckland, New Zealand.
Cuba & W. India Islands	Rice R. Buchanan, D.D.S. .	.....	47 San Francisco St., San Juan, Porto Rico.
"
Mexico & Cent. America.	.....	.....	.....
"
Venez., Colom. & Ecua'r.	.....	.....	.....
"
Peru, Bolivia and Chili.	S. R. Salazar, D.D.S.....	Chicago Col. Dent, Surg	Lima, Peru.
"
Brazil and Gujana .....	.....	.....	.....
"
Argentine, Para. & Uri.	.....	.....	.....
"
"

W. C. BARRETT, *Chairman*, 208 Franklin St., Buffalo, N.Y.
 S. H. GUILFORD, 1728 Chestnut St., Philadelphia, Pa.
 J. D. PATTERSON, Ninth and Walnut Sts., Kansas City, Mo.
 T. W. BROPHY, 126 State St., Chicago, Ill.
 H. W. MORGAN, 211 N. High St., Nashville, Tenn.
Foreign Relations Committee:

DENTAL REQUIREMENTS FOR THE ARMY AND NAVY.

Requirements of Her Majesty's Naval Service as regards the teeth of candidates, issued by the Medical Department of the Admiralty, April, 1899 :

- (a) Seven teeth defective or deficient in persons under seventeen years of age on the day of entry, ten defective or deficient teeth in persons above the age of seventeen, will disqualify.
- (b) Both classes of persons must, however, possess at least four perfectly sound opposing molars, viz., two in each jaw, and the same number of incisors similarly placed.
- (c) A tooth is to be considered defective when it cannot be made permanently serviceable by dental repair.
- (d) In all cases due regard is to be paid to the condition of the remaining teeth and their being likely to last for at least twelve years. Credit is to be given for teeth which have not erupted, unerupted wisdom teeth excepted.
- (e) Artificial teeth not recognized.

Requirements of Her Majesty's Military Service as regards the teeth of candidates for commissions, issued by the Medical Department of the War Office, April, 1899 :

The candidates' teeth to be in good order, loss or decay of ten teeth will be considered a disqualification.

Decayed teeth, if well filled, will be considered as sound.

Artificial teeth not recognized.

Requirements of Her Majesty's Military Service as regards the teeth of recruits, April, 1899 :

That he possesses a sufficient number of sound teeth for efficient mastication.

The acceptance or rejection of a recruit on account of loss or decay of several teeth will depend upon the consideration of the relative position of those which are no longer effective : thus the loss of several teeth contiguous to each other in the one jaw, leaving none to oppose those in the other jaw, would be a cause for rejection, but not the loss of a similar number distributed between the two jaws and in different positions. Again, the loss of many teeth in a man of an indifferent constitution would point to rejection, while a thoroughly robust recruit who has lost an equal number might be accepted.

TORONTO DENTAL SOCIETY.

The Toronto Dental Society holds its meetings in the College building the second Tuesday in each month, at 8 p.m. At the October meeting the following officers were elected : Hon. President, J. B. Willmott ; President, A. E. Webster ; 1st Vice-Presi-

dent, Guy G. Hume ; 2nd Vice-President, G. A. Roberts ; Secretary, W. Spaulding ; Treasurer, Chas. E. Pearson ; Councillors, McDonough and Wilkinson ; Member and Ethics Committee, Trotter, Eaton and Price ; Dinner Committee, W. E. Willmott, Trotter and Wilkinson ; Archivist, Geo. Martin.

INSTITUTE OF DENTAL PEDAGOGICS.

The next meeting of the Institute of Dental Pedagogics will be held during holiday week in Nashville, Tenn.

NATIONAL DENTAL ASSOCIATION.

The National Dental Association will hold its fifth annual meeting in Milwaukee, Wis., in July, 1901.

ROYAL DENTAL SOCIETY.

The officers for 1900-'01 of the Royal Dental Society will be elected October 18th, 1900.

UNIVERSITY CLUB.—It is reported that the graduates of the University of Toronto are seriously considering the advisability of forming a University Club. Progress will be reported.

Selections

EXTREMES IN BRIDGE-WORK.*

BY M. C. MARSHALL, D.D.S., ST. LOUIS, MO.

Extremes in bridge-work might require many pages if the whole subject should be presented, as there are many varieties that border on the quicksand of uselessness ; stronger still will I make it, and say injury.

The day our worthy president asked me for the subject of a paper I had thoughtlessly promised him, a gentlemen, a cast of whose mouth I show you, came to me and asked to have two

*Read before the St. Louis Dental Society.

bridges made to supply the missing teeth, as shown by the cast. You will observe that the superior second bicuspid and first molar have been lost on both sides; also the third molar on the left; you will also notice that the space has so closed on the left side that it would about admit a medium-sized molar, and on the right side the closure has been greater, leaving space only wide enough to admit a bicuspid. The adjacent teeth had some very small fillings in them that had been in a great many years and are absolutely perfect. He lost these missing teeth some fifteen years ago; experienced no difficulty whatever in masticating, and never had any indigestion.

I asked why he wanted bridges. He said he did not care for them, but a dentist had told him about six weeks previously that he ought to have them. I asked if he knew how the dentist proposed doing the work. He said "Yes," and went on to relate that the four adjacent teeth were to be cut down and gold crowns made for them and the missing teeth were to be soldered in between. I shuddered. To be certain, I had him make the statement again. I declined to do the work on those lines, and suggested other means.

Now the point is, is such work good or bad practice? I hold emphatically that it is very bad practice, but as I may be wrong, I want your candid opinions regarding this identical case. I would have no misgivings of my opinion regarding it, if the gentleman who recommended the work being done as stated was not a prominent man, and though I did not, nor do I now know who it was, I might be opposing someone who can teach me about bridge-work. Furthermore, I verily believe that such work as this has had much to do with the disrepute placed by many upon one of the greatest blessings, where it is indicated and properly constructed, that partially edentulous mankind can have.

Many other cases crowd themselves upon my mind, but as I said, I will confine myself to this one and ask you not to be equivocal, and if you do not endorse such practice give it as strong condemnation as I think it richly deserves, for it seems to me it is time such things should not be done.

I do not wish to be understood as posing as a critic, but rather as a student of the subject, but one having a few ideas of a pronounced character that may need revising. Yet to me, the mutilation of these teeth, in the case presented, for so little purpose, seems appalling.—*Dental Review*.

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RECIPROCITY BETWEEN THE PROVINCES.

The paper by Dr. McInnis in our last issue is sure to provoke much comment. Provincialism was never popular with the fathers of the profession. Dr. Brewster's original scheme had no thought of it. It was probably a necessary evil; there is no reason why it should not cease in the broader interests of the profession at large and the public. Quebec may bar the way for a time, but it may, too, hearken to patriotic as well as professional extension. The Editor of this Journal will retire from his chief position at the end of this volume, but he wishes to go on record as favoring reciprocity, as he favored it when he first dipped his pen into journalism, over thirty years ago. We reiterate the suggestion, however, made editorially (Vol. I. and Vol. VI.) that the Maritime Provinces and the North-western provinces should, respectively, complete some unity of legislation among themselves. Ontario is sure to go the right way, and Quebec could not sulk long and stay out in the cold.

EDITORIAL NOTES.

THERE is nothing so empty as popular or professional applause. One may work and wish for the respect and good will of his contemporaries, and sacrifice his own interests for those of posterity. But no man ever labored long and escaped the calumniator. The man who writes one article or makes one speech, does not expose himself to the criticism which is sure to follow the man who writes and speaks often. It matters not, too, whether his duties are sacred or secular, there are envious critics who wilfully misrepresent, or treacherously undermine all his good motives, and who justify the saying of Goethe that "if a man does one good thing in this world, society forms a league to prevent him doing another." Sometimes the very best and wisest have to bear the injustice of others, who are not constitutional mischief-makers, but dullards to whom their defects are an immense consolation. These "niggards of praise" are "prodigals of censure," and are never at peace until they assassinate the records and the reputations of their predecessors. It is a cheap way to establish a reputation for a time for themselves. But have you not noticed how the curses, like chickens, come home to roost, and the irony of fate convicts them of meaner and more immoral actions than those they were so eager to condemn? We present this cap for the heads of any of our critics whom it may fit. It is a great pleasure to know that a very small stock is needed.

A WELL conspired but poorly concocted plan has existed for some time in the Province of Quebec to belittle the efforts and the effects of the pioneers of the profession. When a similar venture was made in Ontario there was an explosion of indignant protests from the contemporaries of the fathers, and the class of younger men who had learned enough to know how valuable the services were for all time that were performed by the Days, the Ralyeas, the Clements, the Nelles. The "two-penny nobodies" of Quebec, having no self-respect, could have no respect for those who made the profession possible of respect. They knew little or nothing of the struggles of the fathers; they did not want to know either. They collected a great heap of incense, which they have busily burned before their own personal experiences and history, neither of which was even worthy the illumination of an ancient *rush*. But in their estimation it eclipsed the sun. The trouble is that all the strain upon imagination will make it no more brilliant than a simple rush-light.

AN old and successful practitioner once gave a young beginner a bit of advice, which has always seemed to us rude and unwise; but really there are patients to whom it has most pointed applica-

tion. We all know them. "Never, under any circumstances," said the old gentleman, "try to oblige your patients. Start in life and go on with the determination to mind your business in your own way and according to your own methods; but don't promise or do anything for anybody just to oblige them. You'll not get a particle of thanks, and ten out of twelve will think you a fool or a parasite for your pains. Conduct your practice on business, not on sentimental, principles."

EVERY honest man appreciates a certain amount of deserved praise. The people who praise you with one eye, and squint depreciation at you with the other, are mightily afraid of the words of praise being taken as honestly meant. We want none of this in public print or elsewhere, so we always take the liberty of drawing our pen through the various contributions of conventional flattery, which runs as easily as hypocrisy off the tongues and pens of these gentlemen. The expert crook is just as honorable as the polished in craft. In fact, a hypocrite is meaner than a liar. The "friend" who gushes friendly sentiments before your face, very much to your discomfort, and who never loses a chance of putting his knife in your back in an instinctive assassin. He is more dangerous than a serpent.

The Report of the Dental Association of the Province of Quebec will appear in next issue.

Reviews

The Cause and Prevention of Decay in Teeth. An investigation into the causes of the prevalence of dental caries, to which are appended some suggestions on its prevention. By J. SIM WALLACE, M.D., B.Sc., L.D.S., R.C.S., Eng. London: J. & A. Churchill, 7 Great Marlborough Street. 1900, pp. 101.

The etiology of dental caries has perplexed our wisest investigators. Its pathology is generally accepted, as well as the chemico-parasitical theory of its direct or exciting causes. The author of this thoughtful little volume summarizes his conclusions as to the problem of the liability of caries in the following words: "The cause of the prevalence of dental caries is that the natural food-stuffs are to a large extent ridded of their accompanying fibrous parts, and prepared and consumed in the manner which renders them liable to lodge, and undergo acid fermentation in the mouth; while, from the same cause and the induced conditions, the micro-organisms of the mouth lodge and multiply, and augment the rapidity and intensity of the acid fermentation."

The author coincides with the belief that the acids formed by the action of micro-organisms upon the carbo-hydrates (cellulose, starch, sugar, etc.) lodged about the teeth after meals, are the invariable origin of caries. Experimentally he proved that "cake, biscuits, bread, and especially toasted bread, are very liable to lodge from one meal to another, while raw vegetables, fruit, meat, fish," are not so apt to remain. It is a well-known fact that the teeth and gums get exercise from the physical properties of fibrous foods which demand mastication, and little or none from the starchy and saccharine non-fibrous foods; that in fact if civilization can be blamed in any way for the increase of caries, it is due, as the author insists, to "the elimination of the fibrous matter which accompany the carbo-hydrates in their natural state, and their presentation in a form which readily lodges and undergoes acid fermentation in the mouth." It may be that most of his readers will not fully agree with the conclusions at which the author arrives in discussing the causes and effects of irregularity of the teeth; yet the subject is so interestingly examined that it will well repay careful study. That irregularity and recession of the gums are predisposing causes of caries, no one dare be bold enough to deny. The author argues here that "the elimination of those fibrous food-stuffs which put the teeth to full functional activity, is conducive to the recession of the gums, and so to a condition which predisposes to caries." In the chapter on "Food-stuffs" the author describes briefly experiments which led him to his conclusions. The author, in discussing the preventive means of caries, directs attention to questions of diet; the proper construction of fillings to prevent the lodgment of food, the use and abuse of the tooth-brush, etc. We must leave further allusions to this little work, with the hope that it will have a wide sale in Canada. It could have easily been made a bulkier book, after the fashion of most of our modern dental literature, but brevity in a work of this kind is an art and an attraction in itself.