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ORIGINAL COMMUNICATIONS.

A CASE OF THIRD DENTITION.

BY H. H. NELLES, D.D.S., L.D.S., LONDON.

Some three months since, a lady of this city, aged about forty-five, called at my office to have a number of roots extracted, preparatory to the insertion of a full set of artificial dentures. As she was within a short period of her confinement, I did not encourage her to have the operation performed at the time. Subsequently, however, upon her insisting upon their removal, I extracted all the roots in the upper jaw, but not considering her a fit subject for the administration of either chloroform or nitrous oxide, I refused to complete the operation under existing circumstances.

A few days ago, she again called upon me to have the lower roots removed, when, upon examination, I found, to my astonishment, that nature had made an effort to supersede my operations, by sending forth a well-developed, superior *cuspidatus*.

As I always consider it unprofessional to interfere with the *scientific* operations of others, and as none of us, in our best efforts, can pretend to compete with nature, I concluded to give her a fair opportunity to develop a full set, and perhaps she will relieve me of any further trouble in the matter. In the mean time I will note progress and report in a future number of your journal.

THE DENTAL PROFESSION.

Read before the Dental Association of Ontario, at Hamilton, by RICH. TROTTER, *L.D.S., Guelph, Ont.*

I have chosen the dental profession as the subject of my paper, believing that a full and proper acquaintance with, and due appreciation of, its peculiar duties, connections, and relations, are of the greatest importance both to those who are immediately engaged in it, and to the public generally; because I consider that a production of this kind would be very suitable on the present occasion, and would be more interesting to a greater number of members of the Association, and which, if not very able, has, at least, the merit of being mainly original; and because I believe that one of the most essential duties we have to perform at the present time, is to inform or educate the people on the subject of Dentistry.

I do not wish to leave the impression that I consider the people of this Dominion ignorant or uninformed; not by any means; for I consider they will compare favourably with those of any other country in general intelligence. It is true I have been asked by a full-grown man what a dentist was: well, of course, I came to the conclusion that he was most decidedly not possessed of much general intelligence. That, however, was only an exception. But ours is, as far as we and our immediate forefathers are concerned, a young profession, created to a considerable extent by new necessities, and many, otherwise generally well-informed, do not duly appreciate the resources and sufficiency of the Science and Art of Dentistry to promote their health and comfort. This, I think, is mainly owing to two reasons; one is that it is only within a comparatively short period of time that so great a necessity existed, for ours being a specialty; and the other is that it is not long since dentistry has been established on a proper scientific foundation, or practised by any other than empirics, with some noble exceptions, of course. It is a fact that most dentists of experience will confirm, that there is not one-tenth of the benefit received from dentistry that there might be, and this is not owing to a want of means to pay for dental operations, so far as the people are concerned, but because through unskilled and defective treatment they have lost confidence in it, and because they have not yet got into the habit of looking upon early and continued attention to the teeth as a necessity for their health, comfort, and longevity. You may go into hundreds of large families, especially in rural districts, where, perhaps, they build fine houses, add farm to farm, dress expensively and fashionably, and live luxuriously, and yet pay no attention to the teeth unless

they are compelled by pain to have them extracted. The consequence is that before the younger members of such families arrive at the age of twenty, their teeth are a mass of corruption and decay, and have to be removed and replaced by artificial ones; when if they had been properly and regularly attended to by a skilful and honest dentist, with the necessary cleansing, they might have been preserved till an advanced age, and their constitutions saved from the injurious effects which always follow much suffering and disease from dental caries.

The question may be asked what is to be done to obviate this state of things. I would say, inform the people in matters pertaining to the well-being of the truth, through the medium of the press, popular essays on Dentistry, &c., and, above all, turn out none but honest and competent dentists, who will perform successful and skilful operations. Therefore the condition of the profession in Canada has been unfavourable to its efficiency.

There has been no regular system of Dental Education, and I am sorry to say that some of the older members, irrespective of the interests of the profession or that of the public, have made the manufacture of dentists, in a few months, for an important pecuniary consideration, an important branch of their business, to the great discredit of the profession, and injury to the public. But a better state of things has dawned upon us. We have now, by means of association, established a professional sentiment, and no dentist, claiming any respectability as a practitioner, will act contrary to what is considered proper professional conduct; and we have now the authority and power to require that all desiring to enter the profession, be qualified by a proper education and training; and upon this Association and the Dental Board of examiners rests the responsibility of the future elevation and prosperity of our calling.

If we be true to our position by creating and maintaining a proper professional sentiment, and requiring all to possess integrity and knowledge before undertaking the practice of dentistry, our success is certain, the profession will be elevated, and the public will be greatly benefitted.— While I am prepared to cordially extend all due credit to those who have been prominent in the efforts that have been made for our advancement, I most sincerely regret that the old man, Adam, has shown himself as much as he has. Selfishness, the great bane and curse of humanity, that ruthless monster, which has robbed the widow and the orphan; which has caused rivers of human blood to flow; which has prostituted, in many instances, God's own institution on earth, the Church; produced anarchy and confusion in the state, and caused miseries which no man could number, has obtained a little too much. For the interest of the profession,

it is of the greatest importance that every member, in future, will put aside all selfishness, jealousies, desire to utilize public functions for private benefit, and undue ambition to be distinguished above his brother, and that all, cordially and earnestly, both in a private and public capacity, endeavour to advance the interests of his profession. "Union is strength," and in order to maintain that element in our ranks, it is absolutely necessary that the few having control of the interests of the many, make no arbitrary or unjust aggressions on their rights, because if they do, resistance, disunion, and discord will surely arise, on the proper grounds that the Anglo-Saxon feels it to be not only a privilege, but a duty, to protect that which he obtained by the *Magna Charta*, and which he has cherished ever since.

In commencing this paper, Mr. President, I thought I would give a short history of Dentistry, but I found that I had not the resources at hand to do so, as my dental library, in combination with the earnings of twelve year's practice, pharmacologically or chemically speaking, were precipitated in the shape of ashes, not long since; besides I considered that anything like an elaborate history of dentistry, would make the article too long for an occasion of this kind. But I will, if it does not weary your patience too much, concisely sketch the progress of the Dental Art with the view of placing before you our position as a co-ordinate branch of the healing art. Like many other arts the origin of the practice of medicine is involved in obscurity. At a very early age the power to heal the sick, mitigate the pangs of suffering humanity, and stand between disease and death was considered a high attribute.

The ancients, who attached more importance to mythological than natural causes, impersonated medicine in Apollo and Esculapius, and thus its early history has been mixed up with mythology and poetry. Mankind has always, since the fall, been liable to pain and disease, but not nearly so much so in the state of primitive society as they have been since the advancement of civilization.

As they abandoned their more simple habits of living, for idleness, luxury, and vice, disease increased, and with it the need of the physician, and, according to Herodotus, there was a subdivision of medical science, and no practitioner was allowed to practice any but his own branch.

Thus, some were oculists, others attended to diseases of the head, and others to those of the teeth.

Many circumstances might be enumerated to show that dentistry enjoyed as large a share of the attention of the ancients as did any other branch of the healing art. Belzoni, and others, discovered manufactured teeth in the Sarcophagus of the Egyptians, but I question if they were as

good as those manufactured by S. S. White and other American manufacturers. The Egyptians also stopped teeth with gold, as proved by the mummies from Thebes. We have also historical evidence that the Greeks and the Romans paid considerable attention to diseases of the teeth, and the wearing of artificial teeth formed the subject of satire for some of the Poets.

Having shown the autobiography of our profession I will not attempt to treat of its progress down to the present time, in an elaborate way; suffice it to say that the dental science can not only claim antiquity, but that it has kept pace with the march of science. Not only so, it has made greater strides of advancement during the last half century, than any other.

Although we can claim antiquity in connection with our calling, yet as I have before said, we are, in many respects, a young profession, for the reasons that I have already stated.

To our cousins, to the south of us, we must, in honesty, give the credit of doing more to advance the science and art of dentistry than any other people.

While this may be attributable in a great degree to the energy of character, ingeniousness, and practical turn of mind which characterizes Brother Jonathan; it may also be attributed to the much greater necessity that exists among them for dentistry being a distinct branch of professional science, than has existed among their forefathers; and true to their flexibility of character they have adapted themselves to circumstances. What dentist of experience on this continent has not observed that the dental organization of to-day is not inferior to that of former years? The causes of this difference I will not attempt to give on this occasion, deeming it of sufficient importance for another paper, and of sufficient importance to call for the particular attention of every parent, and medical and dental practitioner; believing as I do that there is something seriously wrong when organs playing such an important part in the animal economy fail so prematurely.

How common and how sad it is to see our rising generation, from infancy, almost continually suffering, and their constitutions shattered in consequence of a defective and abnormal dental organization.

After a good many years experience and observation in dental practice, I have been led to the conclusion, that there is not one person in fifty in this country, whose dental organs are in a healthy and normal state. Some may talk lightly of our profession and consider us only tooth-pullers, but I feel that the field of our labour affords as ample a scope for benefiting our fellow-creatures as that of any other profession. The human

system is often compared to a machine. Now it is well known that if a cog or a wheel, or any other essential part of a machine, becomes deranged, the whole is sure to suffer. So it is with the human system: if any organ or organs become deranged, the whole is likely to be affected. And when we consider that at the present time it is only an exception to find a person whose dental organs are in a healthy condition, we must arrive at the conclusion, considering the primary causes and ultimate effects of such a state of things, that our people are degenerating physically. These reflections, and the fact that it is our especial province to point out and ameliorate what is wrong, is sufficient to convince any sensible person that we have an important duty to perform, and that as a profession, we are indispensable; unlike our noble sister profession, the medical, we, perhaps, never have directly to step in between life and death, and therefore, in that respect, are not so important. But it is a question with me, if our sphere of operation does not afford us power and opportunities to promote the health and comfort of the people to as great an extent as theirs do, and if we can be the means of rectifying the present degenerated condition of the organs which we profess to treat, and prevent human suffering, we will be worthy of the title of Licentiates of the Royal College of Dental Surgeons. The opinion of a gallant knight, to the contrary, notwithstanding.

Dentistry, to a considerable extent, is a mechanical profession. But to be a useful and efficient dentist implies a great deal more than to be able to perform well the necessary manipulations, although that requires a great deal of knowledge, tact, and experience. Dentists, to be useful, and to command respect and influence, should possess general intelligence, and a liberal education, and be fitted to act the part of gentlemen with the public and their patients. This is necessary not only for the credit and interest of the profession, but also for the people. A large portion of dentists' patients are persons of intelligence, taste, and refinement, and if the dentist does not possess these qualities, which command respect from such, he will not obtain that full confidence in his professional capacity which is necessary for the successful practitioner; besides their professional acquirements, which ought to embrace all the collateral sciences, which are indispensably necessary for the efficient practitioner, viz., Anatomy, Physiology, Pathology, Therapeutics, Chemistry, and Metallurgy. It may be asked by some who look upon dentistry as a purely mechanical calling, why we need a knowledge of all these sciences. I would answer, that a knowledge of the structure and function of organs lies at the very foundation of our ability to prevent disease, and cure them when out of order. So it is with Pathology, if we do not comprehend the nature

of diseased action, in combatting it, we work in the dark, and are as liable to fail as succeed. And if we are not informed as to the therapeutical action of the remedial agents, which science and experience has produced, how are we to use them intelligently? Chemistry, too: as Logarithms are to the mathematician, so is it to dental science. It is, in fact, the fundamental element of dental knowledge. It is by the light of Chemistry that we determine the nature and causes of defective dental organizations, and the means necessary to be used in order to produce healthy and normal tissue, and it is by it that we are enabled to prevent and neutralize the action of those agents which act so destructively on the teeth.

As to Metallurgy, the reasons why the scientific and practical Dentist should be well informed on that branch of knowledge, are too obvious to need any remarks.

The object and end of our individual and associated efforts ought to be to raise our status, to give professional skill its rightful pre-eminence, and to crush that charlatanism which has, in too many instances, succeeded in preying upon the public health and purse, under the pretended knowledge of the theory and practice of dentistry.

To effect this we must follow the example of our neighbours across the lines, by throwing aside small jealousies and invidious distinctions, and allow a free communication of ideas among the members of the profession; which has, among them, brought to a successful accomplishment, the work of establishing associations for the protection and furtherance of the common interest. As I have intimated, we in this country have not had the standing of a recognized profession, neither have we had any common link to bind us together for the advancement of the dental art. Each member has done the best he could to further his own ends, and too often has viewed the exertions of his brotherhood through a contracted medium, if not with jealous feelings of envious rivalry.

As our profession has been put on a different footing, we ought no longer to fear the wholesome competition that is seen to arise from its elevation.

I did think of defining the principles of action which ought to guide us in our relations with one another and our sister profession at home, and in our private practice, but when I got this far, I felt that my paper was already too long. I will, therefore, only say that the principle which should guide one gentleman in his actions towards another, ought to be the rule of conduct which should guide us in our actions with our fellow practitioners.

TREATMENT OF SIMPLE CAVITIES.

BY. W. H. WAITE, D.D.S., LIVERPOOL, ENGLAND.

By "Simple Cavities" we understand those only which involve no encroachment on the pulp cavity of the tooth. They may occur in every conceivable situation, but are most commonly found upon the approximal surfaces of front teeth, and the masticating surfaces of back teeth. For successful treatment, three principal considerations are essential.

1st. Freedom of access. This is to be obtained by wedging, either with india rubber or wood, the latter being probably better of the two, or by filing, or the use of the chisel, according to the position and nature of the cavity. Access should be clear enough to permit the operator to see every portion of the cavity, either directly or with the mirror, and also to allow of the excavator and plugger touching the whole floor and sides of the cavity to any extent which may be desired. Whatever is necessary to afford such access ought not to be spared, either out of respect to the appearance of the tooth or the feelings of the patient—since if the cavity is worth filling at all, it is certainly worth doing in the best possible manner.

2ndly. Strong walls. These are most difficult to secure in front teeth, and it is often necessary to sacrifice some amount of substance in order to obtain sufficient strength for thoroughly condensing the gold against. If this point be overlooked in preparing the cavity it is pretty sure to thrust its importance forward upon the operator's attention during the introduction of the gold, probably by the giving way of the outer or inner wall of the enamel, disfiguring the contour of the tooth, and rendering the operation highly unsatisfactory to operator and patient.

3rdly. Good retaining points. If adhesive gold is employed, these should consist of two or more small holes drilled in opposite sides of the cavity, and they should be filled as solidly as possible. If non-adhesive gold is used, the shape of the cavity should be such as securely to retain the filling after its introduction. In approximal cavities the sides should be parallel, and the upper and lower surfaces slightly undercut. In cylindrical cavities the walls should be as nearly even as possible, slightly undercut beneath the enamel.

These precautions are indispensable to proper preparation of simple cavities; in these we most frequently come upon sensitive dentine, the remedies for which are, creosote and tannin, creosote and chalk, chloride of zinc, &c., &c.

Time, labour and care spent in forming the cavity, will be repaid with interest, by facility of introducing the filling, and by the character of the operation when completed.

SENSITIVE DENTINE.

BY R. A. ALLOWAY, D.D.S., MONTREAL.

Sensitive Dentine, properly speaking, is a diseased condition of that part of the tooth, and is either brought about by some pathological change, derangement, or external injury; and whenever we have any of the above metamorphosis in the healthy condition of dentine, there is as a natural consequence, hyper sensitiveness, which, if not removed, will cause, under our physiological law of conduction of nerve force, toothache, ultimately under the law of radiation or reflection, producing facial neuralgia through the media of the fifth and seventh pair of nerves, which last condition very often results from the carelessness of the practitioner, or probably, more often, from negligence of the patient.

Now that we have arrived at some clue to the cause of the disease, our next duty is to draw attention to the removal of that cause if possible, and if not, to the disagreeable consequences issuing therefrom.

Remedies at the present time are so numerous and different in their after results, that it is very difficult indeed to say with sincerity, "that ours is *the specific*." And if such a conclusion could be possibly arrived at by the ardent researches of the members of our profession, it would tend in a great measure to obviate much of the sufferings of our patients, render the operations less disagreeable, and lastly to bring about a more successful result in the end. A question often asked us by our patients is, "why is it my teeth are so sensitive." Our answer, in many cases, is not at all satisfactory to him. He will persist in telling you the nerve of his tooth is exposed, and shudders at the idea of having you "dig at his tooth," (as he calls it,) by which you rake up a new nerve at each cut of the excavator.

There is no doubt that this sensation is caused by conduction along the nerve filaments, radiating from the pulp cavity, into and between the tubuli, which is of course affected primarily by the continued shocks of the instrument upon the part.

Some of our most eminent authors on this subject, as for instance, Dr. C. A. Harris, say: This acute sensitiveness is due to the presence of nerve fibres. Also, Dr. Maynard and Professor Johnston, whose micro-

scopical researches demonstrated the fact that nerve filaments constitute an essential element of dentine, and Mr. Tomes goes so far as to say that their is nothing more easily demonstrated than the existence of dental fibril, in any tooth that has recently been extracted. Contrary to this, Dr. McQuillen, in his report to the American Dental Association on Dental Physiology, says, "in experiments concerning the existence of these dental fibrils, I cannot truly say I am able to support the supposition."

In the treatment of this disease arsenic is the universal favourite, but those who decide to use it should be very careful on account of the bad results which follow it. A host of other remedies, but each in turn are questionable as regards their efficacy. Arsenic is without doubt considered in our profession *the* specific remedy, but for all that it is a medicine I would caution all practitioners against. I have seen it used, and have used it myself in many cases; in many of which I have seen the most serious results following, especially in young patients. The practice of some operators in using it for very slight and uncalled for case is absolutely absurd. The best, and from which we get the most satisfactory results, are creosote, tannic acid, chloroform, and sulphate of morphia; also chromic acid I have found serviceable, but it must be applied in its dry state, as in solution it would produce discoloration of the tooth, which is its principal objection. Creosote, tannic acid, and sulphate of morphia can be applied separately without any danger whatever, but must be sealed with a temporary filling to prevent the action of the secretions of the mouth; it should also be placed in direct contact with all parts of the sensitive dentine, and allowed to remain for the period of three or four days.

PROCEEDINGS OF DENTAL SOCIETIES.

PROCEEDINGS OF THE DENTAL ASSOCIATION OF ONTARIO, AT HAMILTON.

BY R. G. TROTTER, I.D.S., COR. SEC.

15th July, 1868. *Evening Session.*

Mr. J. O'Donnell, President, in the chair.

J. S. Scott moved, seconded by J. H. Bryant, that George J. Potts, M.D., of Belleville, having been the first to recognize this Association, by inviting it to send delegates to a meeting of the Medical Alumni

Association of Victoria University, at Toronto, last fall, be elected an Honorary Member of this Association.—Carried unanimously.

Moved by R. Trotter, of Guelph, seconded by W. H. Porter, of Holland Landing, that whereas by “an Act respecting Dentistry,” a provisional Board of Trustees was appointed by the Legislature of Ontario; and whereas, by that Act “all persons being British subjects by birth or naturalization, who have been constantly engaged for five years and upwards in an established office practice next preceeding the passing of this Act, in the practice of the profession of Dentistry, shall upon proof of having been so engaged, and upon payment of the fees authorized by the said provisional Board, be entitled to a certificate of license to practice Dentistry. And whereas said Act required a regular Board of Directors to be elected on the second of June last,—and the persons qualified to vote at said election were those who had complied with the provisions aforesaid, and paid the fees as fixed by the provisional Board, and had received a certificate of license, at least one month before said election—and whereas, some forty dentists complied with the requirements of the Act aforesaid, and paid the fees at least one month before said election; and whereas the provisional Board, we have reason to believe, having failed to meet and grant licenses one month before said election, thereby depriving said electors of their franchise, in the election of directors; and whereas they met on the second of June, and, contrary to the spirit of the Act, elected themselves,—therefore it is resolved by this Association that the course adopted by the provisional Board, in depriving qualified dentists of their right to vote in the election of directors, was, to say the least of it, contrary to the spirit of the Act respecting Dentistry, an injustice to the profession, and highly discreditable to themselves.

After a lengthy discussion, the members of the Board present, stated, that now that the matter had been fully discussed, they did not object to the passing of the resolution, when it was carried unanimously.

July 16th, 1868.

Association met at 9 A.M. Present: J. O'Donnell, L.D.S., President, and twenty-three members. The following were appointed a Standing Committee on Grievances, to whom was referred the application of C. Cartwright, for membership, viz., Messrs. Lemon, Scott, and J. F. Kennedy, of Perth, who recommended that Mr. Cartwright's name be placed upon the list of applicants for one year, he not being sufficiently known to warrant his election, and that he be entitled to all the privileges

of membership, except voting.—Report adopted, in which Mr. Cartwright concurred.

Mr. J. S. Scott read a letter from Dr. B. T. Whitney, of Buffalo, N.Y., an honorary member of the Association.—Received, and a vote of thanks extended to the writer.

Also a letter from G. V. N. Relyea, of Belleville, inviting the Association to meet in that town.—Received and filed.

A discussion followed on the premature decay of the teeth, in which Messrs. Callander, Clements, and Chittenden took part.

A. C. Campbell, of Brooklyn, was elected a member of the Association.

C. S. Chittenden moved, seconded by F. G. Callander, that the thanks of this Association be extended to the proprietor of the Royal Hotel, Hamilton, for the use of his spacious dining-parlor, and for courtesy to members of the Association.

Also to the Grand Trunk and Great Western Railway Companies for their kindness in granting return tickets, at one fare, to the dentists attending this meeting.—Carried.

J. H. Bryant moved, seconded by Robert Reid, that the Recording Secretary be requested to forward a copy of the resolution passed at the last session, disapproving of show-cases of Mechanical Dentistry being exhibited at the door of an office, to any dentist not complying therewith.—Carried.

Mr. E. Snider moved, seconded by F. G. Callander, that D. A. Bogart, L. Clements, and J. H. Bryant, be requested to read papers at the next meeting.—Carried.

F. G. Callander moved, seconded by M. E. Snider, that J. O'Donnell, J. S. Scott, and W. C. Adams, be appointed to perform Clinics at the next session.—Carried.

Charles Kahn, Stratford, stated that the mover of the resolution fixing London for the next annual meeting, desires that the motion should be reconsidered.

L. Clements moved, seconded by D. A. Bogart, that resolution No. 24 be rescinded, and that the next annual meeting be held at Belleville,—leaving the January meeting at Toronto, as before decided.—Carried.

C. S. Chittenden moved, seconded by J. S. Scott, that C. H. Hubbard, Esq., be elected an honorary member of the Association.—Carried.

The Association then adjourned.

PROCEEDINGS OF THE DENTAL ASSOCIATION
OF QUEBEC.

On the 2nd instant, a meeting of Montreal Dentists was held in this city to form the nucleus of a Dental Association for the Province of Quebec. The meeting was hastily called together, as it was desirable to have the presence of Dr. Scott, Secretary of the Dental Association of Ontario, who happened to be attending the convention of the Canada Medical Association, then in session in our city. It was felt that Dr. Scott could explain the *modus operandi* of the movement in Ontario, and by his knowledge of the particulars of that movement, materially assist in smoothing the difficulties in the path of a new organization.

The following Dentists were present.—A. Bernard, C. F. F. Trestler, M.D., C. Brewster, J. A. Bazin, R. A. Alloway, R. W. Cantwell, J. S. Scott, W. G. Beers. Dr. G. J. Potts, of Belleville, Secretary of the Medical Alumni Association of Victoria University, was also present. Prof. Berryman, of Toronto, and Dr. G. W. Boulter, M.P.P., of Stirling, hon. members of the Dental Association of Ontario, sent apologies for their absence, as it was their intention to have been present, but for duties in connection with the Medical Association.

Dr. Bernard was appointed Chairman, W. G. Beers, Secretary.

The Chairman briefly stated the objects of the meeting, viz., to organize a Dental Association for the Province of Quebec, with objects and intents similar to that of Ontario.

Resolutions were then passed favouring the project, and that a convention of Dentists in the Province should be held in Montreal on the 17th instant, to consider and adopt a constitution and by-laws, an act of incorporation, &c. A committee was appointed to draft a constitution and by-laws and act of incorporation; and a provisional board of officers elected.

A resolution was passed, thanking Dr. Scott for his timely and valued assistance in organizing the Association, and the meeting adjourned to meet on the 17th instant.

September 17th. 1854

The meeting of Dentists in the Province of Quebec was held this afternoon.

PRESENT :—Messrs. Bernard, Trestler, Brewster, Leblanc, Bazin, Belle, Webster, Alloway, Valois, Nichols, Beers, of Montreal, McKee, of Quebec; Lefave, of St. Johns; Dowlin, of Sherbrooke; Brodeur, of St. Hyacinthe.

Apologies for absence were received from Drs. Baillargeon, of Quebec, and Bowker, of Montreal.

In absence of Dr. Bernard, Mr. Brewster took the chair and explained the objects of the convention.

A verbal report was made concerning the non-appearance of the proposed constitution and by-laws, the committee being disappointed in reception of the Constitution of Dental Association of Ontario, which it was thought advisable to have for inspection.

The minutes of last meeting were read and approved of.

It was then proposed by Dr. Trestler, seconded by Dr. Lefavre, that the election of officers for the present year be now proceeded with.

The following officers were then elected:—A. Bernard, President, Montreal; Baillargeon, M. D., 1st Vice-President, Quebec; C. F. F. Trestler, M.D., 2nd Vice-President, Montreal; W. G. Beers, Secretary, Montreal; C. Brewster, Treasurer, Montreal; J. A. Bazin, Librarian, Montreal.

Executive Committee.—H. M. Bowker, Montreal; McKee, Quebec; Lefavre, St. Johns; Webster, Montreal; Fiske, Waterloo; Leblanc, Montreal.

The Secretary read the Ontario Act respecting Dentistry, by request of the Chairman. One objection was made to the clause in article 12, making "naturalization" compulsory.

Mr. Dowlin said he was an American, and having settled in Canada, was quite willing to be naturalized, and was in favour of the clause. The feeling of the meeting was that it should form part of the Quebec Act.

It was then moved by J. A. Bazin, seconded by H. Davis, and resolved, that the committee appointed at last meeting on constitution and by-laws be discharged, and that the executive committee, with the other officers, be instructed to draft a constitution and by-laws for this Association, and an Act of Incorporation, to be printed in English and French, and furnished to the members for their consideration.

Moved by C. F. F. Trestler, seconded by J. H. Webster, and resolved, that copies of the proposed constitution and by-laws and act of incorporation, be furnished to every member of the Association 20 days prior to the next meeting.

Moved by C. Brewster, seconded by — McKee, and resolved, that the President and Secretary be empowered to make application to the Local Legislature for an Act of Incorporation for this Association.

Moved by J. A. Bazin, seconded by E. Lefavre, and resolved, that the entrance fee for active members be \$5; for incipient members \$3.

Moved by J. H. Webster, seconded by N. Fiske, and resolved, that the next meeting of this Association take place on 28th of October, at 7 o'clock.

Dr. Bernard extended an invitation to the members to hold the next meeting at his residence, 1002 St. Catherine street, corner of Metcalf, which was unanimously accepted.

It was understood that the office-bearers should meet on the 28th inst. to prepare a constitution and by-laws and an Act of Incorporation.

Before adjourning, Dr. Bernard requested leave to say a few words. During an experience of 35 years in Dentistry, he was more convinced than ever of the necessity for association, and the great boon to be derived therefrom. He would have been pleased to have seen some other member appointed to the position of President, owing to the numerous claims upon his time; but he would cheerfully co-operate in any way to further the objects for which the Association was organized. He was much pleased at the unanimity which characterized the meeting; trusted the members would often meet for practical discussion, and that this Association would be the means of benefiting its members individually, and the community at large.

The meeting then adjourned, to meet at Dr. Bernard's residence on the 28th of October.

NOTES FROM THE PROCEEDINGS OF DENTAL SOCIETIES.—*Maryland State Dental Society, May 28th.*—Dr. E. P. Keech called attention to an anomalous case which had recently come under his notice. It was that of a young girl, about twelve years old, in whose mouth the two temporary superior central incisors, were replaced by two teeth, which, in size and shape, closely resembled the third molars or wisdom teeth. Dr. K. exhibited the teeth, and a plaster cast of the mouth, taken before they were extracted.

The propositions of Dr. Arthur, (see first number of C. J. D. S.,) were then taken up, and after some discussion, the first proposition was changed to read as follows:—

1. That caries of the teeth of the majority of children of the better classes of people in the United States at the present day, will certainly occur, sooner or later, on proximate surfaces of all the teeth, except the inferior incisors.

A vote was then taken by yeas and nays on each proposition, separately, and resulted in their unanimous endorsement by the members present, except the last proposition, which was laid over until the next meeting.—*American Journal Dental Science.*

AMERICAN DENTAL SOCIETY.--*Niagara Falls, July 28th.*—Dr. Westcott, Syracuse, described his means of regulating an upper and under set of teeth, of which casts were presented. He said the first effort to move a tooth should be very slight, for then more could be done at the second effort with less pain. Neither spring nor elastic substances should be used if it were possible to avoid them; and to the almost exclusive use of wooden wedges, in the present case, did he attribute the absence of inflammation, notwithstanding the great extent of the movements attained. Preferred not to use a plate; but where that was unavoidable, it should be dispensed with at the earliest possible moment. Made it a rule to obtain the lateral movements first, and finish that, before beginning the longitudinal movements. Where teeth are so short as to make it difficult to get hold of them, he drilled into them, and insert a gold screw or staple by which to make attachments. Any ill effects of any regulating apparatus, upon the substance of the teeth, might be obviated by removing the plate and cleaning it after each meal, cleansing the teeth and rinsing the mouth with soda water.

Dr. Ringsley presented several improvements designed to remedy defects congenital or acquired, in the hard or soft palate. He distinguished between congenital and accidental deformities. Patients suffering from the former require months, and sometimes years, to overcome the difficulties of articulation, while in accidental lesions, not only is the appliance much more simple in its character, but the results are attained immediately on its introduction.

He exhibited his instruments, and also his moulds, describing the various processes of manipulating. Dr. Bogue, from the standing Committee on Dental Pathology and Surgery, recapitulated the points which, in this department, had attracted special attention during the year. The question of the contents of the dentinal tubuli; of the efforts of the dental pulp to protect itself from the approach of decay by the consideration of the intervening dentinal tissue; and the results of recent efforts for the preservation of exposed pulps. He inferred that the pulp is as capable of reparative processes as other vascular structures. Salivary calculus was treated as a direct source of injury, and its perfect removal necessary, to be followed by an application of escharotics to induce renewed action of the peridental membrane. In the treatment of epulis, an apparent extirpation was not deemed sufficient, but a removal of the surrounding healthy tissue was demanded, to be followed by thorough cauterization.

Dr. J. S. Dodge, jun., referred to certain dark-colored nodules found upon the roots of teeth, and even upon their extreme ends. He could not agree with the common opinion which considered these to be depo-

sits of a calcareous nature from the saliva; there was no practical limit to the deposit of tartar upon the exposed portions of the tooth, but it was confined to the border of the gums, and was of a light colour. Black nodular deposits were never found but on the roots of teeth, under the soft parts, and never in large masses, and their tendency was to work to the apex of the fang. Some other source must be found for them than that of deposit from the saliva. He had tried to make microscopical sections of them, which, from their size and formation, was difficult, but in two instances he had partially succeeded. The whole mass was composed of very regular concentric layers of accumulations, in aggregated spheres, not similar to any organic forms in the body. So much had been seen: his conclusion was, that these nodular masses were deposits of calcareous matter similar to those thrown out by the periosteum for the formation of bone, but being in a diseased condition, the process was merely carried so far as to form aggregations on the surface.

Dr. Atkinson had never seen such a deposit, except where it had advanced, as tartar does, on the recession of the gums; and even where the gum and peridontium were disconnected from the tooth to such a degree as to loosen it, he would not despair of restoring the original attachment. His process was to thoroughly remove every portion of the deposit, whatever its character, not being at all fearful of cutting into the substance of the cementum, wash clean, and inject once thoroughly, with a hypodermic syringe, a solution of chloride of zinc. This treatment he would pursue, not merely for nodular deposits, but also for rings below the margin of the gums. He remarked that it was questionable whether hard tissues once fully formed undergo any change.

Dr. C. R. Butler inquired how Dr. A. got at the end of the root for deposits at that point.

Dr. Atkinson replied that he followed up the open channel, whether by the side of the tooth or a fistulous opening through the alveolus, and rasped off the end of the root, never disturbing the connection between the soft parts and the tooth, at its neck, when that was intact.

Dr. Butler had never seen the accumulations spoken of on roots where the periosteum was intact, but found it common on the parts denuded. When he deemed amputation admissible he would have no fear of disturbing the alveolus, unless the condition of the patient forbade any operation whatever, but would clip off the apex of the root in whatever manner was most convenient.

Dr. Bogue alluded to cases coming under his observation directly from other practitioners, who pronounced the teeth free from tartar; yet the teeth would be lost if left as they were. The only indication in these

instances was a redness of the margins of the gums, and he found always that the alveolus was absorbed and the periosteum detached. He had never practised the amputation of the end of the root, but had succeeded in removing the nodules after repeated effort, and then made mildly escharotic applications.

Dr. H. Judd said it must be conceded that the origin of these masses is either from inflammatory action or by deposit from the saliva. In the latter case there must be external communication, and in recalling instances to mind they supported this hypothesis. Carbonate of lime, when mixed with fatty substances, forms in globular masses.

Dr. McClelland was of the opinion that deposits from the saliva would be found where that secretion was most abundant; it being found under the gum was conclusive evidence to him that it was thrown out by the periodental membrane.

Dr. McQuillen agreed with the opinion that tartar could not be deposited without an external opening. Referring to the intimation of a doubt whether the hard tissues could undergo change, he said that there was no tissue in the animal or vegetable kingdom, with the possible exception of the enamel, which does not undergo continual change. Have not the investigations and experiments of Hunter, Duhamel, and others proved this most conclusively? Dr. Licnel S. Beale was the first to take exception to the general view relative to changes in hard tissues, and the speaker combated his statement several years ago. He cited, in proof of constant change, the formation of the frontal, sphenoidal, and maxillary sinuses, the diploe in the flat bones, and medullary canals in the long bones, and the process by which the deciduous teeth, after being built up cell by cell, at the proper time, by a retrograde metamorphosis, are absorbed cell by cell. In the permanent teeth the evidences of change were constantly occurring—as in hypertrophy of the cementum, and the not infrequent absorption of the cementum and dentine in other cases. Permanent teeth extremely soft in early life become almost as hard as flint at a more advanced age. Again, teeth which had been quite dense and perfect in their structure, as in the case of females, after the commencement of the maternal functions lose much of their former hardness, owing to the waste constantly going on not being supplied by a sufficient amount of material to meet the demands of mother and child; in which case the latter is nourished at the expense of the former, and the mother's bones and teeth become softened.

Dr. John Allen urged the necessity of providing in the food materials which should supply, atom by atom, the wants of the system. He asserted that, as a nation, Americans have the worst teeth of any people,

because they change the proper proportions of the constituents of the food; while in countries where this is not done, the people retain their teeth, sound and beautiful, to old age. To show the gigantic scale on which we do this, he said that from every barrel of superfine flour, 40 pounds of mineral matter were rejected in the process of manufacture; and, allowing half a barrel of flour as the yearly allowance of a child, every child is deprived of 20 pounds per annum of the material most necessary for perfecting the osseous structure of the body, making an aggregate loss to the system, in twenty years, of 400 pounds.

Dr. Atkinson said the whole philosophy of filling teeth depended on the assumption of the durability of their structure. He delights in putting things into the teeth that irritate them. Without irritation there could be no nourishment: the similarity or dissimilarity of the irritation, produced by remedies or food, to that required by the organism determined the ascendancy of health or disease. The rule had been that when the pulp of a tooth became exposed it should be devitalized and removed, and the root filled to its end. He asserted that a man was weak or wicked who would wilfully destroy a tooth pulp; all that was necessary was to use an agent which would coagulate the albuminous surface of the exposed pulp, and the subsequent operations were certain to be successful. His practice was to cover the exposed pulp with creosote, upon which he dropped the oxychloride of zinc in a plastic condition; when this had hardened, he proceeded to remove the excess of the material and fill the cavity as usual with gold. If the inflammation had gone on to suppuration, he would fill temporarily. Suppuration is the production of pus, and pus is a fluid composed of serum and white corpuscles deprived of their vitality. All the tissues of the body are made up of corpuscles, the white forming the nerve tissues; the red, the muscles. Cohnheim had seen the corpuscles pass through the walls of the capillaries,

Dr. B. T. Spellman said that he did not understand the white corpuscles to be a component of pus, but that their character was changed by diseased contact. He had heard, from many witnesses, that the treatment of exposed pulps just detailed was in their experience productive of much pain, and therefore he considered it bad practice.

Dr. McQuillen said pus was regarded, by the best authority in surgery, as a fluid, composed of dead exudation corpuscles floating in serum, these exudation cells, in their normal condition, being the tissue builders. It was impossible that white corpuscles could pass through the walls of vessels to be incorporated in the structure of nerve tissues. He had been accustomed for years to demonstrate to his students the circulation of the blood in the frog's foot, tongue, lungs, and in the mesentery, and had

watched the process by hours, and had yet to see the phenomenon referred to. Admitting Cohnheim's observations to be correct (which he was not disposed to do), the propriety of drawing deductions from pathology to sustain physiological theories was a very defective and illogical method of reasoning. The number of persons who had seen ultimate nerve fibres was exceedingly limited. Only those who had employed the higher magnifying powers could lay claim to this distinction. The corpuscles rolling through the capillaries might appear to pass through the sides of the vessels, but it was only an ocular deception. The caliber of an ultimate nerve fibre was infinitesimally smaller than that of a white corpuscle, and, in addition, it was made up of three distinct structures, the neurilemma, the white substance of Schwann, and the axis cylinder. How, then, can a corpuscle make up such a nerve fibre? The same objection held good with respect to muscles being formed from the red corpuscles. The ultimate muscular fibrillæ (which consists of the myolemma, a membranous sheath inclosing the sarcois elements) is much more minute than the red particles of the blood. Many years ago similar views to those presented here were advanced by Doellenger and Dutrochet, and their fallacy was then exposed. The perfection at which microscopy has arrived, and the use of good instruments, enable us, by comparing with precision the size of different parts, to completely refute this untenable theory.

Dr. Wetherbee stated that, two years ago, when he spoke of the use of the oxychloride for capping pulps, Dr. Atkinson expressed his doubt of its adaptability. He gave his experience in a number of cases where he had succeeded in its use. Frequently there was pain for a short time, but without subsequent uneasiness. He does not consider the pain dangerous, or the material in any manner endangering to the pulp; it acts as an astringent. Two cases in which the pulps bled, two years ago, now have all the indications of living structures.

Dr. J. S. Dodge, junr., said, if the effort to preserve exposed pulps were any new thing that had not been tried heretofore, he would go home to try it with a good deal of zeal. But this was not the case; it had been a favourite practice years ago with the old practitioners, and when he commenced his practice he was somewhat enthusiastic about it, though even then the old men had begun to shake their heads about it, and since that they had been shaking them harder and harder, until the operation of filling over exposed dental pulps had gone out of date. Now a new material was coming into fashion, it appeared, for the same purpose, the oxychloride of zinc. Put this in a sensitive tooth and it would cause severe pain, and its effects upon an exposed pulp, he believed, would be ultimately to destroy it.

Dr. Allport said that exactly what proportion of exposed pulps could be preserved by any method could only be stated after the comparison of a large number of recorded cases. After the explosion of the theories of Harris, those who enunciated any method of saving pulps were looked at with a quizzical glance. He then referred to the operation which he had introduced, consisting of an excision of a portion of the exposed pulp, which was relieved of congestion by the consequent bleeding, leaving flaps to come together and heal by first intention—admittedly a very difficult operation—and claimed that he had by that method saved a large number of teeth, and obtained a new calcareous deposit at the point of exposure.

The treatment prescribed by Dr. Harris gave the pulp the best possible chance to inflame and suppurate, by leaving a space between it and the cap. He would have gentlemen not deny what they had not tried; he had not used the oxychloride, and knew nothing about it, but half believed what had been said about it to be true. He believed there was something living in the pulp. Kölliker, years since, said the dentinal tube or canal was an elongation of the dentinal cell resting on the pulp. In a recent work he reiterates this, and says this is the channel through which the calcareous mass is deposited, and this would account for the increased density of portions of dentine near points of decay.

Dr. Wetherbee, in answer to a question, qualified his previous statements as referring to pulps simply exposed, not inflamed. He said that no large amount of oxychloride should be allowed to remain in the tooth longer than a few weeks, as the free acid in the preparation would act most injuriously upon the substance of the tooth.

Dr. A. W. Freeman said he had obtained as good results as that with Hill's stopping.

Dr. Kennicott thought misunderstanding arose from some attributing a medicinal virtue to the material under consideration, whereas he considered any good resulting from its use to be due to mechanical causes. No sensible man would proceed to fill permanently over an exposed pulp until he was sure that it was in a healthy condition; every application previous to that should be considered preliminary treatment. The oxychloride was a substance which, applied in a plastic condition, adapted itself without pressure to the exposed vascular pulp, and then, on hardening, protected it for a time from the action of external agents.

Dr. Horne said that he had waited up to this time in the expectation that the various advocates of the new plan, if let alone long enough, would destroy one another's arguments, and his expectations had been fulfilled. The use of the oxychloride of zinc had been first brought to

general notice at the meeting, two years ago, at Boston, where Dr. Keep, of that city, claimed large success in a number of recorded cases. It was a question in his mind if the material which Dr. Keep used was at all like the material sold under that name in the dental depots; and the gentlemen who had thus far spoken used the oxychloride of the shops, and not Dr. Keep's preparation, as far as he could judge. The whole claim really amounted to about this: A preparation, called oxychloride of zinc, consisting of a white powder, which is mixed into a mortar with an acid fluid, is plastered into the tooth over an exposed pulp; the patient has more or less pain for a longer or shorter time, and then it stops; after hardening, cut away the surplus material and fill the cavity with gold, and, where there is no subsequent pain, conclude that the pulp of the tooth is alive and all going well. Some modify this process by covering the exposed pulp with creosote before putting in the mortar, and claim that there is then no pain felt. A great many who had tried the same process had had a great deal of subsequent pain to contend with. But all this superstructure had been built upon the slight foundation of some temporary apparent success, opposed by a great deal, perhaps more, of evident failure, in the face of the well-known fact that teeth containing dead pulps might lie dormant years and then break out into the most troublesome activity; and also that pulps, after having been exposed, might, on the condition of the exclusion of air and moisture, quietly die and become atrophied. On the other hand, it was as certainly true that an exposed pulp was occasionally found which, having maintained its healthy vitality, and being protected from external irritation, threw out from its enveloping membrane a deposit of secondary dentine, which more or less perfectly shut up the opening into the pulp cavity. But these cases were so rare that men would go from one city to another to see them. Admitting all the favourable cases cited to-day as perfectly true, so far they were utterly insufficient to prove that the pulps in question were not now dead, or undergoing a slow destruction by the free acid whose presence had been so incautiously alluded to, or by the powerful escharotic (creosote) used to abate the pain caused by the acid, and whose legitimate action would be to destroy the soft tissue with which it came in contact, insuring to it only a less painful death. While experimentation was to be sedulously encouraged, he deprecated the confident assertion, as fact, of what was only supposition. Let us see what a few years may bring forth. Other theories, as well supported as the one here presented, had needed but a short time to run themselves out; and he was therefore the more careful not to fall at once into every new current, but rather disposed to prove all things.

The Committee on Mechanical Dentistry reported, through its chairman, Dr. B. T. Spellman, of Warren, Ohio. He noticed, in order, the several materials in use as bases for artificial teeth. As to Colburn's material, the report agreed with the manufacturer that it would answer for temporary use, not to exceed a few months. Newbrough's rubber being prepared by a new process, the committee are unable to report whether it will stand the fluids of the mouth or not. It possesses the same properties as dried vegetable ivory, and that soon softens in the mouth. The wicked raid made by the rubber company had induced some good men to be too sanguine of it. The Simpson rubber had disappointed the profession. Dr. McClelland was invited to come before the committee and explain his process, but he neither came nor replied. Of the merits of this material they know nothing, but are glad to report that there is much talent and industry devoted to the discovery of something which will take the place of rubber. The porcelain base is recommended as growing in favour and unsurpassed for cleanliness; the contour of the face is as well restored by it as by the platina and continuous gum work. There is no trouble in making an upper or under set; it can be ground to fit the plaster cast in about the same time needed to get up a set of rubber blocks; the marks of the stone to be obliterated by a coating of gum enamel fused on afterward.

Artificial palates have been simplified to such an extent as almost to render staphyloraphy obsolete.

The committee reported no improvement in the status of mechanical dentistry, the advent of rubber having driven the best men from the laboratory in disgust. They recommended only gold for partial cases, and Dr. J. Allen's continuous gum as the ideal fully attained in supplying lost teeth and restoring the contour of the face.

Dr. C. R. Butler, from the Committee on Dental Therapeutics, reported that he had seen the best results, in treating sensitive dentine, follow the use of carbolic acid and the acetate of morphia; he did not consider it safe, however, under all circumstances. He had found tincture of aconite root to work favourably in cases of facial neuralgia or peridontitis. Chloride of zinc, in varied dilutions, is a valued remedy in the treatment of many oral diseases. He did not perceive the advantage of phosphate of lime to remedy defective dental tissues; he believed there is not a lack of material but of assimilative power in the organism.

A special Committee on Instruments and Appliances, consisting of Dr. Shepard, of Boston; Bogue, of New York; and Smith, of Cincinnati, reported improvements in dental chairs, by Drs. J. B. Morrison, O. C. White, I. A. Salmon, and W. M. Butler; a pneumatic mallet, by B.

Bannister ; an automatic mallet, by I. A. Salmon ; hand pressure and mallet pluggers, by S. C. Taylor ; an improved regulator for controlling the heat in making nitrous oxide gas, by F. Searle ; an automatic apparatus for the same purpose, by A. W. Sprague ; an improved pin for artificial teeth, by J. A. Mason ; pluggers, excavators, nerve instruments, &c., of improved patterns, by S. S. White ; extension bracket, with gas annealing lamp combined, by Buffalo Dental Manufacturing Company ; a compressor for closing flasks inside the vulcanizer, by G. Hays ; a porous duct compressor, by A. P. Southwick.

A few minutes were allowed Dr. McClelland, which he used in stating the good qualities of his base for teeth ; he threw a number of pieces to the ceiling, and about the room, to demonstrate their strength.

Cosmos.

EDITORIAL.

THE DENTAL ASSOCIATION OF QUEBEC.

It will gratify the friends of the Dental movement in the Upper Province, and, indeed, all who approve of the efforts made to elevate and advance our specialty, to learn that the acorn of progress sown in Ontario has sprouted a stem in Quebec, and that we now have two Dental Associations in the Dominion.

The results of legislation in Ontario have been placed before every dentist in Quebec, through the columns of this journal, and it was becoming a reproach that the Province which gave birth to the first dental periodical in Canada, could not organize an Association. The local circumstances, however, of the profession in the two Provinces differ somewhat, and the necessity for an organization in Quebec seemed less absolute than in Ontario. The smallness of our numbers in this Province, and the more limited scope for practice, could not as soon necessitate the associative principle, or develop the same necessity for legislation as in Ontario, where the members of the profession, having a larger field for labour, are more numerous. The raids of empiricism, and the issues of ignorance, have been far more extensive, too, in the Upper Province, and the general condition of things there was more favourable to organization.

Recently, however, the indications have been, that association and incorporation in Quebec are an exigency of the times, and a movement

on our part which our patients, the public, have a right to expect. The certainty of an invasion from the floating population of quacks, who most do congregate on the other side of the lines, and a transfer of the scene of operations from Ontario to Quebec of the empirics and incompetents who could not, or would not, comply with the requirements of the Ontario Act, demand immediate action in Quebec, as a matter of protection to our own reputable practitioners and the public at large.

It is satisfactory to know that the profession of this Province are fully determined to preserve an equal standard of professional requirements with that of Ontario; and it is well for any who propose casting anchor in this Province, to know, that such change, in hopes of immunity from the provisions of Ontario legislation, will only bring them between two fires.

The sooner we are prepared to compel quackery to turn over a new leaf or abdicate, the sooner will the public appreciate the Dentist in his true light, and the sooner will Dentistry be elevated and improved as a profession. The principles of Dental associations strike at the very root of quackery; which must commend them to every intelligent and worthy practitioner. Their moral effect upon the operations of their members is unquestionable; they transfuse character and a fondness for knowledge, as well as the desire to excel. There is an inoculative effect produced on poor operators by witnessing the clinics of those more skilled; and there may be more truth than poetry in the theory of infusion of knowledge by association; as Charles Lamb believed he inhaled learning by walking through, and meditating in old libraries. The experienced are gratified to impart their learning, and the young are glad to imbibe; and if one has too high an estimation of his own abilities, the probability is that by association the delusion is soonest dispelled.

The objects of such associations must commend them to every patriot. In our New Dominion, it is important that every individual, no matter how humble his sphere, should be possessed with a sense of his individual responsibility as a citizen. The status of any calling, as a whole, is but the aggregate status of the individuals representing it, and the character and ability of the individual makes that of the mass. By improving our own sphere of labor, therefore, we fulfil our individual responsibility; and it is a common sense axiom that whatever tends to elevate and improve any one calling which, in the division of labor, forms a part of the grand system of work, reflects credit upon the country at large. With such a principle and such a theory before us, we will all aim at perfection, though we may not all attain it.

The difficulties in the way of an Association in Quebec are few and

insignificant. Disparity of numbers is a great advantage instead of an obstacle, and, providing that no local or national feeling be raised in anything connected with the organization, the Quebec Association must inevitably fulfil its objects. May the unanimity which characterized its preliminary meetings always prevail; and may a noble rivalry in all things worthy stimulate the two sister associations, and the work we are now doing for our profession be done so well and so thoroughly, that in future years, when we come to compare its state with what it was, our retrospection may be pleasant and congratulatory. W. G. B.

THE CONVENTION AT HAMILTON.—AN EXPLANATION.

We regret to learn that not a few members of the profession in Ontario have construed our remarks in the last number on "The Convention at Hamilton" as a rebuke to those who moved and carried the vote of censure on the Board, and as a defence of the latter. One correspondent says, "You must know that certain members of the Association and the Board did wrong, and why did you not lecture them as well as the correspondents."

In answering this query, we trust we shall make an explanation that will satisfy every member of the profession that this Journal did not and will not apologise for the wrongs committed by any of the members of the Association or the Board, and that in every respect it is an independent organ.

When the offending editorial was written, and indeed until about two weeks ago, we were entirely ignorant of the vote of censure and had not the least suspicion of any such action. The portion of the Proceedings which appeared in the August number of the Journal, was the only part in our possession, until about two weeks ago, when the balance came to hand. It must be clear, then, that we did not rebuke those who moved and carried the resolution, when we knew nothing whatever about it. On the strength alone of the contents of the letters before referred to, the editorial was written, and we had not the remotest idea of any action of censure on the Board, as not one of the said letters intimated it, and no one informed us. We distinctly stated that the lecture was especially intended for "the correspondents," and "any inclined to the same method of resentment," viz., wishing to publish abusive personalities, without a shadow of fact or argument.

We make no retraction of a word in the editorial of last month; but would rather add to it by suggesting that the correspondents who favoured us with their vulgar fulminations, be ridden on a rail out of the next

Convention. We can make no retraction, because we intended no wrong; and if the editorial was liable to a double meaning, this explanation must satisfy our readers that in interpreting it as some did, they discovered a "mare's nest." And to assure doubters that this Journal is not controlled by the Board, individually or collectively, we desire to express our approval of the course taken by those who voted for Mr. Trotter's resolution. At the same time, in justice to both sides, we will say that we were never once asked to write up the views of the Board, nor to rebuke those whose views did not tally with theirs; and while, from our point of view, we should judge the sin which prompted the vote of censure, to be a sin of omission rather than commission, we decidedly sympathize with those members who were deprived of their franchise. W. G. B.

LOCAL ASSOCIATIONS AND A DOMINION ASSOCIATION.

With such example before them as set by the Provinces of Ontario and Quebec, it is expedient that the other Provinces of the Dominion should each follow suit and organize local dental societies. The matter is now comparatively easy, as the Ontario bill and the constitution and by-laws of the Ontario Association afford access for imitation, and the *Canada Journal of Dental Science* now exists as the advocate of the whole profession in Canada. Nova Scotia has equal facilities with Quebec for an organization, and equal necessity. With the extension of local societies we may come in time to consider the propriety of a Dominion Dental Association, and a Dominion Act. In the meantime, let us aim to ensure and extend the usefulness of the local societies in existence, and let the good they accomplish be their best recommendation. W. G. B.

TO THE MEMBERS OF THE DENTAL ASSOCIATION OF ONTARIO.

The publisher has consented to send this number to all the members of the Association, whether they are subscribers or not. The report of the Committee upon the Constitution and By-laws is in the hands of the chairman, Mr. J. H. Bryant, of Woodstock, who was authorized by the Association to have the by-laws printed in pamphlet form for the use of the members. The members will soon receive copies. The constitution was amended at the Hamilton meeting, so far as relates to the annual fees. Mr. Beers having kindly offered to publish the proceedings in full in the *Journal*, one dollar per year was considered sufficient to meet the other expenses of the Association.

The certificates of membership are filled up, and as soon as the signatures of the late president, and late corresponding secretary, can be obtained, which will be in the course of a few weeks, they will be forwarded to all the members, *incipient*, *active*, and *honorary*. It is hoped that the members will remit the small annual fee to the treasurer, L. Clements, L. D. S., Kingston, without delay, as a few old accounts, audited by the Hamilton session, have not been paid. The annual fee added to the subscription to the *Journal*, is only four dollars, the amount formerly paid by each member.

The Association has been successful in carrying a bill through the Legislature. The work that most thought would require five years to accomplish, has been done in less than half that time. This affords us cause for congratulation. On the other hand, the country and the profession have been taken almost by surprise. They are yet hardly prepared for the new order of things, and a little time must elapse before the prejudices of the public and the profession will subside.

In our own province, the medical profession are willing to recognise us as a branch of the healing art. In the province of Quebec, the profession of dentistry is looked upon by medical gentlemen, in many instances, as a thing beneath their notice. The recent organization of the "Dental Association of the Province of Quebec," will soon place our profession there in its proper form before other professions and the public.

Heretofore much time has been occupied at our meetings with business and criticisms upon matters that will not in future require attention. The *great* object, mutual improvement, can now receive more attention. It is hoped that members will not lose sight of the fact, that we now have a recognized organization, and that our strength lies in our being united. So far as the writer is concerned, he is desirous of retiring from the duties of his office, for two reasons: first, for want of time to attend to it properly; second, that the youngest member of the Association may feel that the older members do not desire to monopolize the offices.

Knowing that the formation of any other organization for the province, although, perhaps, not intended as antagonistic, would so be regarded by the public, the writer is willing to make any and every sacrifice, in reason, that this may be avoided, and that unanimity may prevail among us. Dentists of twenty years practice may feel, perhaps, out of place under officers of six to ten years standing; but such considerations are of no moment compared with the importance of sustaining the standing of the profession at home and abroad.

J. S. S.

Subscribers who paid for the Journal, and who received the circular enclosed in the last number, will please accept our apologies. In the hurry of folding and posting, it was enclosed in all the Nos. sent away, though only intended for those who have not yet subscribed.

We commend the spirit of Mr. Trotter's essay in the present number to the earnest attention of every practitioner and student.

We have to apologize to our subscribers for the lateness of this issue. Several unavoidable circumstances, and the desire to embody in this number the proceedings of the preliminary meetings of the Association of Quebec occasioned the delay.

We send this number to every dentist in Canada, but, in future, will only send the journal to subscribers.

VICTORIA UNIVERSITY.—Attention is directed to the announcement of the Medical Department of Victoria University, for the session of 1868-9, to be found in our advertising columns. Lectures will commence at Toronto, on the first day of October next. Until we have a Dental College established, students in Dentistry will find attendance upon lectures in medical schools of great advantage.

THE DOMINION MEDICAL JOURNAL.—Vol. I, No. 1, of the above journal is received. Published monthly at Toronto. Edited by L. Brock, Esq., M. D. It contains an original article by Professor Berryman, M. A., M. D., upon "Bromide of Potassium;" also articles as follows, by the editor: "Introductory," "Medical Education," "Benefits of Members of Professions," "Toronto Hospital," &c., &c.

Next to dental publications, dentists should subscribe for medical journals, dentistry being a branch of the healing art.

SELECTED ARTICLE.

NITROUS OXIDE IN ENGLAND.

BY J. H. M'QUILLEN, M.D., D.D.S.

It is somewhat surprising—if not, indeed, amusing—to observe by the English medical and dental journals, that the recent introduction of this agent as an anæsthetic to the dental profession of England (first by Dr.

W. H. Waite, of Liverpool, in a lecture before a chemical society of that city, and subsequently by Dr. Thomas W. Evans, of Paris, the latter not only visiting London expressly for that purpose, and demonstrating its applicability on various occasions, but, in addition, very liberally presenting to the Dental Hospital of London "one hundred pounds [\$500], to be used for the purchase of apparatus and materials to manufacture nitrous oxide gas," so that the agent might be thoroughly tested in that institution, has met with the most decided opposition on the part of a number of medical writers. The most prominent among these is Dr. B. Ward Richardson, well known as the discoverer of local anaesthesia by means of the ethereal spray, whose name has been frequently referred to in the most favourable manner in this magazine by the writer. Had this gentleman restricted himself to animadversions of the indiscriminate use of nitrous oxide on the part of ignorant and unprincipled persons (who have not only removed thousands of teeth which might have been saved for many years of valuable service, but, in addition, have placed the lives of those who have come under their hands in jeopardy, by using a potent remedy of whose composition they knew nothing, and therefore likely to employ an impure as a pure article, and in cases of impending death from its employment would be unprepared to meet such an emergency with any prospect of saving the life of the patient), there would have been much propriety in his objections. When, however, employing such strong language as the following (in italics), he indicates not only strong prejudice, but, in addition, a want of familiarity with its employment as an anaesthetic in the practice of surgery. At a recent meeting of the Medical Society of London, as reported in the *Lancet*, he remarked: "It was painful to see the childish excitement with which nitrous oxide and its effects had recently been dwelt upon. The gas had been treated as an unknown, wonderful, and perfectly harmless agent; whereas, in simple fact, it was one of the best known, least wonderful, and most dangerous of all the substances that had been applied for the production of general anaesthesia. No substance had been physiologically studied with greater scientific zeal or more rigid accuracy, and no substance had been more deservedly given up as unfit and unsafe for use. It had caused death in the human subject, and on animals it was so fatal that, with the utmost delicacy in its use, it was a critical task thoroughly to narcotise an animal with the gas without actually destroying life." What the mortality attendant upon its use may have been abroad I know not, and any cases reported there have not come under my notice. In this country, notwithstanding the thousands of times which it has been and still is employed (too often, alas!

as already stated, administered by the most ignorant quacks), but two fatal cases have occurred: in the first of which an autopsy revealed the fact that the lungs of the patient were perfectly riddled with tubercles, and in the second place death was caused by swallowing a cork placed between the teeth to keep the jaws open. This speaks volumes in support of the fact that of all anæsthetic agents this is evidently the least dangerous which can be used. With respect to its employment in connection with animals, having had no opportunities of observing its administration under such circumstances, I am unable to say anything; but the reference to them reminds me of a peculiar exhibition I witnessed when a student at the Jefferson Medical College, some twenty years ago. A much respected and deservedly eminent obstetric teacher, Prof. Charles D. Meigs, who had conceived a very strong prejudice against sulphuric ether, particularly in obstetric practice (and who frequently asserted that the pains of labour which a mother bore made her love her child the more, and that an obliteration of such suffering by anæsthetics would have a tendency to lessen maternal affection), informed the class one day that he would demonstrate to the students what a very dangerous agent sulphuric ether was, by administering it in their presence to some animals. An old sheep and a lamb were accordingly brought into the lecture-room, and after considerable trouble, the expenditure of much time, and by *cutting off the supply of atmospheric air entirely*, the young animal died, but the old one most obstinately and pertinaciously refused to do so, although most decided efforts were made by the attendants to induce suffocation, and continued for an hour and a half, when at last it was decided to let the poor creature alone. Notwithstanding the large amount of ether used, and the improper administration, the animal did not appear particularly affected by it.

It is matter of regret, for Dr. Richardson's own sake, that he should have assumed such a decided opposition to an agent which, in this country, has been employed with advantage, not only in minor surgery, but also in numerous capital operations. It looks very much indeed as if his judgment had been warped by a too fond regard for local anæsthesia. The experience acquired by him in connection with his observations on the coagulation of the blood should have induced more discretion than is manifested by the espousal of such a cause as opposition to the use of nitrous oxide. In the case referred to, after writing a most elaborate and apparently exhaustive work on the "COAGULATION OF THE BLOOD" (*the Sir Astley Cooper Prize Essay for 1856*), wherein it is stated most emphatically, as the result of carefully conducted and frequently repeated experiments, that the coagulation of the blood is due to the escape

of ammonia, he has said during the past year, with an honesty worthy of commendation and imitation, in a brief paragraph, that a more extended experience has convinced him that the conclusions then arrived at were erroneous and untenable. That he will sooner or later recognize his present position with respect to nitrous oxide is equally so, is fair to infer.—*Dental Cosmos*.

MISCELLANEOUS.

It is estimated that at the six Dental Colleges in the United States, there were 400 matriculants, and 180 graduates in the session of 1867-8. The census returns of last year state that there are over 10,000 dentists in actual practice in the Union.—*Dental Office and Laboratory*.

In a village not sixty miles from Toronto, a young medical man issued a card, informing the inhabitants of N. and the surrounding country, that he had taken up his abode in their midst for the purpose of practising medicine; at the conclusion of the notice was his name thus:

_____, M.D.
Physician, Surgeon, &c.

N.B.—All diseases of the Lungs receive special attention.

GOD SAVE THE QUEEN!

A professional antagonist, in the same village, thereupon issued a card, winding up his address as follows:

"Sincerely thanking his friends for their support, and soliciting a continuance of the same, Dr. ——— begs to intimate to them, and the public generally, that he is determined to devote himself *more untiringly* to the explanation of disease," &c. The italics are the Doctor's.—*Dominion Medical Journal*.

NOTICE TO READERS, CORRESPONDENTS, &c.

Remittances of money, articles for publication, advertisements, and books for reviews, should be addressed to the Editor at Montreal. Money letters should be registered.

Contributions are respectfully solicited. Contributors will please write as legibly as possible, and only on one side of the paper.

Exchanges.—We would thank other journals to exchange with us *in duplicate*, and address to each editor respectively, in Montreal and Toronto.

Advertising.—We would call attention to the facilities offered by the journal for advertising.

Each subscriber receives the "Canada Dental Directory" *gratis*, at the end of each year. The names of subscribers and contributors will be published annually.

STOCK FOR SALE.

I am now prepared to supply the profession with S.S. WHITE'S or the STARR RUBBER, at \$2.50 per pound. Also ALUMINUM PLATE, at \$3 per ounce.

Sent to any part of the Dominion per Express. C. O. D.

G. V. N. RELYEA,
BELLEVILLE, ONT.