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DOMINION DENTAL JOURNAL.

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Original Communications.

Retiring President's Address.*

By DR. CARL E. KLOTZ, St. Catharines.

GENTLEMEN,—As President of our Society, I welcome you to this our seventh annual gathering, and in doing so I am very much gratified in seeing such a good attendance, and hope to see the day when all the dentists of Ontario will be members of our Society.

This meeting is a decided improvement on the one held last year in the city of Kingston, which, I am sorry to say, was poorly attended. The union meeting of the Eastern and Ontario Dental Societies was, so far as numbers were concerned, creditable, but the Ontario meeting itself was very meagre in attendance. Nevertheless some very good papers were read, and the discussions thereon were interesting and profitable.

As our programme is rather a lengthy one, I will not detain you with a long address, but there are a few matters to which I wish to allude.

One point of great importance on which I will speak, is the lack of interest exhibited by a great many members of our profession, as shown by their absence at our meetings. Our Society is now on a good basis; still there is not so much interest taken in our gatherings as in years gone by. The principal fault is, that there are too many dentists in Ontario who are indifferent about attending the meetings. Some who were formerly useful members of the Society have, I regret to say, passed over to the great majority; others, of the older practitioners seldom come, or have ceased to attend altogether for reasons best known to themselves, while a

* Read before the Ontario Dental Society, Toronto, July, 1895.

great many are never seen at them at all. This lack of interest sets a bad example to the younger dentists. I consider it the duty of every dentist to contribute in some way or another to the furtherance of our profession, not only in private practice amongst his circle of patients, but by coming to our meetings, taking part in the discussions, assisting in answering questions or asking them himself, or listening to the remarks of his colleagues in reference to the case under discussion. Furthermore, those who are capable should occasionally write an article for publication in a dental journal, so that it could be read and thought over by others at leisure.

Dr. C. N. Johnson wrote an article which was published in the DOMINION DENTAL JOURNAL some time ago, entitled "The Status of the Profession in Ontario." Although I do not agree with him in every particular, yet there are some points in which he "hit the nail on the head," particularly when referring to the apathy shown by too many dentists in attending dental meetings.

To another point I wish to call the attention of the officers of our Society, that is, to see that the proceedings are published fully in the DOMINION DENTAL JOURNAL, so that they can be read by subscribers who do not attend the meetings, thereby inducing them to become members, and assisting to swell our list of membership to what it should be.

These remarks are not made in a fault-finding spirit. They are merely hints as to how we may try to influence others to join our ranks, particularly some of the older practitioners, who, in course of time, have worked themselves into such a narrow groove that it is almost an impossibility to extricate them from the ruts into which they have fallen, and to prevent the younger generation from sinking into a similar condition, as some seem inclined to do.

The following is a translation of an article published in one of our German contemporaries. The remarks apply with equal force to the attendance of our dental meetings.

The article is headed, "What a Reader owes to a Journal devoted to his calling or profession." "My dear readers,—You will be surprised if I tell you of duties you owe to your special journal. Most subscribers think, that after they have paid their subscription fee, they have done their part and nothing more is required of them. We expect from a journal that it should give information or instruction in everything that is new or is invented or is discovered in our profession, and that it should support and defend its interests. An editor is expected to keep himself posted in everything that happens in his department and immediately draw the attention of his readers to it, to give advice when requested, and to answer any question that may be asked him. This, and a great deal more is demanded of him. And when he asks, 'from what

source shall I obtain all this information?' you will very likely say, 'that is your business as editor.' Not so, my dear sirs. Not only the editor, but also you have your part to perform in furnishing him with information and matter for publication in his journal; for if you want a journal to assist you and to be written in the interests of your profession, which are also your own, then you must do your part toward assisting and furnishing it with information, or whatever you may have which is interesting or beneficial to your colleagues. No matter how much labor the editor may expend, it is impossible for him to be thoroughly informed in everything, or to observe all that transpires, even with the help of good co-laborers, for many a thing will pass his or their notice which may be of inestimable value to the profession. Here it is where the duty of the reader comes in. He should draw the attention of the editor to anything he has seen or read about and give his opinions and experiences, so that others may have the benefit of them. Fortunately, we are past the era of mystery or secrecy, and if any advancement, improvement or an invention is made, it is not concealed by the originator for his private use, but is immediately made known. If it is a machine or instrument the manufacturer will be certain to make it public in order to be able to dispose of it, or should it be a new procedure or treatment, the person on whom it has been applied will speak about it, thus making it known. All improvements or advancements are sure to be made public in one way or another. Some readers may now say, 'in that case, I do not need to be the one to publish it, it has cost me my time and money—let others spend theirs.' If that is your opinion, I must say it is a very narrow one, for if everyone thought and acted on that principle then all would have to gather their own experiences, and little or no progress would be made in science or anything else; and if that costs money, everyone would have to expend a like amount, and a large sum would thus unnecessarily be squandered which could have been avoided had the originator published his experiences."

This article is very applicable to the present position of the Ontario Dental Society. Every dentist who attends Society meetings well knows that through the discussion of a subject or from opinions given by different practitioners, even in private conversation, or through the interchange of new ideas, more information can be gathered than can be obtained in a considerably longer time from text-books. At the Clinics one sees how a piece of work is done in which many a little manipulation, which is difficult to describe on paper, occurs, and is easily comprehended when seen. Certainly it is not to be disputed, that in seeing a piece of work done or an operation performed, it is impressed far more firmly upon the memory than if the same information were obtained from a text-book.

I should be greatly pleased if these remarks were to come under the notice of those practitioners who do not attend our meetings, so that they could give the matter a little more consideration and thereby be induced to become members.

On another matter which bears on the subject of membership, I will say a few words.

There has been some talk of trying to bring about an amalgamation of the Eastern Dental Society with the Ontario. So far as my opinion is concerned an amalgamation is not what is desired. We would like to see every dentist of Ontario belong to the Ontario Dental Society, and this to be the Society for the Province. It would be a matter of regret if the Eastern dentists were to give up their Society, for as much as I have seen of it and from the spirit shown by the members at their meetings, it deserves imitation. We dentists of the Central and Western part of this province might follow their example in some measure and divide Ontario into districts, with a society for each. At these dentists could conveniently and regularly meet and discuss subjects as well as prepare matters, if necessary, for the General Meeting held in the month of July.

Before I conclude let me express a hope that henceforth we will all endeavor to enlist such practitioners whom we may have in our neighborhood, and who are not members, into the ranks of this Society. Also, as I have said before, let our proceedings be fully published in the DOMINION DENTAL JOURNAL, which has a large circulation in America and European countries, so that others may read what we are doing here in Canada, and may see that we are not behind other countries by a certain number of years, as some think we are.

Gentlemen, I thank you for the attention you have given me, and hope that these remarks will be taken in the same friendly spirit as they are given.

Pathological Conditions of the Mouth Due to Artificial Dentures.*

By CHARLES S. BUTLER, D.D.S., Buffalo, N.Y.

GENTLEMEN,—The pathological conditions of the mouth due to artificial dentures have not hitherto received the consideration of the profession their frequency and seriousness seemingly demand; and while it is not my purpose to do more than call attention to some of the more apparent difficulties, yet I trust enough may be said to lead you to a full and careful study of the whole subject.

* Read before the Ontario Dental Society, Toronto, July, 1895.

The presence of an artificial denture upon the mucous surfaces of the mouth, pathologically considered, is cause for apprehension, and in view of the large number of persons who by reason of the premature loss of their dental organs are required to wear them, it is of the highest importance that this deleterious influence should be recognized and eliminated as far as possible. When inserting an artificial denture, it should always be borne in mind that a foreign body is being introduced in the oral cavity, which may become to a greater or less degree an irritant to the tissues and organs with which it comes in contact. That it is possible for any mouth long to endure the presence of these substitutes without pathological disturbances, becomes more and more inconceivable as we study carefully the relations they sustain to each other, for substances so unlike as artificial dentures and the mucous membrane of the mouth are brought together nowhere else in the human body.

The mucous membrane of the oral cavity and the skin present the same anatomical features, with few exceptions, being analogous products of the same external layer of the blastoderms, and are continuous, the one with the other at the lips. The oral membrane consists of the stroma, epithelial cells covering it, the lymphatic glands and nutrient vessels which lie embedded in the substance of the stroma. The surface of the stroma is covered with papillæ, which, with the exception of those found on the tongue, are identical with those of the skin.

The surfaces between the papillæ are filled with epithelial cells, which give to the mucous membrane an outwardly smooth appearance. The deepest portion of this epithelial layer is formed by a layer of protoplasm, and in this protoplasmic layer are found the youngest of the epithelial cells. In a normal condition there is a constant production of young cells and a subsequent desquamation of the oldest cells of the epithelial layer, which under ordinary or natural circumstances are floated away in the saliva. This exfoliation of the epithelial cells is a physiological process which in health takes place slowly; a too rapid shedding giving rise to pathological conditions; shallow ulcers, aphthous or canker, being caused by the shedding of the older or superficial cells faster than the young cells are developed.

The most favorable conditions for a too rapid shedding of these cells is established under artificial dentures resting on the mucous surfaces of the mouth.

All artificial dentures are poor conductors of thermal changes, excepting gold and continuous gum, which quickly become such by decomposed mucus, saliva and debris, and consequently the membrane of the mouth covered by them is kept at a higher temperature than when in a normally exposed condition.

The temperature of the body is maintained at from 98° to 100° F.

mainly by the dilations or contractions of the blood vessels at the surfaces, and the cooling of greater or less quantities of blood by contact with the atmosphere. When for any reason the cooling influence of the atmosphere is excluded, like the close wrapping of a rubber garment about the body, a rapid rise in surface temperature is at once observable, the heat produced within being retained at the surface of the body owing to the contraction of the capillaries; this process being analogous to what, in animals having a vascular system, is known as the first stages of inflammation or stasis, when the arterial system is pouring more blood into the parts than the capillaries in their contracted condition are able to convey through the tissues, and so when the mouth is to a greater or less extent covered with a non-conducting substance, the heat conveyed to the surface is not radiated, a too rapid shedding of the epithelial cells is at once established, and congestion, inflammation, and not infrequently suppuration, quickly follows.

Cast-off and decomposed or decomposing epithelial cells are in themselves irritating if permitted to remain long in contact with healthy tissue. With the surfaces of the mouth exposed, they are quickly floated away in the saliva in the act of mastication, or by the employment of some one or more of the hygienic apparatus in such general use. But with the membrane covered with an artificial denture, retained by atmospheric pressure so closely as to exclude the saliva, they must remain an irritating substance upon the mucous surfaces. Very frequent and very thorough brushing of the plate and mouth would seem necessary to protect the membrane from the morbid influences of these decomposed cells. When the air is entirely exhausted from beneath the plate—which is seldom done—there is a pressure upon the outer surface of about fifteen pounds to the square inch, the same as upon the body in a relative sea-level atmosphere. Of course there is an outward pressure in the body which, in a normally exposed condition, equalizes this pressure from without, and physiological function is maintained without impairment.

But let the antagonism between the outward and inward pressure be removed, as in a sudden change from a normal to high altitude, and pathological conditions are at once established, as bleeding from the nose, sweating blood from the finger ends, and other unpleasant and sometimes alarming symptoms clearly indicate.

It sometimes happens that the pressure of a plate in the mouth has the effect of destroying this antagonism, and the greatest care should always be taken when constructing and inserting them to see that pressure is equally distributed, so that the bearing shall be upon as large a surface as possible, ever remembering that the continued pressure or sucking necessary to hold the denture to the

roof of the mouth, is not infrequently sufficient to cause congestion, inflammation, and sometimes suppuration.

The mucous membrane of the oral cavity was designed by nature to be exposed to the friction of the tongue and of food during mastication, and to be constantly bathed with saliva and mucous secretions. But by the substitution of a dental plate for the lost natural organs, these designs are wholly or in part destroyed, and it would seem that such interference with normal functions could not long be permitted without grave and serious consequences.

As commonly understood, saliva has to do only with mastication, deglutition and digestion, but as there is scarcely a moment under normal conditions when the mucous membrane of the mouth is not bathed with it, it is not unreasonable to suppose it has to do also with the health and vigor of that tissue.

In cases of mouth-breathing, we know how quickly the membrane becomes thickened, congested and oftentimes inflamed, conditions due, no doubt, in part to septic atmosphere passing over the surface, and in part to the mucous secretions being quickly evaporated and the glands paralyzed while the saliva ceases to flow altogether except under the stimulus of mastication, so that we are forced to believe, that to protect the membrane from the irritating influences of the atmosphere and to flush away the *excretus* of the mucous glands, is the office of the saliva in its relations to the tissues it constantly bathes.

Thus far we have been considering some of the less conspicuous influences in the production of pathological effects of dental substitutes—influences usually eluding observation and wholly, or in part, misunderstood by a large percentage of dental practitioners. But there remains yet to be considered one influence which is more fruitful in the production of pathological results than all others combined, namely, *mechanical irritation*, which may, and often does, cause organic changes, modifying the nutrition of the parts and giving rise to morbid alterations of structures. It is a well-known fact in pathology, that any long continued irritation may so alter the nutrition of normal structures and benign growths as to impart to them a semi-malignant or malignant type. The mucous membrane of the mouth is especially prone to organic changes under long-continued irritation. Simple hyperæmia, spasmodic stricture, labial epithelium *epuloids*, and tumors of various forms may and often do result from simple mechanical irritation. But undoubtedly most of the organic affections which primarily result from irritation, are the immediate results of inflammation, chronic or acute, which is itself the result of cell irritation. Tissues inflamed become morbidly sensitive, and mechanical and other irritants operating upon an exalted sensibility are productive of still more irritation in a pathological sense, for whether chemical or mechanical it does not cease when inflammation supervenes.

It is easy, therefore, to understand how it is that pathological changes so frequently follow the wearing of artificial substitutes for the natural dental organs. Perfect adaptation of the case to the mouth is rarely or never attained, and the local mechanical irritation is in all cases probably far greater than is generally supposed. No mouth is of uniform density, yielding alike to pressure in all its parts, so that in the act of mastication the unequal pressure of the denture upon the mucous surfaces is in itself sufficient oftentimes to cause trouble, and is not infrequently the underlying difficulty in attaining the success our efforts should seemingly merit.

Until quite recently many of the pathological conditions due to the presence of artificial dentures in the mouth have been attributed to the vermilion or coloring matter in the materials of which some of the plates are constructed. Dr. Edw. C. Kirk, writing for the *American System of Dentistry*, upon this point says: "Many cases in practice tend to a confirmation of this idea, yet a careful analysis of them, as well as the absence of conclusive evidence based upon systematic scientific investigation, fails as yet to establish the truth of such a theory."

Vermilion being a salt of mercury, men have erroneously contended that its action must necessarily be poisonous; but that such is not the case is evident from the fact that it is wholly inert medicinally, and is one of the most insoluble of the mercurial salts. Sodium sulphide in strong solution is the only menstruum that will dissolve it, when it becomes a mercuric sulphide solution and is decomposable only by heat or the strong mineral acids. It has also been claimed by some writers, that in the process of vulcanization, decomposition of the vermilion takes place, resulting in the liberation upon the surface and through the texture of the plate, of metallic mercury, which being acted upon by the oral secretions, produces local mercurial poisoning. Theoretically such a result cannot follow, for the temperature to which the vermilion is subjected during vulcanization is far below that necessary to effect its decomposition, and should the proper heat be reached accidentally, the pressure of the sulphur which is incorporated in the rubber to produce hardening, would immediately reconvert into mercuric sulphide any mercury which had been set free; so that while it may be possible that individual samples here and there have shown free metallic mercury, yet a careful study of the subject must preclude the possibility of such general occurrence as to account for the frequency of rubber-sore mouths. In making this statement I am not unaware of the advantages sometimes urged, and the benefit frequently derived from the substitution of black rubber for the red variety, and am prepared to admit its superiority though not on the grounds that have been urged against the vermilion,

but because containing only pure caoutchouc and sulphur, the texture of the finished piece is finer, more dense and less spongy, and consequently less liable to absorb and retain secretions. But it has not yet been conclusively shown that equally good results would not follow the substitution of a new, well-fitting red rubber case, the sore mouth being due, as I believe, largely if not wholly to mechanical irritation caused by an ill-fitting or poorly constructed denture.

In the early days of rubber when vulcanizing was imperfectly understood, machines crude and not at all uniform in their results, as a consequence cases vulcanized either so hard as to burn the vegetable fibre out of them, or so soft as to leave the plate porous and incapable of polish, mucous secretions and debris quickly filling the pores, decomposing and so becoming irritants capable of producing the greatest troubles.

But with the perfect machines of to-day, to say nothing of the improvement in the different varieties of rubber, there would seem to be little excuse for obtaining anything but the most satisfactory results, though I fear the growing tendency to the use of wax and modelling compounds as substitutes for plaster in taking impressions, will more than neutralize the advantages of improved materials and machinery.

Elements of Success in Dental Practice.*

By WM. BRUCE, L.D.S., Listowel, Ont.

GENTLEMEN,—The subject which I am about to present to you is one possessing great interest to every dentist, and therefore demands our most careful and earnest consideration.

It would hardly be becoming in me to attempt in this paper to speak of all the conditions of success, even if I had the ability to do so. I therefore beg your indulgence while I bring before your notice some of the more important elements necessary to a successful practice in modern dentistry.

Now, the spirit of our times is one of inquiry and investigation, a spirit of organized effort in every direction, a spirit of enterprise. It looks upon us each in our professional relationships, as if to say, What are you doing here ; and how are you doing it? The answer to these questions will be given by every true and honest man, "I am laboring earnestly and faithfully that I may attain success." It is a fact that all men do not succeed, however, because all do not

* Read before the Ontario Dental Society, Toronto, July, 1895.

possess the elements necessary to success, or, if possessing them, do not make a proper application of them to secure that end.

It is a trite saying that education is the key-stone to the arch of success, consolidating, strengthening and making permanent all the other elements entering into the arch.

By the term education, as applied to dentistry, we shall mean particularly the training of the mind, the hand and the eye. I would put judgment as a first and most essential element, for without judgment which is progressive with experience, a man may possess a good theoretical knowledge and lacking the ability to a practical use of it, may be a failure. "He should as early as possible perfect himself in a knowledge of the principles and science underlying his profession, and in the manipulative parts of it, so as to do always what is best for his patients." Again, lying at the very foundation is manliness. He must be made of the right kind of timber, possessing natural as well as acquired qualifications for his work—broad-minded, liberal and of a warm, hearty and responsive nature; of an inquiring mind, keeping abreast of the times. He must not be deterred by criticism or opposition, but put his aggressive, intelligent and comprehensive spirit into his work—must love his work, and by wise tact, persistent effort and resourceful activity, rise above anything which would hinder him from doing the very best his circumstances will allow. He should possess a high faith in himself and his work, a strong will and a vigorous body.

We are living in a progressive age, and members of a progressive profession. Dental art is developing every day with wonderful rapidity. The time was when men, uncultivated and illiterate, were, after a year or less spent in some obscure dental laboratory, turned out to practise their so-called art. Not so now, however; for among the evidences of our progress I remind you that our profession is yearly being recruited by men of more scientific instincts and aspirations, and dentistry is recognized as an honorable profession, having generous men of culture and scientific attainments, who, instead of seeking to conceal their own ignorance, as then, are endeavoring in every way to enlighten the public and benefit mankind. The restoration to health, the prevention of disease, the instruction of the people in what is right, showing them how to avoid disease—this is the prominent work which must raise us above the sphere of mere mechanics to the dignity of a profession commanding the highest respect of the public and paving the way to successful service.

What we most need is that broad, liberal culture which fits us first to be the teachers of the people, and then that philanthropy which is characteristic of the highest quality of wisdom.

Every man should have a right aim at the objects of his work,

not looking upon it merely as a means of getting a living for himself and those dependent on him. Is it not a fact, however, that the first and foremost thing many of us concern ourselves about is the dollars—not those qualifications which would make the reward inevitable, as if we would seize the prize at the goal without earning it in the race?

Now, financial success in any trade or profession is the result of definite rules, and may be achieved by anyone who observes the rules and possesses sufficient intelligence and force of character to apply them. This one qualification must always be observed, however—he must be proficient without which failure be the result.

It is commensurate with the amount of business one can command, other things being equal. Theoretically, the ideal dentist, aiming at professional success, should have less concern about his income than how he can render the best service to his patrons, treating rich and poor alike, and doing for each what his best judgment dictates, thus leaving financial conditions to follow as a result of honest endeavor. Practically, we cannot always do this, however, as the materials used are mostly of a costly character, preventing their use often in consequence of the inability or unwillingness of the patient to pay the fee, even moderate though it be. I will venture the assertion, however, that if we give all the help we can in our sphere of usefulness to others, complying as far as possible with the conditions of success, the eternal law of recompense will be made good. An unselfish, honorable ambition is an excellent quality for one to cultivate; a laudable ambition which incites a man to win success for himself, and thereby elevate the dignity of his profession; an ambition, creating an enthusiasm and devotion to his work, and a desire for increase of knowledge. It is easy to work the muscles when the mind is enlisted in the service. To hold your place, put purpose in your work. If you will consider it a slavery, it will be so. If you make it a stairway by which to ascend to better things, it will be so. Degrade your work by unprofessional tactics, and you will go down in the public estimation. Lift your work up by every honorable means in your power, and you will mount with it. "Seest thou a man diligent in his business? he shall stand before kings; he shall not stand before mean men." Do your work with your whole soul. Let your motto be, "The best I can do is the worst I will do."

Ethics is nothing more than a system of morals, so plain that any man with sufficient intelligence to enter our ranks may read and understand while he runs; but instead—and not to our credit—we find men in our ranks who are not sufficiently honest to allow their intercourse to be governed by the natural instincts of gentlemen, acting in utter disregard of the code by which they should be governed, and engaging in deception, empiricism and humbuggery,

thinking thereby to gain an advantage over their *confreres* and superiors. We sometimes find them exhibiting a miniature set of teeth for a charm, or a set of forceps on their shirt-front, or a gold-filled tooth for a setting on a ring, or at the entrance to their rooms the cranial remains of someone who has passed to the majority, containing a set of artificial teeth, or a card in the papers almost as large as the man's mind, under which may often be seen the good news to those who may be unfortunate enough to read it, somewhat after this manner: To all parties calling at my office, from _____ railway station, and having \$_____ of work done, I will pay return fare, or \$10 sets of teeth for \$5, etc., etc.

A moderate card in our daily or weekly papers will be seen, and if we are worthy of the confidence and patronage of the public we will have our fair share of work.

Attention or inattention to little things makes the difference between success and failure. We cannot afford to overlook our duties to our patients. It is necessary that we make a study of our personal presence and surroundings on those who come within our reach, doing all in our power to make things pleasant for those who wait on us, such as a strict observance of cleanliness, which is akin to godliness, as to our clothing, hands and our instruments, etc.

A dingy, dirty office, the effluvia of unclean spittoons, or an untidy appearance, is certainly very offensive; but if there is anything more offensive to a patient than another it is unclean hands and a foul breath, which is often the result of the use of claret, tobacco, etc., neither of which should be used by the ideal dentist. It is necessary, too, that we provide an attractive reception room, comfortable and airy, allowing nothing there which would remind one of being in a dental room.

The operating-room and laboratory should be well appointed, too, and provided with everything necessary for the best work, having a place for everything and everything in its place, thus holding ourselves at all times prepared to give our patients the kind of treatment they need. In order to do this we must read and keep posted in all the latest discoveries, and, so far as possible, furnish ourselves with the latest and best improvements.

A high sense of right should guarantee faithfulness in the performance of all operations. We should encourage dental education in the community, disseminating correct views of the power of dental science and art. We should talk familiarly with our patients, giving a civil and intelligent answer to their questions (even though they may sometimes be ridiculous), instructing them in general principles, and bringing them to realize the need of a skilful dentist possessing a knowledge of science and art. Only quacks refuse to answer a fair question with a view to giving instruction, and thus try to play on the ignorance of their patients. Nor is our duty done

when we have dismissed the interrogating patient, for now we have the distrustful one, who does not believe in the preservation of teeth because some friend or acquaintance has had teeth filled which have been a failure. The dictating patient now appears on the scene. This patient knows more than the dentist, and would have all operations performed under his or her direction. Now, how to treat such patients successfully and retain your professional dignity is often a difficult matter to solve. It is under such circumstances that we must let "patience have her perfect work." To become irritable and fly off on a tangent will result in certain failure.

If the dentist be a gentleman possessing the right professional material he will not be deterred from giving the right advice under all circumstances in an honest and candid way, leaving the patients at full liberty to decide for themselves. "Whatsoever a man soweth that shall he also reap."

A cheerful, gentle, sympathetic manner cannot be over-estimated when meeting our patients in the reception room, whether our liver be performing its functions or not. Whatever the annoyance or nervous strain in the operating-room or laboratory may have been, put on the most cheerful and happy appearance possible, remembering that by attention to these apparently minor details you will gain the confidence and rise in the estimation of your patients, and good results must follow. We must not forget either that an important factor in our success is a strict observance of the professional duties we owe to each other. The Golden Rule, "Do unto others," etc., would be an excellent motto to decorate the wall of every dental reception room, and let us hope the day is dawning with the advance of education and the impressions made in our dental schools by professors when this rule will be put into practice by every dentist in our fair Dominion, thus linking us together as one grand brotherhood striving for the elevation of our profession to the position which it is destined to occupy, second to no other in the land. Yes, let us exercise that broad charity to our brothers in the profession which will enable us to speak only of the good qualities of one another, being careful to say nothing ill. It is an evidence of a small mind in a man who will try to climb to prominence over the faults or misfortunes of others.

And now, before closing this paper, there is another part of this subject that I am not willing to overlook. There are public duties that we cannot afford to ignore. Our obligations to society must ever be kept in mind, remembering that society has its own way of getting back at the man who is so much absorbed in his own work, that he has apparently no time outside of his office for sociability, or for lending his influence in the right direction touching public questions, moral and financial.

Let me say in conclusion, that after all that has been said, it is the quality of a man's work that tells for success, providing that it is done with the least amount of pain, as in this progressive age in dentistry our patients are properly looking to us for the best work with the least pain that the circumstances will allow.

And finally, friends, let us each as honorable men and practitioners ever keep before us this motto, "The best and the highest," remembering the words of Bacon: "I hold every man a debtor to his profession; from the which as men, of course, do seek to receive countenance and profit, so ought they of duty to endeavor themselves by way of amends to be a help and ornament thereto."

Proceedings of Dental Societies.

Ontario Dental Society.

TORONTO, July 16th, 1895.

The seventh annual meeting of the Ontario Dental Association was held in Assembly Hall, Confederation Life building, Toronto, Dr. C. E. Klotz in the chair.

Dr. Brownlee, the secretary, read the minutes of the last meeting, which was held at Kingston. Declared correct and confirmed.

The president named Drs. Husband, Wood, Frank and Baird as Membership and Ethics Committee.

That as many as possible might take part in the proceedings, nominations for membership were next taken up, and resulted in the following elections: Drs. J. A. Smith, Windsor; W. M. Bruce, Listowel; Way, St. Thomas; Coram, Drayton; Reid, Fergus; Herrington, H. E. Adams, Martin, Loftus, Waldron, Nichols, Brooks, Josephine Wells, Toronto; McGuire, Waterford; Frith, Winchester; Eakins, Windsor; McKenzie, Cannington; Kennedy, Tilsonburg. On being accepted by ballot, they signed the constitution, paid their fees, and were enrolled full members.

Election of Officers: President, Dr. W. A. Leggo, Ottawa; Vice-President, Dr. Brownlee, Mount Forest; Secretary, Dr. J. A. Marshall, Belleville; Treasurer, Dr. C. P. Lennox, Toronto. All by acclamation.

The treasurer's report was read and passed, after the audit by Drs. Baird and Allen.

Retiring Secretary Brownlee read his report, which was passed.

Dr. Brownlee gave notice of motion to amend Article 4, Section 2, of the Constitution, respecting Executive Committees.

Dr. Leggo gave notice of motion to amend the Constitution respecting time of annual meeting.

Moved and seconded by Drs. Marshall and Baird, that as Dr. Eidt cannot attend to give his paper at 9.30 a.m., of the 17th, Dr. Lennox be solicited to give his clinic in its stead. Carried.

On motion, the session adjourned to meet at 8 p.m.

July 16th, 8 p.m.

The president and secretary elect were escorted to their positions.

Dr. Bruce, Listowel, gave a paper, "The Elements of Success in a Modern Dental Practice."

A very spirited discussion was opened and participated in by Drs. Lennox and Willmott, Toronto, and W. G. Beers, Montreal, who touched most strongly on the deplorable condition of unprofessional advertising.

Paper No. 2, "Local Anæsthesia," was by W. A. Leggo; Ottawa.

Dr. J. B. Willmott lead the discussion in which several of the members freely expressed their opinions.

On motion, the Association adjourned to meet in the morning.

July 17th, 9.30 a.m.

A clinic, by Dr. Lennox, demonstrated the excision, treatment after extirpation of pulp, striking up and setting a seamless crown on living bicuspid, in one hour; exact time, forty-three minutes.

Question No. 1.—"What would you do with a nerve canal that will not admit a broach?"

There are phases of this question which will need to be explained in order to properly understand the answers. 1. When nerve canals are closed by the addition of hard structure, as by age or inflammatory action, or whatever process nature sets up to close them until they are nearly obliterated, I would not spend much time in tracing them out, as they seldom or never give after trouble. When, after applying a devitalizer, we find the disto-buccal root canal in an upper molar too small to admit a broach, I use the finest Morey drill to enlarge it, and pursue the canal as far as possible, either to the end or to a bend, which puts an end to my pursuit. If I had any reason to fear after trouble from the spicula of nerve still remaining, which is not likely after treatment, I would apply tannic acid and cloves in glycerine for a few days, sealing the crown with temporary gutta percha. The glycerine is a happy medium for conveying drugs, for if you apply it to a corn on your toe at night you will find it in your eyebrows in the morning. My experience, if it is worth anything, goes to confirm the Herbst method so far that, if there is a little nerve too fine to remove or beyond reach, no harm is likely to come of it, although I totally disagree with the idea of devitalizing and not removing all that it

is possible to do. In case I open a tooth into the pulp chamber which is occupied by a decomposing or dead pulp, or even where the tooth is abscessed, I do not look for the cause of the trouble in the buccal or small roots, but expect to find it in the larger ones, although I do not go so far as a distinguished Indiana dentist, who says that in that state teeth do not abscess on the buccal roots, and such a thing was never known to occur; for I believe that I have seen teeth with a pea c^c abscess on every root it had. In case I found it necessary to pursue a canal to the foramen for treatment of abscess or sterilizing, and the canal was too small or too crooked for instrumentation, I have found that aromatic sulphuric acid works surprisingly well. In lower molars I address my attention to the distal root principally, and, if the anterior root does not admit of a free use of the broach to extirpate, I try to enlarge it to the extent possible, and occupy the space with gutta percha and chloroform or encalyptus. Now, in conclusion, I will answer the question asked by saying that, if a nerve canal is of a size that will not admit a broach, it is a very innocent canal, and the chances are that no trouble will ever arise with ordinary anti-septic treatment. If it is of a shape to exclude a broach, and still large enough to contain elements of danger by decomposition, it would be unwise to fill the tooth while this remained. I would either wait the decomposing process to remove the soft tissue, or render it harmless by tannic acid and cloves or chloride of zinc, or digest it with a solvent, wash with pyrozone and follow with alcohol, dry it thoroughly and fill as usual.

N. PEARSON.

Question No. 2.—“What is the best method of diagnosing a case of exostosis without the aid of forceps?”

The diagnosis of exostosis without extraction is a difficult matter to the ordinary practitioner. One would require to have numerous cases to which special attention and close observation be given, so that approximate accuracy might be obtained.

Exostosis, an excrescence or morbid enlargement of a bone. (Medical Dictionary.) This abnormality consists in an excessive development of the cemental tissue of the roots of the teeth. The condition has been treated of by various authors under the title of exostosis, dental exostosis, hyperostosis, excementosis, dental ostoma, etc. But the term hypercementosis defines the condition more exactly, according to the opinion of S. H. Guilford, A.M., D.D.S., in “American System of Dentistry.” (See the latter work for an explicit definition of the cause.) For the present purpose I may be allowed to use another extract, which I think will help to make the subject more intelligent. Tomes says: “If the extremities of the fangs of a tooth be but slightly increased in size, either by hypertrophy of the cementum or by the growth of any other tumor, the dental nerve may be thereby disturbed, and hence sympa-

thetic pains may be induced in any of those parts with which the nerve is connected." I conclude from what I have read on the subject that the symptoms for diagnosis resemble somewhat the symptoms accompanying other maladies of the teeth, such as nodules, congested pulp, inflammation, or pulp irritation. Teeth affected with exostosis which I have extracted, were carious with lifeless pulps. Therefore, if such a tooth be affected with symptoms resembling pulp irritation, exostosis would likely be the cause. When pain is confined to the tooth and its socket and sensitive to concussion, it would be exceedingly difficult to tell the difference between exostosis and abscess unless after a number of days of painful waiting no distention of the parts by congestion ensues. I believe that with the knowledge we possess and employ for the treatment of the fangs of teeth, many cases of exostosis are cured, but never diagnosed. Such being the case, of what use is diagnosis, and if extraction is imperative, diagnosis becomes feasible—aye, easy and positive.

C. A. MARTIN.

N.B.—I keep a fine specimen of exostosis, which I have reason to recollect, a lower bicuspid. I had to break the alveolar wall down to near the apex. It resembled the attempt to pull a nail out of a board point first.—C. A. M.

The diagnosis of exostosis under the condition mentioned is one, which after more than a quarter of a century's practice, I have failed to find any symptom reliable.

The bulging of the alveolus is possibly the easiest diagnosis; however, when no corresponding enlargement presents itself, we must look elsewhere.

A patient is presented for treatment. Teeth in good order as regards filling, teeth devitalized, mucous membrane healthy, no outward symptom. Suffers from neuralgic pains, which are more acute at night than during the day. After various treatments, pain still continues. Examine isolated teeth, especially those doing an extra share of mastication. These teeth are most likely to be affected with the lesion.

GEO. HUTCHISON, L.D.S.

We believe there is no certain method of diagnosing a case of exostosis without the aid of the forceps, yet by the process of exclusion one can locate the pathological conditions with a certain amount of accuracy. A tooth giving trouble, which we know is not from exposed pulp, periostitis, alveolar abscess, pulp nodules, inflammation from adjoining tooth, protruding filling on masticating surface, or at or under gum margin; excessive accumulation of salivary calculus, metallic filling too close to pulp, imperfect capping of pulp—all of these being excluded, we would then suspect exostosis.

The cause of exostosis would be some long-continued irritation,

not sufficient to cause suppuration, but merely to stimulate the formation of cementum through the periosteum. Such irritation might be caused by formation of pulp nodules, which would extend to periosteum, and so stimulate it that most likely a certain amount of exostosis would be produced; mal-occlusion or imperfect articulation, excess of function as in bridge-work, where a tooth is given abnormal strain. A tooth able to bear this strain would, instead of being loosened, become more solid because of osseous union, caused by excessive development of the cemental tissue. Pain of exostosis could not be confounded with pulpitis, periostitis, abscess, etc.

Temperament should be considered. We would never suspect exostosis in poorly-developed, chalky teeth, but in the more perfect variety as found in individuals of marked vitality, especially from middle age up.

So in conclusion we would say, given a tooth after applying the process of exclusion and finding some one or more of the causes above mentioned, we would be justified in diagnosing exostosis.

ROBERTSON & MARTIN.

Moved and seconded by Drs. Brownlee and Brimacombe, that Article 4, Section 2, shall be amended to read as follows: The Executive Committee shall consist of the officers of the Society and one member from each electoral district. Carried.

Moved and seconded by Drs. Leggo and Klotz, that the regular meeting of this society shall be held on the second Tuesday of July of each year, at such place and hour as the Executive Committee decide.

In amendment, by Drs. McLaughlin and Husband, that the annual meet shall be in the second week of May. Lost.

Dr. C. E. Klotz moved, that Mrs. Dr. Josephine Wells, of Toronto, be accepted as a member of this society, and in a few well-chosen words proposed, that as the first lady dentist on our list she shall be made an honorary member with full privileges of the Society, which was seconded and carried unanimously.

A letter was read from Dr. Willoughby soliciting the recommendation of Mr. W. Rolstin as a beneficiary student to Baltimore Dental College.

On motion by Drs. Brownlee and Husband, it was decided not to do so, and the Secretary was instructed to notify Mr. Rolstin. Association then adjourned till 2.30.

Dr. Klotz, the retiring president, read his address, which will be found on another page.

Dr. Butler, of Buffalo, gave an admirable paper in most masterly style, entitled "Pathological Conditions of the Mouth Due to Artificial Dentures."

Question No. 3—"Can alveolar abscess arise after complete sterilization and filling of canal? If so, from what cause?"

My answer to the question, as it stands, is yes, most assuredly. And, moreover, it will certainly arise if at the time of filling the alveolus is not in a perfectly healthy and normal condition. In case the filling is inserted before any septic matter has entered the canal or inflammatory conditions surround the root, that is, if left in a perfectly ideal state, an alveolar abscess cannot arise except from external causes, such as a blow, mal-occlusion, overwork, or possibly, as some assert, in cases where patients are of a gouty or rheumatic diathesis, or in anæmic patients there may possibly be a "reflex sympathetic expression of a disordered function of some remote organ." Lastly, in case an alveolar abscess has previously existed, the root been subjected to the usual course of treatment and filled as stated, when apparently the tooth and all its surroundings are in a desirable condition, and months, sometimes years, after show no indications of unrest or disorder, an alveolar abscess may still arise from any one of the following causes: Irritation of the peridental membrane from a slight projection of the filling, a rough margin round the apical foramen, several deposits of calculus on the root, injected pus pockets the remains of previous abscesses, root denuded through chronic abscess, absorption of root, chronic apical pericementitis, where the bone of the peridental membrane has been previously irretrievably lost. Any of these conditions may exist for months or years in health, but when the patient becomes anæmic, debilitated, or even at any time when the excretory organs fail to do their proper work an abscess may follow from this alteration of the nutrition functions. In this case there may also be irritation from overwork, blow, mal-occlusion, exposure, irritation from adjoining tooth. DR. MOYER.

Dr. Allen said no restoration is complete and that trouble is at an end.

Dr. Willmott opened the discussion very ably and asked that Dr. Teskey give his views on pus formation. This proved to be very interesting and lively, the principal participants being Drs. Butler, Johnston, Willmott and Teskey, whose views were not exactly in accord with those of Drs. Butler and Johnston. These three plunged into the depths of the question from its inception, and although some admitted that the water was dangerously deep still they waded manfully through.

The session adjourned till 8 p.m.

"Pyorrhœa Alveolaris," the next paper, by J. A. Marshall, was characterized by observation and study of the subject. The essayist expressed doubts about the wonderful cures professed to have been made by some even in advanced conditions, but

avored thorough and persistent treatment in order to reduce in acute and retard in chronic cases whereby the most comfortable and useful condition of the natural organs may be retained.

The paper elicited a lengthy discussion of many of the points mentioned. Dr. Simpson, of Trenton, who was to have opened the discussion, through illness was not able to attend the meeting, but Drs. Willmott, Butler, Johnston, Snelgrove, Wood, Abbott and others went over the ground in a very harmonious and instructive manner.

The last paper, entitled "The Care of Children's Teeth," was given by Dr. W. Adams, Toronto, who dealt at length with a very important branch of the dental profession. The evening being advanced, the paper was passed without discussion.

Session adjourned.

July 18th, 9.30 a.m.

This session was devoted to clinics.

"Casting Aluminum," by Dr. F. Adams.

"Porcelain Bridge." Dr. Capon being out of the city, Dr. J. A. Marshall demonstrated in his stead.

On motion, the meeting was adjourned to meet at St. Catharines, on the second Tuesday of July, 1896.

W. A. LEGGO, Ottawa, *President*.

J. A. MARSHALL, Belleville, *Secretary*.

Selections.

Discussion of Dr. Eschelman's Paper.*

By DR. C. S. BUTLER, Buffalo.

[At the meeting last month in Toronto, Dr. Butler took part in a discussion on "Inflammation and Pus-Formation," in reply to Dr. Teskey. As several of the members present have asked us to reproduce the remarks made by him in reply to Dr. Eschelman's paper on "The Etiology of Pus-Formation" read at the Union Convention in Buffalo, we copy it from the *Cosmos*.—ED. D. D. J.]

In the whole realm of pathology there is no single phenomenon of greater significance, nor which has received more serious and earnest study, than the "etiology of pus-formation," and concerning which there have been so many and such divergent theories, especially during the past quarter of a century, where theories have succeeded one another in such rapid succession that one can do little more at the present time than survey the field upon which pathologists have so fiercely contended for the supremacy

* "The Etiology of Pus-Formation." See *Dental Cosmos* for February, page 143.

of their own views, and which is strewn with broken-down and abandoned notions concerning the inflammatory phenomenon.

To confine this discussion strictly within the lines laid down by the essayist, we have simply to inquire, "*What causes pus?*" and any study by which this question may be answered is inseparable from a consideration of inflammation, which, though not the initial lesion, is nevertheless an ever-present accompaniment of suppuration; and just here the essayist is quite misleading when he says, "Superficially studied, pus would seem to be the product of inflammation; but this cannot be, for inflammation does not always form pus." If what the doctor intended saying was that inflammation *was not* the primary cause of suppuration, otherwise it would under all circumstances produce pus, no fault could be found with his teaching, for it is a well-established fact that the primary or initial lesion is cell-irritation, generally, if not always, caused by micro-organisms; *but pathologically there can be no suppuration without inflammation*, and the reasons why pus does not always follow as a result of inflammation will appear as we proceed.

The nutritional theory of inflammation put forward by the essayist, and announced by Virchow in his "Cellular Pathology" in 1871, is not sufficient to account for all that is now known regarding this phenomenon.

The similarity of expression observed in the higher orders of the vertebrata, especially in man, and which has been termed physiological and pathological nutrition, is only apparent, not real. The flushed cheek, accelerated pulse and increased peripheral temperature are expressions of a vascular and nervous system in a healthy though somewhat excited condition, and can no longer be considered expressions of cell-irritation in the sense they were so regarded by Virchow and others.

In a long series of experiments that seem conclusive, it has recently been shown that while the vascular and nervous systems greatly augment the inflammatory phenomenon, *it is in no sense dependent upon them.*

In a course of lectures on the "Comparative Pathology of Inflammation," delivered at the Pasteur Institute in 1891, Professor Elias Metchnikoff undertook to show that what is known in the vertebrata as suppurative inflammation exists also in the invertebrata, even tracing it downward to the lowest forms of animal life—the amœba, protozoa and infusoria. So thorough had been his researches, and so convincing the arguments put forward in support of his views, that the leading pathologists of Europe and America at once accepted them as correct, and have since changed their teachings on inflammation to conform to the new doctrine; and there is no doubt that the researches of Metchnikoff "will cause a revolution, inasmuch as he has conclusively shown that

inflammation is not dependent upon the vascular system, but may occur in tissues devoid of blood-supply."*

Thus, like so many of its predecessors, falls the nutritional theory of Virchow, which assumed that "a greatly increased flow of nutritive substances took place toward the inflamed part; that, in fact, inflammation began from the moment nutritional derangement occurred, said derangement consisting of the attraction of large quantities of nutrient substances, so that the cells of the inflamed organ received an excessive amount of nourishment at the expense of the blood-supply."

So, too, with the vascular theory of Samuels and Cohnheim, introduced by the essayist to explain the crowding, in active inflammation, of the intercellular spaces with leucocytes and red blood-corpuscles. These eminent pathologists held that "inflammation consisted essentially in a molecular lesion of the vascular walls; that the latter, modified by some injurious agency, lost its power of retaining the blood-corpuscles, which therefore, in consequence of the force acting upon them, were driven out of the vessels, and then wandered toward the part of least resistance."

Compare these theories of Virchow and Cohnheim with a few sentences from Metchnikoff, and a wide discrepancy will at once appear. He says, "The study of inflammation in cold-blooded animals teaches us that increased temperature is not a necessary factor, and that the analogous reaction in the invertebrata proves that inflammation may occur without any intervention on the part of the blood-vessels." What, it may be asked, will be the effect of this new doctrine upon the generally accepted theory of suppuration? It is to be regretted that Metchnikoff should not have gone a step further and given us a chapter on pus-formation, though his promise to do so in the near future warrants the anticipation of a rare treat in the studies of comparative pathology when the results of his labors in this direction shall have been given to us. Meanwhile it is probably safe to assume, as the essayist has done, that the initial lesion is due to micro-organisms, and that true pus is unquestionably the product of pyogenic bacteria.

I say true pus, for we cannot longer apply that term to everything having the appearance of pus; only that which contains bacteria, and is capable of propagating itself when engrafted into culture-media, is now regarded as pus. (Park.) The process by which the formation of pus is brought about is styled by Metchnikoff as a struggle between two living species, and by Virchow as "a battle of the cells." The pyogenic bacteria, which are generally if not always present in tissues of the body, make an attack

* Parmenter.

upon some vulnerable organ, and instantly leucocytosis is established and a desperate battle ensues. The leucocytes englobe and digest the bacteria, while the latter by their toxic action overcome and destroy the leucocytes. Whenever in the course of the struggle the leucocytes are able to gain a mastery over the bacteria, resolution takes place, and the inflammatory phenomena subside without suppuration. On the other hand, the bacilli gaining the mastery, the myriads upon myriads of leucocytes that are thrown into the encounter are overcome, and suppuration results.

For many years it was generally thought that the leucocytes which gathered in an inflamed area acted only as scavengers by absorbing dead cells and microbes, but it is now known that they do more than this, and from the very onset of infection wander toward and englobe the parasites in a living condition ; and as the process here described is precisely the same in the protozoa as in the vertebrata, it follows that their migratory power is due *not to the vascular circulation*, as has been supposed, but to their amoeboid character.

It has also been shown that the action here described as taking place outside the vascular tissues occurs also within the vessels themselves, and explains the comparative immunity from suppuration from the presence of pathogenic organisms in the blood-stream, as in recurrent fever when the blood is crowded with spirilla, yet without diapedesis ; the leucocytes devouring the bacteria within the blood-vessels. So, too, with the anthrax and tubercle bacilli, which, though highly infectious when injected subcutaneously, cause no inflammation in the sense used by Cohnheim when thrown into the blood-current. By this it must not be assumed, however, that suppuration never occurs within the blood-vessels, embolic abscess being a good illustration of the power of bacteria to gain the mastery even here when the conditions are especially favorable for their propagation. If, then, the etiology of pus-formation is a "battle royal" between two living organisms, why is it that certain highly infectious diseases, like chicken cholera, septicemia of guinea-pigs and pigeons, and many others, terminate fatally, with little or no apparent attempt on the part of the phagocytes to withstand their onset ?

It was found by Binz some years ago, in a series of experiments, that no diapedesis took place through the frog's mesentery after this had been moistened with a solution of quinine. As quinine acts poisonously upon protoplasm, it was concluded that it paralyzed the leucocytes, which were consequently unable to pass through the vascular wall. The same experiments were repeated by Disselhorst, who confirmed the fact that diapedesis ceased, but was astonished to find that their movements were not paralyzed, for

when removed from the vessels the leucocytes showed their wonted amœboid activity. In order to explain these facts, Disselhorst maintained that the assistance of the vessel-wall was indispensable for the passage of the leucocytes, and that the diapedesis was prevented by the action of the quinine upon the wall. In his arguments no account is taken of the chemiotaxic property of the leucocytes, which was not at that time an accepted fact.

If this function be admitted—and there no longer seems any doubt of its existence—the effect of the quinine may be referred to as a negative chemiotaxis of the leucocytes, which, while retaining their mobility, do not move toward the part moistened with it, but are able, while still within the vessels, to detect the presence of the obnoxious substance. This negative chemiotaxis explains the inaction of the phagocytes in the infectious diseases above cited, as it is a well-known fact that their microbes are not englobed by the leucocytes when brought in contact with them.

From the foregoing we must conclude, then, that the “essential originating factor, the *primum movens*, of inflammation, consists in a phagocytic reaction on the part of the animal organism. All other phenomena are merely accessory to this process, and may be regarded as a means to facilitate the access of the phagocytes to the injured part.” (Park.)

To conclude this discussion, I cannot better sum up the whole matter than by quoting a short paragraph direct from Metchnikoff himself, in which he says, “The study of inflammation from the point of view of comparative pathology proves, first of all, that this phenomenon is essentially reactive in its nature. The organism, threatened by some injurious agency, protects itself by the means at its disposal. Since, as we have seen, even the lowest organisms, instead of passively submitting to the attacks of morbid agents, struggle against them, why should not the more highly developed organisms, such as man and mammals, act in the same manner? We must conclude, then, that the invaded organism fights against the injurious cause; but in what way? As the evolution of inflammation shows, it is this phenomenon itself which is both the most general and the most active means of defence among the animal kingdom.”

The Question Drawer.

Address all correspondence connected with this Department to DR. R. E. SPARKS, Kingston, Ont., Can. Matter for publication should be in the hands of the Editor not later than the 10th of each month, and must have the writers' names attached, not necessarily for publication, but as a guarantee of good faith.

14. Q.—A lady appears with pulp dead in left lateral incisor; tooth perfectly sound. Explained that she had a violent toothache soon after having been driving on a very cold day; knew of no other cause. Could that cause it?

Possibly may have been the exciting cause, but, we think, not the primal. Why were the other teeth, equally exposed, not equally affected? The pulp had probably been devitalized by some injury, as, for instance, a blow received from injury, or in a collision while at play, and which had passed and been forgotten. The dead pulp remained passive, waiting for some cause to excite the inflammation, which usually comes sooner or later in such cases, and which, in this case, seems to have been the exposure to severe cold while driving. A lady recently informed us, in all earnestness, that in the North-West, where she lives, "people's teeth freeze solid, thereby becoming very brittle." It could scarcely have been so in the case under consideration, as the lady did not live in the North-West. It would be interesting to the readers of the JOURNAL if the querist would give us his treatment of the case and the result.

R. E. SPARKS, Kingston.

15. Q.—Miss J.; aged about 25; general health good; teeth ordinarily sound; enamel gone from palatine surface of six anterior superior teeth; surface hard, but dull; very unlike general appearance of notches often found on labial surface of anterior teeth. To such an extent had the wasting gone on that an amalgam filling previously inserted in the palatine fossa of left central incisor, but which had not been affected by the abrasion, stood out like the pin of an artificial tooth. 1. What caused it? 2. What remedy?

The data given do not show that in this patient—"aged about 25; general health good"—the condition arose from constitutional causes. Neither would it appear that the usually assigned causes—abnormal acidity of the oral secretions, etc.—would produce a condition "very unlike general appearance of notches often found on labial surface of anterior teeth." Has the palatal mucous secretion nearest the affected tooth surfaces been tested for acidity? Has she been in the habit of sucking lemons, rhubarb, tomatoes or other acid fruits or vegetables, lemon drops or candy flavored with tartaric or other acids? It seems to me that proper investigation would prove the cause to be local. My treatment would be porcelain veneers, restoring the natural shapes of the teeth.

A. STACKHOUSE, Kingston.

Questions.

18. Q.—A lady, aged 20; health good; teeth kept in good healthy condition. About two years ago the right superior central began to protrude and elongate until it stood about one-fourth inch beyond the line of the arch. The tooth is sound and healthy; no crowding in the arch and no diseased teeth in the mouth. What is the cause and treatment?

19. Q.—What is the Hale method? Does it depend on cocaine for its anæsthetic effect?

T. L. HALLETT, St. John's, Newfoundland.

Editorial.

Important Meeting—Quebec Association.

Probably the most critical meeting ever held in the history of the profession in Quebec will be that for the election of a new Board of Examiners, in Montreal, on the third Wednesday of next month (September 18th).

We have received communications from several sources, bearing upon the important questions of studentship, examinations, etc., for which we regret we cannot find room. But no licentiate can afford, for personal as well as professional reasons, to absent himself from this meeting. The prospect of a division in the ranks for the first time in our history, brought about by causes which could be easily removed to the satisfaction of all concerned, make it imperative that every licentiate should endeavor to be present. We have purposely avoided allusion to questions which are now agitating the profession, in the hope that silence would prove to be golden. The honor of the profession in Quebec is at stake.

Chapin A. Harris Memorial Fund.

It has been a reproach to us, as a profession, that up to this date no memorial marks the neglected tomb of the father of American dentistry, Dr. Chapin A. Harris. It is true that in every dental library we have monumental tributes to his originality and genius, in the "Principles and Practice of Dental Surgery," and the "Dictionary"; but the founder of the first dental college, and one of the editors of the first dental journal; as one of the men who from the beginning of his career never sullied his record by a single selfish or suspicious action; as an operator of supreme excellence, and a perfectly impartial investigator, the memory of Chapin Harris will remain forever green. Messrs. Snowden and Cowman, 9 West Fayette Street, Baltimore, have consented to act as custodians of the "Harris Memorial Fund." It is proposed to erect over the grave of Dr. Harris a portrait bust, as well as to place memorial tablets containing an *alto relievo* bust of the Doctor in the two colleges in Baltimore.

It would be very fitting if the dentists of Canada would add a Canadian contribution to the fund. We hesitate to offer more than the simple suggestion, as we know the demands upon the profes-

sion have been specially large the last year. However, we shall be very glad to make this journal the medium of a fund for the purpose, and in order to make it thoroughly representative, we would propose to limit the amount from each subscriber to one dollar. The names and addresses of contributors will appear in the JOURNAL; and the amounts will be remitted to Messrs. Snowden & Cowman, and their acknowledgment published. We hope our readers will not overlook the matter. We would suggest to the promoters in Baltimore some form of postal-card personal acknowledgment.

Reciprocal Interest.

Dr. Klotz, in his address before the Ontario Dental Society, emphasized the importance of more personal assistance for the JOURNAL. Anyone in the least familiar with scientific or literary journalism in Canada, will acknowledge, that with the tremendous competition from the many splendid foreign periodicals, it is next to impossible to make a Canadian venture a thorough financial success. It is possible, however, to do sufficient by personal sacrifices on the part of publishers and editors, to give us journals of our own, and to remove the opprobrium that we have to depend exclusively upon the generosity of our neighbors. It is not possible for an editor to give the time and attention which he would perhaps find congenial if he had nothing else to do. But we are quite sure, after an experience of over twenty-five years, that the profession as a body have a feeble conception of the continuous demand upon an editor, not by any means in the work that is seen in the pages of the periodical, but in the fact, that from all sources, and upon all subjects of interest and of no interest, the dentist who "wants to know," fixes upon the editor as the most convenient centre of information. The work that is seen in the journals forms a very small part of the duties of the editor. It is but fair to remember, that while this and more is done willingly, there should be more reciprocity. This journal is not published as a financial speculation. Indeed, the number of delinquent subscribers, the men who owe the publisher several years' subscriptions, and who kick up a rumpus if they miss one issue, would lead one to believe that there are people who think they pay the publisher a compliment by receiving regularly a journal for which they never think of paying. Publishers and editors could invest the interest they have to much better-paying advantage. They have no direct or collateral interest to serve. They simply realize that "every man is a debtor to his profession, and ought, of duty, to endeavor to be a help thereunto." Publishers and editors try to fulfil this law. Our contributors and paying subscribers do their share. Our advertisers do theirs, and certainly merit the patronage of the profession.

Overcrowding and Fees.

One of the inevitable results of an overcrowded profession is witnessed in the resort to trade methods of advertising, and depreciation of fees. In spite of ethical preaching and the high-toned advice of maturity, our newspapers daily present the public with various catch-penny advertisements, setting forth inducements in the shape of "painless" dentistry, as well as cheap dentistry, which bear upon their face the masks of fraud as well as falsehood. Occasionally we find one who, by the boldness of his pretensions, and the ingenuity of his deception, succeeds in swindling his patients out of fees far beyond the value of the services rendered. But it is a well-known fact that within the last few years, while the cost of being a dentist, as well as a citizen, has nearly doubled, the average fees have fallen off nearly one-third, and the depreciation among some practitioners has continued until it has in many instances reached the very lowest level above actual cost. This is due to no other cause that we can surmise, than the overcrowding of our ranks—and yet the production is apparently on the increase! What is to be done about it? When the public observe that licentiates have dropped the fee, for instance, for a vulcanite set from twenty-five dollars to twenty, then from twenty to fifteen, then from fifteen to ten, until there are men in Toronto, Montreal and elsewhere advertising to make them for five, the public must surely conclude that in the past they have been badly robbed; or that the depreciation in the matter of fees means, as it does mean, that the advertiser is willing to throw out such a bait in hopes to catch half a dozen fish on the one hook, some of whom can be robbed at leisure and at profit. At the meeting in Toronto, several gentlemen gave it as the result of their experience, that this sort of thing is not only futile in the long run, but that it clings to one's skirts like sin, of which one may repent, but for which he must always carry a certain sense of shame.

It is regrettable that some men who have enjoyed a good education are not free from the charge of open violation of the code of ethics. In the earlier history of the Associations these subjects were more discussed, and some unity of action agreed upon, and it might not be amiss to reserve a portion of one day at the next meeting to ventilate them again, and to obtain practical suggestions, as well as to listen to some of the customary preaching. At any rate, it must occur to most of us, that it is quite time in every way to increase the term of studentship, and to raise the standard of matriculation. A profession so easily entered is easily abused.

THE British Dental Association will meet in Edinburgh, on the 28th. We shall have a special report of its proceedings.