

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from:/
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

THE
CANADA JOURNAL
OF
DENTAL SCIENCE.

VOL. II.]

NOVEMBER, 1869.

[No. 4.

ORIGINAL COMMUNICATIONS.

EDITORIAL NOTES ON PRACTICAL SUBJECTS.

DYSPEPSIA ORIGINATING IN THE ABSENCE OF, OR DISEASE OF THE
TEETH.

BY W. GEORGE BEERS, MONTREAL.

Among the various causes of dyspepsia there are several having a direct bearing on our specialty, wherein our advice and skill as dentists, will often bring about the only permanent cure. I refer to those cases which originate in a diseased condition, or the entire absence of the teeth, and consequent imperfect mastication, deglutition and digestion. Without interfering with the prerogative of the physician,—a breach of ethics against which we should always guard,—we may often remove *the cause* or origin of the disease, and lay the foundation of certain recovery. Without the food is properly masticated, the different glands of the mouth, and the follicles of the mucous membrane are not aroused to activity, and the aliment to be taken into the stomach, is unprepared for the act of swallowing, and chymification. The buccal secretions are absolutely necessary to digestion, though their effect is principally mechanical; the gastric juice being the great solvent. Food insufficiently triturated, and not well mingled with the saliva, is not as soon acted upon by the gastric juice, and indigestion with its numerous attendants, is almost invariably the result. The secretions of the mouth which lubricate the food, are furnished by the mucous membrane, and three pairs of glands—the parotid, submaxillary and sublingual—very necessary to health, but very troublesome to control, as we all know, during diffi-

cult operations of filling. Without these buccal fluids, food would not digest; to stimulate them to healthy action, the food must be well masticated. Dyspepsia originating in absence of the teeth, is then easily understood, and one important adjunct to its cure, viz., artificial substitutes, clearly perceived.

Another cause of dyspepsia may be traced to the presence in the mouth of diseased and dead teeth and roots, connected possibly with inflammation of the gums, abscesses, and a chemical change in the salivary fluids. It is easy to understand how and why diseased teeth and roots, and the presence of morbid matter, vitiate the secretions, and how they interfere with mastication. Bad breath is produced; every inhalation affects the sensible tissues of the lungs; every mouthful of food is impregnated with the morbid matter, carried to the stomach, and taken up by the nutritive vessels. In the course of time the particular teeth are too painful to use, and the consequence is that the food is half masticated, and the owner avoids even hygienic precautions. Pain of itself disturbs the digestion; and when we add the vitiation of the secretions, diseases of the teeth and gums, we have a dyspepsia quite as difficult to eradicate, and more painful to bear, than other complications of the disease in which the teeth bear no part.

Cases in practice multiply in the course of years, and every dentist can, doubtless, refer to his own experience and observation. I remember one remarkable case, of a lady who had been treated for dyspepsia for two years by her family physician, with little or no benefit. I had an opportunity of examining her mouth, and found nearly all the bicuspid and molars in both jaws broken off by decay, to the roots. For over two years the crowns had been destroyed, and there were always one or two aching. At the time I saw her mouth, several were ulcerated, and discharged thick viscid matter on pressure. Upon suggesting their extraction to her medical attendant, and venturing to accuse them as the cause of her constant dyspepsia, he advised her to submit to the operation. The following morning he administered chloroform, and the roots were drawn. After recovering from the influence of the anæsthetic, her weak stomach rebelled, and she vomited several large pieces of baked potatoes and meat, not half masticated. The evidence was indisputable. After a few weeks her general health improved, and by aid of artificial teeth she could eat and enjoy her meals, and finally she entirely recovered, and is now perfectly convinced of the origin of

her disease. Instances of impaired digestion caused by absence of the teeth, and health re-established after the introduction of artificial substitutes, are not rare. I will close these few lines on an important subject by quoting a peculiar case from my note book.

March, 1867. Mrs. R——— had been troubled for several years with indigestion, and could find no cure. Her physician had the good sense to inquire into the state of her teeth; but one day taking out of her mouth a full upper and lower set on vulcanite, she laughingly assured him the cause was not there. In March, 1867, she broke one of the front blocks of her upper set, and wished me to replace it. On placing the set in her mouth I noticed that the incisors and cuspids were the only teeth that antagonized, and that from the cuspids back, on both sides, there was a space of nearly quarter of an inch between the upper and lower teeth. On inquiry I found that she had had the sets made by a quack dentist, on the steam principle of taking the impressions in the morning, and giving the patient the sets in the evening of the same day; and that on returning to show the difficulty to the maker, she was told that the case could not be otherwise, "owing to a peculiarity in the shape of her jaws!" To make a long story short, after getting new sets perfectly antagonized, she was able to triturate her food, and finally recovered her health.

FILLING OVER EXPOSED PULPS, AND HOW TO DO IT SUCCESSFULLY.

BY G. C. DABOLL, BUFFALO.

A little consideration of the form and nature of the dental pulp may help us to an intelligent appreciation of the kind of treatment it will endure successfully, for if knocked about the right way and with the proper materials, the pulp will endure a good deal of professional banging. The pulp cavity in shape corresponds to that of the tooth to which it belongs. The pulp has the same form, and according to Mr. Thomas Bell, is a very soft, gelatinous, semi-transparent body, having its surface covered by an extremely delicate, thin, vascular membrane, closely attached to it by vessels. The arteries which supply the pulp, enter the tooth at the apex of its root, and throw around it a network of circulation, indicating the great vascularity of this tissue. The larger arteries are deep, and communicate with the veins on the surface by great numbers of

looped capillaries. The nerves of the pulp come from the superior and inferior maxillary divisions of the fifth, and are seen to form a series of loops.

From the foregoing description, it will be seen that the pulp seems to be constituted of blood vessels and nerves, enveloped by a very delicate membrane, and blood vessels, nerves and membrane are in turn confined in the centre of the hard and unyielding substance of the tooth, which, in the event of any disease of the organ in question, serves to complicate the difficulties, and render the more doubtful any treatment, with a view toward the restoration to health. Now a healthy pulp and a diseased one, when we are treating cases of exposure, are two entirely different things, and the careful operator, on having a case presented for his consideration, will, as a fundamental rule, ascertain which he has to deal with, for with the primary treatment rests in a great measure the final success of the operation. If the pulp is exposed by carelessness in excavating, in a tooth that has never given any trouble to the patient beyond mere sensitiveness, we have a very simple diagnosis. From the description we have had of the pulp, we know that the mere wounding of a vein is exposure and must be treated as such. If the patient presents a tooth, in the cavity of which, on clearing away the debris, we can distinctly see the pulsation of the arteries, we have a different condition of things, with an equally simple diagnosis. Then we have cases of semi-exposed pulps, that is with only the slightest possible covering of softened dentine, that separates this mass of blood vessels and nerves from the air. These come under the head of exposed pulps, and of this condition we meet more than of any other, the treatment of which are as important and require as much skill as any. Now, we hold that the dental pulp is subject to the same law of health and disease that governs the flesh only to a certain degree, and that only so far as it harmonizes with its more delicate and sensitive nature. Because a wound in the arm or any other portion of the system heals by first intention, it does not necessarily follow that a wound in the dental pulp will do the same. A wounded vein of the pulp will close its walls the same as any other vein in the system, and if protected from irritating agents, will heal as perfectly; but if one of the nerves of the pulp is severed, or an artery ruptured, we very soon comprehend the distinction, by the result. A pulp that has once been thoroughly congested will surely die, and although we may treat it in this condition it will be of little avail as regards its salva-

tion. We entirely disagree with one of the luminaries of our profession, who claims to believe that a pulp may be saved even after ulcers have formed on its surface. The solid walls that protect it in a state of health, in its diseased condition, by confining and restricting its limits, ensure its destruction. The mass of arteries, veins and nerves takes on an inflamed condition, each separate nerve and blood vessel swells to its utmost limit, and is pressed and jammed into its neighbor until a partial or complete state of disintegration, which is synonymous with suppuration, takes place. We all know what an aggravation a ligature or tight bandage is to an inflamed limb, and that is precisely what the tooth is to the inflamed pulp. We must deal with the pulp before it reaches congestion, and therein lies our province as saviors; an irritation or inflammation can be met and subdued, a wounded vein may be healed, but beyond the primary or medium stages, very little can be accomplished.

With the primary treatment of the exposed or inflamed pulp, we come to the consideration of materials for filling, and appreciating the delicate nature of that organ, we must necessarily choose delicate substances, and those that can be adapted or will adapt themselves most perfectly and readily to the diseased surfaces, with the least irritation, and by the application of the least force. For this purpose we have as yet found nothing superior to Hill's Stopping, and oxy-chloride of zinc. Each has its peculiar merits and in special conditions there is a choice in their use. Hill's preparation being a non-conductor, effectually protects the pulp from thermal influences, and in cases of semi-exposure is, in our opinion, to be preferred for temporary fillings. For a wounded vein or other exposure, the oxy-chloride is far preferable. This can be adapted absolutely without the exertion of any pressure, thereby avoiding one of the principal dangers of the treatment. If we have a wounded vein, and there has been no previous irritation, as soon as the bleeding ceases and the cavity rinsed with warm water, we apply a little creosote from a pellet of cotton, just enough to moisten the parts immediately over and adjacent to the exposed place, and then fill with zinc. As soon as it is hard, say from ten to fifteen minutes, cut away, leaving enough in the bottom of the cavity to protect it, and fill the balance with gold. If done carefully and thoroughly under these conditions, a failure will be of rare occurrence. In cases of semi-exposure we rarely meet with one that has not been subject to more or less irritation, and there is very likely to be some lingering inflammation or

morbid condition, that must be corrected. These are the instances in which the patient has had a little pain, more or less severe, continuing for an hour or two sometimes, or again only a few minutes, owing to some thermal shock or sudden pressure. These we treat with creosote or carbolic acid, placing it in the cavity on a pledget of cotton, and sealing it with cotton and sandarac, repeat two or three times at intervals of thirty-six or forty-eight hours, and then fill the cavity with Hill's stopping. This will protect it entirely from thermal changes, and may be left in from four to six weeks, when, if there has been no trouble, remove the filling, and refill partially with zinc and cap with gold. If the tooth will endure the perfect sealing with the gutta percha for a month or six weeks, we regard it as evidence, in ordinary cases, of the health of the pulp. We leave them longer if there is any doubt, or if the case is a bad one, for time is the test, two or three months in the worst conditions at the farthest, with careful manipulation, will ensure nineteen cases out of twenty.

A pulp exposed by the natural decay of the tooth, and that has a portion of its surface entirely denuded, is a dainty subject to deal with. Before it has arrived at this condition, it has passed through many tribulations, and only escaped congestion by some rare and happy combination of circumstances. There has been of course some inflammation, the result of numberless thermal shocks, if nothing more, and this adds to its natural sensibility a morbid condition that complicates the case excessively, our first step is to be assured of the absence of congestion, and one of the most reliable indications to our mind, is the vitality of the nerve filaments in tubuli, and a partial excavation will soon satisfy us; this with the knowledge we can get of the subject as to the amount and character of pain experienced at different times, will give us a tolerably accurate diagnosis. Having removed as much of the decay as possible we lay a pledget of cotton saturated with creosote directly over the part exposed, and seal loosely with sandarac and cotton, great care being exercised that there shall be no pressure; after one or two treatments fill the cavity with zinc. If all right, the pain caused by the filling will pass off in from two to six hours. If subsequently the tooth is very sensitive to heat and cold, cut away a portion of the filling and cap with Hill's stopping. Such cases as these we leave for three months, then remove the filling and ascertain the condition of the pulp; if we find it alive, refill with zinc and cap with gold. We have had a few

cases in which the nerve died, the creosote neutralizing the gases and the tooth giving no trouble up to the time it was examined; but these are rare, and it will be found that inflammation will supervene in a short time after the temporary filling has been introduced, if everything is not all right. When there has been but very little previous irritation, we do not stop to treat with antiseptics, but moisten the cavity with creosote or carbolic acid and fill immediately with zinc. In numbers of cases where the tooth has been presented in an aching condition, it being the first instance, we have treated and filled with perfect success.

We do not claim infallibility, but give this as our mode of treatment, from which the percentage of failures has been so small, that we feel justified in claiming for it the careful consideration of every man that is not already practicing it. We can save teeth by extirpating the pulps, and if it comes to the worst it is beyond a doubt a great blessing; but as compared with the salvation of the pulp and restoring the organ to its normal condition of health and usefulness, it is not a question for argument.

PROCEEDINGS OF SOCIETIES.

AMERICAN DENTAL ASSOCIATION.

BY W. C. HORNE, D. D. S., NEW YORK.

REPORT AND DISCUSSION ON DENTAL PATHOLOGY AND SURGERY.

Dr. Atkinson's report opened with the statement that discoveries in this field followed one another so rapidly that there seemed to be little definitely settled, and even that was always open to revisions and allowances for error. The seat of function is not generally agreed upon, but the power of appropriation and rejection of substances is usually attributed to the *cell*, though that term is a very ambiguous one. In a sense, all contained within the dermal sheath of the entire body is cell-contents, and this sheath or skin the cell-wall proper. The inception and slight degrees of pathological movements are only perceptible to the informed and specially erudite mind, while grave and continued disturbance is readily recognized by the commonest observers. Hence the beginnings of serious troubles are unrecognized, or permitted to declare themselves, with the delusive hope that they may be overcome by the natural forces of resist-

ance. Instances in illustration might be multiplied, taken from practical experience, of ignorance in diagnosing cases, prognosticating results, and assuming to assess the amount of compensation, in money consideration, for operations quite beyond their power to comprehend, much less ability to execute. These circumstances prove to be obstructions to advancement to the weak, but only incentives to those who are really in earnest.

The author then proceeded to discuss the character and development of cells, tissues, organs, and systems, as dependent upon two principal conditions, namely, plan and pabulum. As men advanced in apprehension of fact and philosophy, the most obvious phases first occupied their attention. First the *bodies* of animals were known to grow and diminish, which suggested the idea that these changes take place in the solids of their bodies; hence the solidal pathology. A closer inspection led to the adoption of the view that all nutrient changes take place in the *fluids*; hence arose the humoral or fluidal pathology. The fluids having become the object of special attention, they were found to differ greatly in the alimentary, vascular, and neutral tracts, and the inception of the nutrient movements was supposed to take place exclusively in the neutral tracts: hence the neural pathology. At length the microscope was discovered, and by its help elemental bodies were brought within the range of sight and measurement; and hence arose the cellular pathology. Thus, step by step, the minor propositions in organology have been discovered, until we now stand upon the verge of a grand pathology, including all past phases as requisite to its consummation,—the coming pragmatic pathology.

The various stages of advance of pathological science are shown to have their correspondence in the stages of development of human society, involving a review of the progress of the formation of individual bodies, from the simplest up to the most complex forms. . . . The human system being constructed upon the basis of the destruction of the various inferior types of existence, must include every typical form, from crystal to mucous. . . . If each constituent cell and tissue of the human body continued in its particular place, and elaborated the function of its locality as long as the body continued in existence, we would then have no disease of any sort, and man would be well until spent in every part, as a completely consumed candle exhales into the gaseous state. Alternation of gen-

erations in cells is the prerequisite of growth and development. . . . The metamorphosis of the tissues,—that is, the common law of the economy,—happily for mankind, does not hold in the teeth and hence, operations upon them, when properly performed, are permanent in character. . . . How to do it involves two general propositions: keep the teeth clean, and thus secure their integrity; where integrity is not attained, or is lost by fracture or decay, remove all imperfect, and restore the form and size of the tooth.

Dr. Atkinson said the reason that more is not known on this subject is because of the general belief that there is no money to be got out of it, and this idea necessarily closes the field of vision beyond. The majority of our superior men have obtained their knowledge through long and earnest efforts. If he could supply the lost brick in every man's pathology, he should be very happy to supply it. In the matter of operations of a surgical nature, the dental practitioner could put to shame the general surgeon, from his greater experience with and familiarity in the use of his instruments. Dental pathology was much more clearly defined than general, because of its limited range and the uncomplicated character of the structures; hence, more definite and understandable by less erudite minds. In enamel we find the exact analogue of the mineral kingdom, whose mode of aggregation is an expression of the laws of crystallography; and in the dentine, that of the vegetable kingdom, where nutrition is conducted by a to-and-fro movement of fluids in tubes; and in the pulp we have the exact and veritable mode of nutrition known to the animal kingdom, which is actuated by anatomical elements called cells. It is indispensable that it should be first known what *nutrition* means, and that all the tissues work up through their various grades by the formation, from an amorphous mass of chaotic substance, of the anatomical elements distinctive of the tissues. In the mineral kingdom we have the law of crystallography displayed in simplest and most composite expression. In the vegetable this is repeated, with an additional complication and correlation of elements, so that a vegetable is but an advanced mineral, with the plus something that constitutes it a vegetable. In like manner the animal kingdom grows out of the vegetable by the process of disintegration and reconstruction on a higher plane; so that a complete understanding of animal nutrition involves both vegetable and mineral modes of destructive and constructive assimilation; and happy for us is it that the field of our labors is thus circumscribed, and that nature has

preserved in the enamel the reminiscence of minerals, and in the dentine that of vegetables, which tolerates interference to such marvellous extent as to kindly submit to the removal of their sickened molecules and admit of their substitution by foreign substance.

The knowledge of these principles has grown so insidiously upon us as to extend the field of study necessary to make diagnosticians, so that to-day almost the most ignorant know more than the fathers of thirty years ago. To be respectably successful to-day, we must be able to master and control the whole field, in diagnosis and in execution of the redemptive procedure in pathological and surgical cases. The principal reason why we of to-day know more than our fathers is the result of the labors of a single man, some two centuries since, who penetrated the field of organology to a depth before unknown, unsuspected, and unlooked for. I refer to the renowned Leeuwenhoek, the inventor of the microscope. Important as was this discovery, it took a century and a half for learned men to acknowledge and appropriate it; and the necessity is upon us now to review by the light of this discovery the works of the best laborers in this field, to eliminate error and demonstrate true positions. The living economy, from lowest crystal to highest mammal, selects and appropriates, from merest pabulum, that of which it stands in need, wisely adjusting each elemental body in the proper relation to its fellows, to construct the harmonious whole of simplest or most complex body, and this is the measure of the physiology of the organic world. In the human organization, the culmination of mind and matter, anything that can exert an influence upon us, may tend to continue this harmonious functional action, or be the point of inception of inharmony, thus inaugurating pathological states. Thinking in an unintermitted effort, may so derange the nutrition of certain territories as to result in disease; but so few men are capable of thinking, and the many are so ready to accept at second hand and adopt the thoughts of others, that we need not very much distress ourselves with the fear of pathological action from this cause. Irregular breathing has its effect upon all the other functions of the body, by arresting the regular gyrations of circulation and digestion that take their origin in the respiratory function. Sudden arrest of mental attention and intense concentration of this same effort, are capable of producing this effect of stoppage of respiration for the time, until the mental tension is changed so as to permit the respiratory function to resume its sway. I merely mention these to show how important it is for

us to remember how our life is but a vapor, capable of being dissipated by apparently insignificant causes. Imperfect bodies are alone amenable to pathological action; perfect bodies having no foreign affinities. Wherever the enamel is imperfectly formed at the junction of the denticles that constitute the tooth, and leaves open fissures at these locations, I would advise the removal of all the imperfect portion, and even some of that that is well formed, if necessary, to secure a good cavity in which to impact the gold, the form of which I would prefer to be heavy foil—Nos. 8, 10, 15, and 20. It is fashionable to fill with gold now, but the material is not so important as the manner of using it. Any indistructable matter that agrees with the ghost or typical form of the tooth, properly used, should preserve it indefinitely. He had never filled teeth so satisfactorily to himself as in 1869, because the range of his preception was larger, and the means more extended and more readily obtained; the principle of which is heavy foil, and the lead mallet, ranging from 4 to 12 ounces in weight. We often hear one dentist complain of the work of another; but no one is clear in this matter so long as he has the painful or pleasing recollection of the like ignorance of which he complains in another. We are all making advances, and elevate our standard as we advance; hence that which was once excellence is now inexcusable blundering; but many have the happy faculty of forgetting that they ever blundered or fell short of their present high standard. The daily prayer of my life is that I may be able to do no more mischief, do all the good possible, and be the highest expression of dental knowledge and skill on the planet; and I would to God that every one in this presence would heartily and honestly make the same prayer.

There is no pure expression of physiology on the planet except in the mineral kingdom. All former definitions of a cell are a *sell*. The same productive process obtains in a nucleus as in a cell; that which is necessary to a nucleus, or a nucleolus, or any other body capable of being seen, or the unseen elements out of which these are composed, and are capable of conception, but not of perception, are all endowed with three essential elements—centre, surface, substance. The machinery of sense can only produce an image or impression which is capable of being perceived by the sentiency which is behind all his machinery.

Dr. Buckingham. What is a nucleated cell? Describe it.

Dr. Atkinson. A nucleated cell, to be understood, must be com-

pared with non-nucleated and other cells of varied constitution. Simple cells, in general, are said to be made up of cell-wall and parenchyma, or inclosed substance, and are the examples of non-nucleated cells. A nucleated cell is this same cell with a central portion of its parenchyma so concentrated as to diffract or reflect some portion of the light pencil, thus making it visible as a darker spot. Multiplied dark points constitute the many-nucleated cells. If we wish to clearly understand what is meant by the nomenclature of the books discussing cellular pathology, we must study each author by himself, for there is no settled agreement as to what shall constitute a correct nomenclature. A molecule is an ideal body; a granule is an aggregation of unknown chiliads of these, and thus becomes a perceptible body, capable of casting its shadow or image upon the retina; itself made up of like constituents, with a similarity of tension, of force and form, the essential requisite of sight. The desire to know, and the attainment of knowledge, hold a relation to each other; but the desire to attain, and the ability to communicate, are not father and son, but great-grandfather and great-grandchild. Hence the greatest novice may puzzle the greatest philosopher to satisfactorily answer, to his apprehension, the queries he may put forth with almost spontaneous effort. The difference between minds is but one of degree, for all have to be developed from out of the dark ocean of non-knowledge. Probably there is no one in this presence that is not the superior of all the others in some of the ripening stages of matter and mind—the correlative necessities of substance in human beings. So let us apply ourselves with all our might to essay the solution of every query that can by possibility arise; esteeming the query itself as the proof and the prophecy of its solution to full satisfaction, on the plane in which it makes itself heard to the mind that propounds it. Molecules, then, may be said to be the result of the tendency to the centre of infinitesimal atoms; while granules are the combination of these at the centre, with a tendency from the centre; thus we have the first letter in our alphabet, of form and function necessary to the nutrition of any body. To bring this within the range of our senses, we must accept this supersensuous process. All this is capable of being brought within the parview of conception and perception, the dual primates of sense. Opacity stands in the way of pursuing the alternations of generations of cells in the production of tissues in the human body; but in the transparent bodies of young fishes, reptiles, and fowls there is enough

apparent to sight to suggest and establish the role of the elements of the organs of even the highest bodies. Most of that which we have already attained in this direction we owe to our Transatlantic brethren. We as Americans need more of the German persistency of mind that pursues the discovery and proof of a single point in biology during a long and laborious life, and less of the diffuseness of the *omnium gatherum* character of the American type of pathologists.

In consequence of a very little study in this direction, he was no longer able conscientiously to destroy the pulps of teeth under any circumstances; and, in testimony of the confidence with which he relied upon the doctrines here enunciated, he would detail a case which occurred the previous Friday. Female subject; superior canine tooth, exposed pulp; bled; touched with creasote, which arrested bleeding; filled with oxychloride of zinc; proceeded to work in another direction till the filling had set; then cut away oxychloride, leaving sufficient for a cap, and filled with gold; and if it is not a success he should be very much disappointed.

Dr. Buckingham. What takes place between the oxychloride and the pulp?

Dr. Atkinson. There is an affinity between the hydrochlorate of zinc (the fluid used with the oxide of zinc) and the albuminoid substance of the pulp, and at the point where the satisfaction is complete of this affinity an insoluble pellicle is formed. Beyond this, on the inner side, the coagulation is less and less, becoming simply astringent, collapsing the capillaries, driving the blood column—blood corpuscles and all—into the venous radicles, until the recoil of the column by the *vis a tergo* of the circulation reopens the arterial radicles and the capillary system, re-establishing healthy circulation, without the possibility of setting up the inflammatory process, or inducing the exudation of a single pus corpucle. In case of a very weak pulp, and strong and abundant solution of the hydrochlorate, the coagulation may be effected to the foramen.

Dr. Buckingham. Is there any pain during any part of the operation when the pulp is in a normal condition?

Dr. Atkinson. Exposure itself is an abnormal state; but I have no pain manifested by my patients nor the patients of those who have faithfully followed my directions, as far as reported to me, and I have had many of these. The reason of there being no pain is the

free use of creasote. I never purposely destroy a pulp, and that dentist is weak or wicked who would do so.

Dr. Bogue. How would you preserve a pulp that is exposed and partly suppurated?

Dr. Atkinson. That question can best be answered by detailing my procedure in just such a case. A portion of the pulp had sloughed away. I resorted to my usual treatment in such cases, sopping the pulp with creasote, and covering with cotton and sandarac varnish; this dressing was continued for three weeks; at the end of that time the whole of the body of the pulp was converted into a mass of carbolate of albumen, and came away upon taking hold of it, leaving the legs in the roots in healthy and sensitive condition. Six other pulps in similar condition in the same mouth were treated in the same manner without appreciable loss of substance. He was down on the death penalty; as long as there is life there is hope. Every man in dentistry should bring all his best powers into exercise in the practice of his profession, or he is a sinner.

Question. Does the application of creasote tend to lessen the vitality of the pulp?

Dr. Atkinson. Creasote destroys the periphery, which must be thrown off; and a pulp may be thus destroyed by continued applications. Iodine has such an affinity for some tissues as to stimulate some and destroy others, according to the amount of vigor they possess; the sick being killed and the weak being restored.

Question. Has not the liquid part of the oxychloride of zinc the same action as the creasote?

Dr. Atkinson had never known a case of even a similar action; identity of result is an impossibility, because each exerts its own specific function according to its nature. That they each coagulate albumen is certain.

Dr. Wetherbee. Is it not true that if the oxychloride of zinc is used, without any excess of the fluid, the same result may be obtained without creasote as with it?

Dr. Atkinson. That depends upon the temperament; in a low organization such a result might be attained. I always use creasote with it.

Dr. Wetherbee, when he finds an exposed pulp which has not bled, applies the oxychloride directly to it, only using creasote when the pulp is exposed and bled by the instrument (as will sometimes happen even to the most skilful operator), and that merely as an astringent.

gent. If the chloride of zinc, in coming in contact with the pulp, produces the same result as the creasote, why should the latter be used, unless it is a preventive of pain? Is it true that the occurrence of pain endangers the life of the pulp? He believed not; and whether he applied the creasote or the oxychloride directly to the pulp, there was commonly a twinge of pain, which soon passed away, and was followed by no ill results. In those families which had been long under his charge, and where the teeth were inspected at regular intervals, he did not have occasion to perform any operations of this character; they were confined in the main to new patients. During the past year he had found no case of death of a pulp treated by him in the manner described. When he first commenced this method, it was with hesitancy and misgiving; but it proved so satisfactory that he had gone on, and now believes that, whatever the pathological conditions, they can be conquered. And here comes a wail from some one who has been unsuccessful; but he would say to that man, 'The fault is your own. He accounted this success by supposing that the mixture was too hard when applied to the pulp, or that the cap had been broken in inserting the gold filling. Such failures should not be charged upon the material which proved so successful in abler hands.

Dr. Buckingham said he had tried to follow out all the directions given with the greatest care, but had not had uniform results. No surgeon could prognosticate how any case would turn out, no more could any dentist. He took exceptions to Dr. Atkinson's view of the condition of the pulp as acted upon by creasote. After sloughing and the application of creasote, there must be a cicatrix formed; the pulp must have a natural covering; it cannot tolerate the presence of a foreign substance without some degree of inflammation, which was likely at any time to be waked up into an active state.

Dr. Atkinson said there was no cicatrix; merely a new coagulum was formed; a pellicle, taking the place of the natural covering, dentine.

Dr. Buckingham. You cannot form a coagulum which will not allow fluids to pass through it; even if it were as thick as leather, fluids would pass through it. In this way he had lost a number of cases, and therefore could not report uniform success.

Dr. Wetherbee. Suppose there is an exudation from the pulp, is there no provision for taking it up? The oxychloride of zinc is porous; the best ever made will absorb moisture, and for that reason

it is the best material for capping tooth pulps. It will absorb *liquor sanguinis.*, or anything else, from the pulp, which comes in contact with it. It is sufficiently normal to ensure success; and he believed 100 per cent. of cases would succeed if the cap were not broken.

Question. Do you admit that if there is partial suppuration the rest of the pulp may have recuperative power?

Dr. Wetherbee had never seen such a thing, and did not believe in it. There are three classes of exposed pulps which he believed amenable to treatment. The first, where there is simple exposure; to these he applies the oxychloride, pure and simple. The second, where the pulp is exposed and wounded so as to bleed, here he applies creasote as an astringent and hæmostatic, followed by the oxychloride. The third, where the pulp is congested and has given considerable pain; here he would use means to reduce the congestion, and then fill as before, with confidence of success.

Dr. Butler. Do you still think that it is injurious to the pulp to fill the whole of a large cavity with the oxychloride?

Dr. Wetherbee, in reply, mentioned a case which had come under his care, where, the pulps being exposed, a former operator had filled the cavities entirely with oxychloride, and these fillings had been renewed at times for three years; when he (Dr. W.) examined them the pulps were found all dead, and he attributed this to the continued action of an excess of the hydrochlorate.

Dr. Butler thought Dr. Wetherbee's position questionable. How could it be known just how much of the material to use, if such different results followed? He had used the oxychloride both as a cap and for an entire filling, and had found it to serve equally well.

Dr. Pearce said he must confess himself one of those who were weak and wicked enough to destroy pulps. Experience had shown him that the treatment which had been detailed was not reliable. On several occasions he had found, on cutting into teeth which had been filled in this manner, that the pulps were dead; while in other cases they were alive. He had not seen much to give him more confidence in the process of capping with oxychloride than with anything else. The theory of capping pulps, carried out with various modifications of material, had been extensively experimented upon for many years past, but the success had never come up to the expectations raised. With this state of feeling on his part, he generally transferred operations of this character, which showed indications of

possible success, to his associate, who had more faith in them than he had.

Dr. Bogue thought cutting into teeth to test their vitality mere boy's play. A spicule of ice applied to the tooth was always a satisfactory test of its condition. Where suppuration of the pulp had far advanced, he did not believe it was amenable to treatment. He kept exceedingly careful records of every case of pulp exposure treated by him, and had not lost one case of a healthy pulp, using the same means as described by the previous speakers. He had not yet learned how to arrest inflammatory action in the pulp, and would gladly receive instruction on that point from any one who was capable of imparting it.

Dr. McClelland believed erroneous views were entertained concerning the therapeutic action of the oxychloride of zinc. With a healthy pulp, its therapeutic properties amount to nothing; its only value was in its adaptability; gutta-percha would be just as useful, if it were as easy of manipulation.

(To be continued.)

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

General monthly meeting, February 1st, 1869.

Henry John Barrett, Esq., President, in the Chair.

The minutes of the last meeting were read and approved.

Mr. Francis George Bridgman, 12, Queen Anne Street, Cavendish Square, was elected a member.

Mr. Bevan Fox, Exeter, was proposed for election.

Mr. F. J. Vanderpant signed the obligation-book, and was admitted a member of the Society.

The new President then delivered his inaugural address. He said—

Whatever doubt he might have of his own competence to fill the office to which he had been elected, he had none as to the efficiency of the officers elected to assist him; and therefore, he had only now to seek the aid of the members who were the real supporters of the Society.

He thought that, notwithstanding the valuable papers already supplied by members, they were far from having exhausted the field of their labours; and he called upon the younger members, especially, to devote their attention to the investigation of some one point in

reference to Dental disease and treatment, quoting from a writer of eminence, who said, "That man occupies the highest pinnacle in our profession, and marches in the *first rank*, who is the most intimately acquainted with morbid action, its causes, its history, the tissue-changes resulting from it, and its treatment." When the already published views of others are confined by experiment or accurately reported cases, or when original views are arrived at through the study of new facts and analytical inquiry, the Society would cordially welcome their communication.

The President then pointed out the great value of discussions on practical subjects, which would elicit from the seniors of the profession the results of the teaching of experience and a knowledge which could not be acquired from books, but only from years of observation.

He offered his warm thanks to the late President, Mr. Ibbetson, for his judicious selection of a subject, viz. "The Histological Structure of the Human Teeth," for the best essay on which he had offered a gold medal as a prize.

The President closed his address with some brief remarks on the valuable 'Transactions' of the Society and on the advantages offered by the Dental Hospital.

The following presentations were then announced :

Mr. King, of Newark, exhibited a model and two temporary incisors, with a supernumerary tooth united to each laterally.

Mr. Vasey, Mr. Rymer, the President, and Mr. Charles James Fox, related similar cases.

Mr. Sewill inquired if the committee on nitrous oxide had determined whether engorgement of the lungs with blood took place during the administration of the gas ; if so, whether it was sufficient to be a source of danger in diseased conditions of the lungs—for instance, in phthisis.

Mr. Coleman said that in lower animals the lungs did not appear unduly engorged, but the blood, and therefore the appearance of the lungs, was darker ; both sides of the heart were distended with blood, proving that there was no impediment to pulmonary circulation. The gas had been given without unpleasant results to patients suffering from disease of the lungs. Of course, great caution must be exercised in such cases.

Mr. Sercombe related the case of an epileptic patient, aged twenty-one, who, on taking the gas, was insensible in seventy seconds ; the return to consciousness was somewhat slower than usual,

taking two minutes thirty seconds, but the patient exhibited no convulsive movements. In another case a lady had been kept under the influence of the gas for an hour, never being properly sensible during that time ; she inhaled fifty gallons ; no ill results followed. The gas was administered six consecutive times in the hour.

Mr. Cattlin confirmed Mr. Coleman's statements.

Mr. Coleman mentioned the case of a patient considered unfit for chloroform, but who had twenty-six teeth removed during thirteen inhalations at five visits.

Mr. Versey recommended the perusal of Sir Humphrey Davy's work on nitrous oxide.

Mr. Charles James Fox exhibited and described Mr. Ash's regulator for controlling the heat in the manufacture of nitrous oxide. Although he professed himself in favor of Sprague's regulator, he spoke warmly in favor of the ingenuity and compactness of this invention of Mr. Ash.

Mr. Sercombe exhibited an oxycalcium lamp made by Orchard, of Kensington, which throws a jet of light like sunlight into the mouth, and allows of teeth being stopped in any part of the mouth.

Mr. Sewill then read a paper on "The Comparative Value of the Materials used in taking Impressions of the Mouth," of which the following is an abstract :

After observing that his object was rather to excite discussion than to prepare an elaborate paper, he suggested that it would be well if an abstract of each paper should be sent to every member of the Society prior to the meeting, so that anyone might be prepared to support or combat the views advanced.

With regard to the subject under discussion it might be found that no material was universally applicable, and it was not the least important point to assign to each substance the peculiar advantages which it possesses over others.

With regard to wax, should it be softened by dry or by wet heat? At what degree of softness is it most efficiently applied? Should the impression be withdrawn speedily, or should it be allowed to remain until the wax has arrived at the hardest condition which the temperature of the mouth will allow it to assume? Is it good practice to oil the surface? What are the most effectual means of preventing sucking and dragging.

For his own part he considered it practically impossible to obtain, in any number of cases, a perfect impression of the mouth in wax.

The use of gutta percha was first mentioned by Mr. Sercombe in the second volume of the 'Transactions.' It was much used at first but has been, to a great extent, abandoned; it took long to harden and shrank in the process. The models obtained in this way had the appearance of being very perfect; there was no sucking, no dragging, under cuts were well shown, but these appearances were deceptive; a true portrait of the mouth was not shown,

But if the best kind, viz, the common unprepared block gutta percha of the shops was used, it would prove a useful adjunct in taking impressions, softening more rapidly and completely, remaining soft at a lower temperature, and giving a smoother surface than the pink preparation.

He advocated the use of a special tray for each case struck up in zinc, from moulds obtained in the first instance from an ordinary wax model. The tray should cover only those parts where a plate is to rest. The gutta percha takes ten minutes to harden, and the pressure may be kept up by the patient biting on the tray, a piece of wood being interposed to equalize the pressure; in this way a good model can be obtained.

Stent's composition was a good material; it did not contract or become sucked if left long enough. Of plaster of Paris, the best is to be obtained at Robson's, Mount Pleasant, Gray's Inn Road; should be mixed with water warmed to 80 °, with a little salt; ordinary trays suffice. Should not be used when thin enough to run from the tray, but still it must be soft enough to require slight pressure in taking impression. In the upper, press the plaster first against hard palate, then press upwards and forwards, so as to avoid air being confined and a "blow" resulting. The patient should sit upright and the saliva allowed to flow into a hand spittoon. In the lower the weight of the tray alone is sufficient pressure. A little practice soon enables one to note the best time of removal. By the use of a special tray not covering the external surfaces of the teeth which are not to be worked to, we can avoid too much locking or breaking up of the impression into many parts. He advised leaving the plaster in the mouth about two minutes. After removal from the mouth collect the broken pieces and fit them into their places. In casting such impressions it is best to wash them over with a solution of soft soap. The cast should not be removed entire, but piece-meal with a blunt knife. When a gold plate with clasps is to be made, strike up your plate to the model. Place it in the mouth and

take an impression of the whole in wax from this, with the plate embedded. A cast must be made, and the bands can be adjusted in the usual way. Plaster can be used in nearly all cases; exceptions of course occur, as, for instance, where patients are intolerant of prolonged manipulations; but when used there is no sucking or dragging. The most delicate folds of mucous membrane remain undisplaced. Finally, he valued the different materials as follows: first plaster, then Stent's gutta-percha, and lastly wax.

The President believed that each one would praise the material he most generally used. In edentulous cases plaster of Paris was excellent, but wax was most successful when many teeth were left, or even undercut. In using wax, much depended on its quality and the mode of softening it. Judging from the models exhibited, he did not see that gutta-percha was so superior.

Mr. Ramsey spoke warmly in favour of plaster of Paris; when removed at the proper time, it broke in such a manner that it could be perfectly reunited, and drags would thereby be prevented.

Mr. Vasey used a solution of alum to expedite the setting of plaster of Paris. In undercut cases he placed wax round the undercut teeth, and was thus able to withdraw the plaster readily from the mouth.

Mr. Turner found that, in using Stent's composition, he sometimes got the teeth puffy in shape, which he could not account for.

Mr. West corroborated this statement.

Mr. Moore, of Plymouth, thought pure wax the best material.

The President said puffing took place occasionally when wax was used.

Mr. Walker kept wax in the mouth two and a half minutes; did not rely on gutta-percha; plaster of Paris was the best material, but it was difficult to use in lower cases. The difficulty was to judge of the exact moment for introducing the plaster of Paris.

Mr. Ramsay said the proper moment was when the tray could be turned over without the plaster dropping.

Mr. Sercombe thought they were much indebted to Mr. Sewill for bringing this subject forward. He believed plaster could be used in all cases with rare exceptions, but skill was needed. He thought it very desirable that undercuts should be fully represented on the model, and the work fitted to them, as there should be as little space as possible between the work and the teeth, to prevent the lodgment of food. Mr. Sewill's models showed the accuracy of plaster; the

great point was to make the operation as little irksome to the patient as possible. He simply required them to lean forwards over a basin, so that any loose plaster fell there, instead of into the throat. Salt was more pleasant to the patient than alum.

Mr. Ramsay said special trays were not needed for plaster—he used the ordinary trays—the great point was to know the proper time to introduce it into the mouth.

Mr. Charles James Fox said they were under obligations to Mr. Sewill, not only for the paper, but for the promptness with which he had prepared it at short notice; he especially alluded to the simple practical character of the paper, Mr. Sewill not deeming it essential that he should confine himself to some of the higher branches of Dental science, though few were more competent to treat of them. He referred with regret to the beautiful gutta-percha originally supplied by Dr. Putnam, as compared with that now supplied by the depots. He retained the gutta-percha in the mouth about four minutes, using special vulcanite trays for nearly every case, and dusting the surface of the gutta-percha and the patient's lips with a little French chalk. The removal of an upper piece was facilitated by directing the patient to utter the sound ha! in a loud whisper, thereby raising the soft palate and admitting the air. He should be a warm advocate for plaster models, but found difficulty in uniformly obtaining a quick-setting plaster.

Mr. Sewill, in reply, thought, judging from the discussion, that wax as a modelling agent would soon become obsolete. Work fitted to wax models gave much subsequent trouble to the patient and operator. Mr. Tomes, he understood, had entirely abandoned wax, using plaster or Stent's.

The President said that Dr. Marcus Roeder, of Odessa, who was present, had intended relating the particulars of an interesting case, but, owing to the lateness of the hour, would kindly defer it to another occasion.

The thanks of the Society having been accorded to Mr. Sewill for his paper, and to Messrs. Sercombe, King, Vasey, Fox, and Roeder, for their respective communications and presentations, the Society adjourned.—*British Journal of Dental Science.*

SELECTED ARTICLES.

INOCULATION.

BY J. S. LATIMER, D. D. S., NEW YORK CITY.

In a former communication, I spoke of the danger of inoculating

one patient with the diseases of another, and besought dentists to practice great caution, taking care that each instrument which might possibly be contaminated with blood or pus should be thoroughly cleansed after using.

Recently, very painful illustration of the effects of inoculation has come to my notice, and I deem it advisable to lay the facts, as I understand them, before the readers of the *DENTAL COSMOS*, that they may be on their guard.

A dentist (who also practiced medicine), resident in a small town in the State of New York, in operating for a patient suffering from a syphilitic difficulty, contracted the disease from absorption of the virus at a point on one of his fingers where the skin was broken by a hangnail.

Not at first recognizing the disease and being exceedingly careless with reference to his own health, he employed no appropriate remedies, and was soon unable to continue his practice. The disease progressed rapidly until, at the last accounts, he had suffered paralysis of one-half his body and was likely to speedily "go the way of all the earth."

This is a case of great calamity, resulting from the neglect of a "little thing"—the hangnail on a finger.

The late Dr. John Miller, of our city, had seen the evil results of such accidental transfers of disease, and was so alive to the danger and commonness of it in medical practice, especially in vaccination, that he frequently cautioned the members of the medical association with which he was connected. It was almost a hobby with him. Of course he was exceedingly careful—but he was human. On one occasion he failed to get his lancet thoroughly cleansed after using. His son (then a lad, but now a practicing physician, and from whom I received these facts) was suffering from inflammation of one of his eyelids, and that lancet was employed on it. The result was that the young man came near losing his eye.

Cases might be recounted in convincing numbers, if it were necessary; but that is needless. The theory is generally admitted, and it is only necessary to call attention to the matter occasionally to make the profession more vigilant and cautious. Forceps, lancets, files, scalers, etc., should be thoroughly cleansed with water after using.

If the skin of a dentist's finger becomes broken, it should be covered with a film of collodion or caoutchouc. The "india-rubber" dissolved in bisulphide of carbon answers well for this purpose.

Of course no dentist would think of operating in the mouth while he himself is suffering from a venereal disease. To do so would be criminal.—*Dental Cosmos*.

CALCIFIED PULP OF A SUPERIOR MOLAR.

BY JAMES B. HODGKIN, D. D. S., ALEXANDRIA, VA.

In this case the patient, a lady, called with the left superior second molar aching, and so very sensitive, as to permit but little handling. The tooth had lost its antagonist, and had descended considerably below its fellows in the arch. The crown of the third molar lay against the posterior approximal surface of the affected tooth where the decay was situated so as almost completely to hide the cavity. The patient was very nervous from long suffering. The cavity was cleansed as thoroughly as possible, and Welch's nerve paste applied, covered and secured by a pellet of cotton saturated with sandarac varnish, and the patient was requested to call again the next day. On her reappearance the sensitiveness and pain had much abated, but on attempting to excavate the cavity, some considerable uneasiness was manifested, and as the pulp did not appear to be devitalized, a second application of the nerve paste was decided on.

There seemed in the cavity some obstacle in the way of its ready entrance, the nature of which it was difficult to discover from the unfavorable location, as described. The application made as determined on, the patient was dismissed with instructions to call the following day. She failed to make her appearance however, at the appointed hour, and nothing was heard from the case until about ten days after she entered the office stating that she had been hindered from calling sooner on account of sickness. Pain had impelled her to seek relief, and as the tooth was found on examination to be in a bad condition,—acute periostitis with considerable inflammation of the surrounding parts,—it was resolved to yield to her request, and extraction was resorted to. On breaking open the offending organ the cause of the difficulty in the way of a free entrance into the cavity was made manifest. The entire pulp, with the exception of a small investing membrane was calcified. The adherent portion or point from which the growth proceeded, was at the top of the pulp cavity, opposite the bifurcation of the roots. The uncalcified portion of the pulp very nearly completely invested the adventitious growth, and

did not much exceed in thickness a sheet of ordinary letter paper. The case is sufficiently unique to excite curiosity.—*Am. Jour. Den. Science.*

THE INHALATION OF CARBONIC ACID

The old idea, that carbonic acid is in itself a *poison*, still prevails to a considerable extent, even among well-informed people. Carbonic acid exerts no more corrosive or poisonous influence upon the system than water. Water deprives persons of life, when they are immersed in it, by excluding oxygen from the respiratory organs; and this is why fatal effects are obtained from carbonic acid. Carbonic oxide (CO), when inhaled, is poisonous; it acts upon tissues, produces chemical changes in the blood, and arrests respiration. Not so carbonic acid: we can *drown* in it; but it is in no sense a *poison*. From laboratory experiments in inhaling carbonic acid, we are led to think that possibly it may be found to possess valuable therapeutic properties, when its nature is fully understood. The asphyxia which it produces, although apparently painful and injurious, or attended with fatal consequences, is probably not so. A technical laboratory may be said to be never free from the gas; and the only influence it exerts upon workmen is of a somnolent nature. Breathed in small quantities, mixed with air, it causes a sleepy feeling, unattended with headache. In the manufacture of nitrate of ammonia from the carbonate in a large way, vast quantities of the gas are liberated; and we have seen mice, in attempting to run across the laboratory floor, tumble over, and remain asphyxiated for a long time, and then, upon a subsidence of the flow of gas, recover, and scamper away as if nothing had happened. The dog, which so many of our readers have seen thrust into the celebrated cave, *Grotto del Cane*, near Naples, evidently suffers but very little; and, although made perfectly insensible many times in a day, is not apparently injured in health. These examples, when taken in connection with other significant facts, incline us to think that a series of carefully conducted experiments in the employment of certain quantities of carbonic acid, diluted with air, may lead to the discovery of a peculiar anæsthetic, or sleep-producing agent, of a simple and desirable nature. If the pressure of exacting duties permits, we intend to institute a series of experiments of the nature indicated, at no distant day; and our readers will know of the results.—*Boston Journal of Chemistry.*

CORRESPONDENCE.

CHATHAM, NOV. 12TH, 1869

Mr. Editor:—A meeting of the Dental profession in the western portion of the Province of Ontario, was held at the office of Dr. Stone, in the city of London, on the evening of the 10th inst.

Dr. Stone having been called to the Chair, and Charles P. Lennox appointed Secretary *pro tem*, the meeting was opened and the following resolutions adopted.

Resolved, That we form ourselves into a Society, which shall be known as the Western District Dental Association, and shall embrace all that part of the Province of Ontario lying west from the city of Hamilton.

Resolved, That the object of this Society shall be to promote professional and social intercourse among those legally engaged in the practice of dental surgery in Canada, to advance the cause of dental education, and by a mutual interchange of ideas and experience, to liberalize our relations with each other.

Resolved, That this Society shall consist of all those legally practicing the profession of dental surgery in said western district, who shall subscribe to the articles and rules of this Society, and pay into the hands of the Treasurer the sum of fifty cents.

Resolved, That the officers of this Society shall be a Chairman, Secretary, and Treasurer; all of whom shall hold office for one year.

Resolved, That whoever shall cause to be convicted any person illegally practicing dentistry in said district shall be entitled to a reward of five dollars *for each* conviction, which reward shall be independent of all other fees or rewards, and shall be paid from the funds of this Society.

The election of officers being taken up, resulted in Dr. Stone, Chairman; Chas. P. Lennox, Secretary; and A. Burns, of St. Thomas, Treasurer.

A list of fees was adopted, and subscribed to by all present.

The Society then adjourned, to meet again on the 2nd Wednesday in March next.

I cannot close this report without a word in behalf of Dr. Stone's excellent lady, who, true to feminine forethought, was ready at the close of the meeting with Mocha steaming hot, and other dainties wherewith to make glad the heart of man, and glad were our hearts,

for more delicious coffee never tickled the palate of man. After this we were treated to that, which cheers the heart in its saddest hours, which for the time being shuts out the trials, troubles, and bitter mockeries of the every day life, and transports us, as it were, into the happy realms of dream land. I mean music, sweet music, which seemed to trickle from the fingers ends of Miss Stone, as if a master hand touched the piano keys. The question which muddled my brain upon this occasion was: Why some men can live the lives of old bachelors, and by so doing lose the brightest half of life? I can't solve the matter, but would say to those naughty old bachelors who want to learn a lesson of happiness, spend an evening at Dr. Stone's.

Yours &c.

CHAS. P. LENNOX.

Mr. Editor:—At a meeting of the dentists of the city of Hamilton, held in Mr. Chittenden's office, on Monday evening, the 15th instant, it was

Resolved, 1st. That we form ourselves into an Association to be called the "Hamilton District Dental Society," and that the following gentlemen be appointed officers, viz: Mr. T. Le P. Filgiano, President; Mr. J. Bowes, Secretary; and Mr. D. A. Bogart, Treasurer.

2nd. That our meetings be held on the third Monday of each month.

3rd. That we extend a cordial invitation, through the Secretary, to all the dentists of Hamilton District to unite with us.

4th. That each member present prepare a schedule of fees to be presented at the next meeting, from which a fee bill may be drafted for the Society.

5th. That the action of the dentists of the London District in extending their boundaries so far east as the city of Hamilton, is an act of aggression, not to be tolerated without at least a show of opposition, and that we pledge ourselves, individually and collectively, to make the meetings of our Society so very interesting and profitable, that our brethren to the west of us, will secede from them and join our Society

The next meeting will be held on the evening of the third Monday of December.

It is sincerely hoped that all the dentists of Hamilton District will heartily unite with the Society, and that each will contribute his mite to the common stock of knowledge, and thus make the Association a means of improvement to all. It is by the free inter-

change of ideas respecting our various modes of practice, by comparing notes with each other, by recounting our failures and our successes that progress is made. And while we endeavour to profit by some brother's failure, and strive to shun the rock upon which he split, we, on the other hand, emulate the success of another, and thus reach a higher degree of excellence in our operations than we would without the healthy stimulant afforded by interchange of thought.

We have a striking instance of the value of associated effort in the position of dentistry in Ontario to-day, compared with what it was four or five years ago. That rapid strides of progress have been made in that time who can doubt. That the progress made is mainly attributable to our Dental Society is equally true.

It is cause for congratulation that local Societies are springing up in other parts of Ontario, and while wishing them every success, we hope that the Hamilton District Dental Society may long be a power for good.

J. BOWES,
Secretary.

EDITORIAL.

A TREATISE ON THE DISEASES AND SURGERY OF THE MOUTH, JAWS, AND ASSOCIATE PARTS.—By James E. Garretson, M.D., D:D.S., *Late Lecturer on Anatomy and Surgery in the Philadelphia School of Anatomy, &c., &c.* Illustrated with Steel Plates and Wood Cuts. Philadelphia: J. B. Lippincott & Co., 1869. 700 pages; price \$7.50.

To those who love a scientific profession in which they are engaged, and who appreciate it as more than a mere mechanical calling, the appearance of such a work as the above, should be hailed with even more delight than the lover of fiction, welcomes a new novel. Apart from the stimulus of clinical observation and actual practice, there is no greater mental delight than thumbing the pages, and attentively digesting the contents of such a new work, especially if it has the recommendation of being written by one who has made his name known as a student of deep research and mature reflection.

In this treatise, the author has undertaken to acquaint his readers with many oral diseases and surgery not exactly within the province of the dentist, but upon which every dentist should be well informed. The *objects* of such works as the one under review, are in the highest

respect commendable, and deserve the countenance of every practitioner. We fully appreciate the importance of educating the dentist up to the standard of medicine and surgery, and of laying a good foundation of anatomy, physiology, pathology and chemistry; yet we fear the tendency is to regard such diseases as are included in those of the antrum of Highmore, some cases of necrosis, all cases of neuralgia, ulcers &c., as requiring a superficial knowledge, and properly within the sphere of any one calling himself a dentist. While there are many dentists in Europe and America who have no superiors as oral surgeons, and some who have led the way in discoveries and improvements designed to mitigate suffering, and restore the wreck of the human face divine, we know there are a large majority who confine themselves exclusively to the teeth, and who have the honesty—perhaps timidity—not to rush in where experienced surgeons fear to tread. That there are some, on the other hand, who with no knowledge at all, or very imperfect knowledge of the nature, causes and treatment of special diseases of the mouth and adjacent structures, aim to treat these diseases, and do treat them with the same *sans froid* and audacity as an ulcerated root of a tooth, or an exposed nerve, is a fact known to the cost of many a poor victim.

There is every reason why such studies, and even such practice, should be within the sphere of the dental surgeon, but there is also every reason why they should be thoroughly studied, and that an educational ground-work above the laboratory or the operating chair, should be had before attempting to meddle with special diseases of the mouth, apart from those of the teeth. The only fault we find with such works as this of Dr. Garretson's, is that they so simplify and render attractive theory, that many unqualified are tempted, after perusing such works, to come out, with the receipts they have copied, and the few facts they can remember, as fully-fledged oral surgeons. We are intensely averse to dentists undertaking the treatment of such diseases without a sound medical education; though we are just as intensely anxious to see the day when oral diseases and surgery may be the sphere and specialty of the dental surgeon. As a guide to such a consummation, Dr. Garretson's work is invaluable.

We would like to have made extracts, and to have discussed some points with which we do not agree, and to have commended a great deal by which we have been instructed, but our narrow limits will not admit of such an extensive review. We can only say that as a

text book it is invaluable, and should be introduced into every college, as well as into every dentist's private library. The contents consist of 42 chapters, 120 wood cuts and thirteen plates.

W. G. B.

LOCAL DENTAL ASSOCIATIONS.

When the Committee appointed last January, to draw up a Constitution to be submitted to the Belleville meeting in July, made their report, they suggested the propriety of making the meetings of the Society *annual* instead of semi-annual, and that local Associations should be formed to take the place of the semi-annual meetings of the parent Society.

There can be no doubt that the idea is a good one, and if properly carried out would be the means of advancing the interests of the profession to as great an extent as Societies covering a much larger amount of territory. Men living at considerable distances from each other will meet and discuss matters pertaining to their interests without the least restraint, while those residing in the same neighborhood seem to feel that they must button up their very coats when they meet lest one shall gain some possible advantage over the other. It is true that this feeling does not prevail to the same extent that it did a few years ago, but there is too much of it to be met with still. It was for the purpose of doing away with this local jealousy, or whatever it may be called, that the Committee reported, and the Society at Belleville adopted, the resolutions in favor of Local Societies. We are happy to see that some results are following that movement. The dentists of the eastern part of the Province took the lead in the matter and held a meeting at Napanee, of which we gave a short report in the September number of the *Journal*. In this number we publish a letter from Mr. C. P. Lennox, the Secretary of a Society formed recently at London; also one from Mr. J. Bowes, giving a synopsis of the proceedings of a Society formed for the Hamilton District. We hope soon to hear of similar action being taken by the Toronto dentists.

C. S. C.

CORRECTION.—In the report of the meeting of the Quebec Board of Examiners, in the last number, page 79, the following names were omitted from the list of Examiners: W. Geo. Beers, Dental Pathology; H. Ross, Irregularities and Anomalies; J. McKee, Dental Surgery; M. Pourtier, Dental Hygiene.

Mr. Frank Soper, of Prescott, says: "A small quantity of glycerine applied to the mouth-glass enables the operator to examine a cavity without being interrupted by the patients breath."

DENTAL TEXT-BOOKS.—Three or four times recently we have been asked what books are required for the use of students, and as we may be asked again by others, we take this means of replying to all. The following is the list of books which the Board prescribed a year ago, viz: Gray's Anatomy, Dalton's or Carpenters Physiology, Fowne's Chemistry, Harris' Principles and Practice of Dental Surgery, and Taft's Operative Dentistry. Now that the college is open other books will be required, among which, we think will be Bond's Dental Medicine, Piggott's Dental Chemistry, and Garretson's Diseases and Surgery of the Mouth, Jaws and Associate Parts.

Since writing the above we have received a letter from C. H. Hubbard Esq., saying that he has just received a fresh supply of all the books mentioned above.

GIVING UP PRACTICE.—We call the attention of our readers to the advertisement of Mr. Chas. Kahn, of Stratford, who, on account of his late bereavement, is giving up the practice of his profession. Stratford is a thriving town, lying at the junction of the Buffalo and Lake Huron and Grand Trunk Railways, and is the centre of a fine farming country, and therefore is a very desirable location.

DENTAL SURGEONS OF ONTARIO.

Meeting, Thursday, Nov. 18th, 1869.

OPENING OF A COLLEGE DENTAL INFIRMARY FOR THE POOR.

A meeting of the operative portion of the faculty of the Royal College of Dental Surgeons of Ontario was held in the College rooms, Church street, (over the British American Insurance Company's office) yesterday afternoon. In the absence of the president, Mr. Callender was called to the chair, on motion of the Secretary, Mr. O'Donnell, seconded by Mr. Myers.

CHAIRMAN'S ADDRESS.

The Chairman read an address stating that the object of the present meeting was to open a college for the instruction of persons who

had undertaken the study of dentistry, and particularly urged the students to give their whole time and attention to the knowledge imparted. He further stated that the professors had, at the urgent solicitation of the Board, accepted the chairs assigned to them at a great personal sacrifice, having left large practices to come here to discharge a public duty. He dwelt at considerable length on the importance of a thorough dental education, in order that the profession may keep pace with the progress and advancement of the science of the age.

HOURS OF LECTURES.

Mr. O'Donnell announced the hours of lectures in the dental branch, and stated that they had been so arranged as not to interfere with the lectures in the medical department of Victoria University. He had fully expected the presence of the President at the opening, and regretted his absence. He had written to him some time ago, suggesting the advisability of his delivering the introductory lecture. He had not heard directly of the cause of absence, but from information casually received had concluded it was on account of a change in his domestic relations. He hoped, now that the college was opened, each person would perform his duty, in order that the results would be a credit to those concerned as well as the profession of this province, and an honor to the public at large.

DENTAL INFIRMARY FOR THE POOR.

Mr. O'Donnell moved, seconded by Mr. Trotter, "That this faculty open a dental infirmary at the college rooms for the purpose of performing operations in operative and surgical dentistry for the poor of the city, and that it be open for such purpose daily from 9:30 a.m. to 10:30 a.m., free of charge."—Carried.

LIBRARY.

It was then resolved that the faculty, having in view the establishment of a library and museum, respectfully solicit contributions to the same from medical men, dentists and others, and that anything to further the object in view forwarded to the Secretary, will be thankfully received.

LECTURES.

The first lecture of the course will commence at 9:30 a. m. to-morrow. There will be two lectures in the operative part each day except Saturday, which will be devoted to clinics.

The meeting then adjourned.