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Dominion Dental Journal

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Original Communications

TREATING WOUNDS IN THE MOUTH.

By L. D. S.

Wounded or tender projections of alveolus after extraction: cases of traumatic injury to the gingival margin from ligatures, clamps, badly-fitting crown and bridge work, rubber plates, regulating apparatus, etc. The slightest touch even of soft food making the patient wince, and rendering it impossible to tolerate the presence of even a perfectly adapted plate. What are we to do?

What do we do? Cut away the portions of the plate which impinge upon the tender parts; paint the tender parts with iodine; instruct the patient to leave the plate out of the mouth for a day or two—an inconvenience at best. Run the risk of having to renew the set, not to speak of the annoyance and loss of time to the patient.

A very simple and effective method, for instance, with a vulcanite plate pressing too much upon a sore part of the ridge, is to lay a thin layer of "quickcure," or any other efficacious paste, on interior of the plate in the spots corresponding to the sore places. It is at once soothing and healing; at the gingival margin, in hypertrophy, it is a capital thing to pack into pockets, even into flesh wounds. The olibanum has a wonderful healing power.

HOW DO THE TEETH GROW?

By B.

Just the same in one sense as the other infant structures. They select from the blood the materials they require for their composition. In all ages and among all races, and among all animals, this process of selection has gone on, each tissue selecting the material it needs and rejecting what it does not need. Same in vegetable kingdom. Down at Cacouna, in any rocky pool when the tide is out, you find little plants we call sea-weed, sipping from the mingled waters their daily dose of iodine. Housed sea-snails sucking from it carbonate of lime for their shells; restless fishes extracting from it phosphate of lime to strengthen their bones, and lazy-like sponges dipping successfully into it for silica to distend the mouths of their fibres. Year by year, up to mature age, the bones absorb more earthy salts, and the soft cartilaginous structures become harder and stronger, able to sustain the weight of the body; the muscles become firmer and thicker, skin more tense and thick, convolutions of brain deeper and larger as mental faculties develop and are exercised. But the teeth do not participate in this. The capacity for selection pervades every tissue and every organ of the living body, excepting the teeth. Food supplies nutrition so as to cause changes everywhere, excepting to the hard tissues of the teeth.

A TRICK WORTH KNOWING.

By W. D. KNIGHT, D.D.S., Cornwall, Ont.

I noticed that on damp, rainy days, the cord of my engine was tighter than on dry days. About a week ago the cord became so loose that when I applied pressure to the bur it would stop revolving, and the cord would slip around on the wheel. I took a wet sponge and held it to the cord till it was saturated, when I found that the cord had so shrunk as to be quite tight. I think that this is "a trick worth knowing" to a man when he is in a hurry and has not time to stop to shorten the cord. This is probably known to many dentists already, but I write trusting that it may be as new to many as it was to me.

AN OLD ERROR ABOUT DENTITION.

By B.

A common mistake, even among some physicians, is to classify the coincident disorders of teething as pathological. Teething is a normal physiological development, as much as child-birth. It takes place at an age which, for many reasons, is subject to a large number of diseases. The first dentition generally occupies the first two years of early infantile life, a period in which the child is peculiarly liable to numerous diseases, some of them of a dangerous character. Mothers and nurses were in the habit of anticipating pathological results every time a child was erupting a tooth. Pale and anæmic children were brought to the physician, with the belief that they were anæmic "because of their teeth," when there was clear clinical evidence that a slight catarrh of the intestines had been overlooked, and had degenerated into incurable ulceration of their follicles. To teething it was not uncommon to attribute inflammations of all the external and internal organs, the brain and its membranes, the air-passages and the lungs, etc., as also vomiting, diarrhœa and dysentery, emission of urine, etc. It was very common to find in the mortality records the report of many deaths "from teething." Children five years old, with both maxillaries full of teeth, were said to "die of teething." As well might we assert that the normal physiological process of menstruation or pregnancy are the direct causes of death. A child never died "from teething" any more than a woman ever died "from menstruation." While it is true that teething is frequently associated with pathological effects, and that serious symptoms may be present, it is still true that teething is a purely physiological process, and not in any sense the expected and natural cause of fever, diarrhœa, etc. Thousands of children erupt their teeth without any bad symptoms whatever. Even physicians regarded this as the exception to the rule. The causes of infantile disorders cannot be traced to the consequences of a natural physiological process.

Proceedings of Dental Societies.

THE DENTISTS' OPENING NIGHT.

Toronto Dental Society held its inaugural meeting on Tuesday evening, Nov. 9th. The following officers were installed: Hon. Pres., Dr. Eaton; Pres., D. A. J. McDonagh; 1st Vice-Pres., Dr. Ziegler 2nd Vice-Pres., Dr. Swann; Sec., Dr. T. W. Trotter; Treas., Dr. Wunder. Dr. Swann read a paper on "Anæsthetics," followed by a discussion.



DR. THOMAS FILLEBROWN.

Canadian dentists in Ontario and Quebec who, at the opening of the Royal College of Dental Surgeons, October, 1896, had the pleasure of meeting and knowing Dr. Thomas Fillebrown, of Boston, President of the new National Dental Association, will be glad to see his portrait again. From the *American Dental Weekly* (October 14), published by Dr. S. B. Catching, Atlanta, Ga., we reproduce the following: "Dr. Thomas Fillebrown was born in Winthrop, Maine. Was educated at Maine Wesleyan Seminary. Graduated at the Medical School of Maine and the Dental School of Harvard University. For several years he was lecturer on dental subjects at the Portland School of Medical Instruction. In 1883 he was appointed Professor of Operative and Oral Surgery. He commenced the practice of dentistry in Lewiston, Maine, in 1861; removed to Portland in 1875, and since 1883 has practised

in Boston. He became a member of the American Dental Association in 1876."

We may add to the above the warm congratulations of the Canadian profession on the union of the two old associations, and the happy thought of electing as President, Dr. Fillebrown, whose well-known "power of suggestion" will be sure to convert wrinkles into dimples, and any pains of associative parturition into blissful delight.

Correspondence.

THE BRITISH ASSOCIATION MEETING IN DUBLIN.

To the Editor of DOMINION DENTAL JOURNAL:

Nine years ago, Mr. Editor, I had the pleasure of greeting you at the meeting of the British Dental Association in Dublin, and it renews my pleasure to give you a metaphorical shake of the hand over the ocean, and send you some jottings of our doings. It would be difficult, I think you will admit, to surpass the splendid success of the meeting of 1888; yet great educational and scientific progress has been made in the three kingdoms since then.

In educational matter we have, I think, much reason to congratulate ourselves upon our connection with the Royal College of Surgeons and the General Medical Council. In no possible way does it retard or interfere with whatever is necessary in practical education in dentistry, while it has established for us a higher standard of preliminary examination, and a social tone which every well-meaning practitioner must naturally desire in the interest of his profession.

The preliminary embraces, besides English, Latin, mathematics, comprising arithmetic, algebra as far as simple equations, inclusive; geometry, the subject matters of Euclid, Books I. II. and III., and are of the following optional subjects: Greek, French, German, Italian, any other modern language, and logic.

The professional education consists of instruction in the principles of general surgery and medicine, as well as in dentistry. The apprenticeship system of three years is retained, because it has been proved to be of great practical value, and I may say of ethical value to registered students, giving them an insight to the methods of office practice and conduct, and an unbroken curriculum from year to year. The professional education extends over four full years. The examinations which lead to the diploma from the Royal College of Surgeons, are divided into preliminary science; the first professional and the second professional. The

former requires chemistry, physics and practical chemistry; the second general anatomy and physiology, general surgery and pathology, dental anatomy and physiology, dental pathology and surgery, and practical dental surgery. The written examinations comprise general dentistry and physiology, general pathology and surgery, dental anatomy and physiology, and dental pathology and surgery. The practical examination embraces the treatment of dental caries, the mechanical and surgical treatment of irregularities. There is also an oral. I do not pretend to specialize the minutiae of the subjects. The most thorough requirements are exacted as to regular attendance on lectures, clinics, hospitals, etc. In addition to the Royal College of Dental Surgeons we have three other examining bodies—the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Surgeons of Ireland. Instruction in dentistry is given in London at the Dental Hospital of London and London School of Dental Surgery, the National Dental Hospital and College, Guy's Hospital Dental School, while at ten other hospitals special provision is made for the general surgical practice and lectures required for the dental diplomas. Manchester, Liverpool, Birmingham, Newcastle-upon-Tyne, Devon and Exeter, Sheffield, etc., provide all necessary theoretical and practical instruction. Provision is also made for additional medical qualifications such as M.R.C.S. Eng., L.R.C.P. Lond., etc. It is only necessary to look over the *personnel* of the staffs of all these schools to realize that the selections have been discreetly made.

Our meeting in Dublin this year was pleasant and profitable. Dr. R. Theodore Stack, the indefatigable President, who has devoted over twenty years of his professional life to advance the position of the dentist, paid a very graceful tribute to Mr. Corbett and Mr. Moore, who have practiced for over sixty years in Dublin. I was much pleased with his remarks about Mr. Jas. Smith Turner, of London, of whom he said, "I believe we all feel that the man now living who has done most for our cause is Mr. Turner."

As the social element is a national characteristic of all British societies, I wish to quote some of the remarks at the annual dinner, which was held in the dining hall of Trinity College—Dr. Stack in the chair.

The toast of the "British Dental Association" was proposed by Dr. Lombe Atthill. "You are all well aware of the great achievements which medicine and surgery have made during the Victorian era, and I am satisfied that while other branches of medical science have advanced, perhaps the greatest advance of all has been made by dental surgery. It has not only advanced, but there has been a revolution." "The Dental Act, imperfect as it is, was a

very great step in advance, and that Act would never have been passed except for the energy and influence of Mr. Smith Turner and his colleagues."

Mr. I. Smith Turner spoke eloquently of the pioneer work of Sir John Tomes and Sir Edwin Saunders. The Act, he said, was the outcome of the labors of Sir John Tomes. Referring to the matter of education, I quote freely from Mr. Turner's remarks from our Association Journal (the *Journal of the British Dental Association*):

"It is a very difficult question to approach; it has exercised both the Medical Council and our Association during the past year, but I fear that we are going sadly astray on this question of so-called education. You may train a man to be anything; you may train him to be a skilful surgeon, a skilful dentist, or a skilful physician almost without his being an educated man. A trained man and an educated man are two different beings. We have a complex nature, and if we lose sight of our inner nature in our education we only train the acquisitive aspect of the mind, and I am very much afraid that our young men of the present day are being trained in that way. They are being trained to march forward to the clink of the guinea instead of marching forward to the music of the inward promptings of their individual selves. You may make a trained man, but if you follow this course of examination, if you allow science to put its iron grasp upon them to the exclusion of the education of their inner man, you will only get trained men. Science, let me say, has received an enormous impulse from such men as Tyndall, a countryman of yours, Faraday, Lord Kelvin, and that great and powerful teacher Huxley. Science has received an immense impetus of which it has taken full advantage. But science is strong, and it is arrogant and it is young. Let me tell you this, that the *litera humaniores* is as old as humanity itself, and if you neglect that culture which cultivates your inner nature you will have trained men but not educated men. Your Banks and your Houghtons and such accomplished men will become scarcer and scarcer, and only the bare doctor or the bare surgeon or the bare dentist will encounter his patients, and not the men who can look on both sides of human nature, its spiritual and material side. Science is a great leveller, and you will lose individuality by the reign of science. What was it Tennyson said?

" Knowledge comes, but wisdom lingers,
While I linger by the shore;
And the individual dwindles
As the world grows more and more."

"Put the word 'cram' for the 'world,' and say that 'the individual dwindles as the cram grows more and more,' and you will

have the position of not only the medical profession but the dental profession as well. We must not forget that we have a soul to be educated. We feel we have a kind of religion in us that we must worship. Whether we worship god or devil we have sentiments within us that require training, and if we do not train those sentiments we will lose our self-sacrifice, we will lose our devotion, we will lose our professional patriotism—for I think there is such a thing as professional patriotism—and we will march forward, as I said before, to the clink of the guinea instead of our own higher aspirations. These are the thoughts that cross me when I think of the question of education, either for the dental, the medical, or the surgical profession.

"The poet has well said:

"Life and soul make wretched jangling, they should mingle to one sire
As the children's voices mingle in some old cathedral choir.

Soul, alas! is unregarded; brothers! it is closely shut;
All unknown as royal Alfred in the Saxon weaver's hut,
In the dark house of the body, cooking victuals, lighting fires,
Swelters on the starry stranger, to our nature's base desires.
From its lips is't any marvel that no revelations come?
We have wronged it; we do wrong it—'tis majestically dumb!"

"That is the position into which every member of our profession is driven if this grip of science is allowed to extinguish the higher aspirations to which we were at one time accustomed. It has put its hands now upon our curriculum year by year, and it has now put its iron grasp on our preliminary examination, and when I stand in this hall and address the members of this great and ancient university which has held up the light of literature through the dark ages of our country, I cannot help appealing to them, as one man to another, to make a stand to lighten this incubus of science, science, science, money, money, money, arithmetic and algebra, for with the commercial instinct on the one hand, and scientific pressure on the other, they are jamming the professional spirit out of us. Well, you may say, What has that to do with the British Dental Association? It has this much to do with it, that we start from the same platform in our professional career; the preliminary examination is the same for the medical man as for the dentist, and that preliminary examination has been tampered with by the advocates of pure science, and I would ask the members of this great university to try, if possible, to claim for the preliminary examination of the student some of that higher education which makes a refined gentleman."

Professor Purser (on behalf of Trinity College, Dublin), Sir George Duffey (on behalf of the Royal College of Physicians in Ireland) and Sir Wm. Thomson (on behalf of the Royal College of Surgeons, Ireland), spoke very sympathetically. Altogether

the banquet was one of the most enjoyable of the Association I have attended. A lot of solid, practical work was done, but the memory of real hospitality is, as you will agree with me from your own experience, something that one can never forget.

THE PAST AND THE PRESENT.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—In discussing the best way to eradicate quackery in practice and in advertising, I am not in harmony with some of your views, because in rebuking the present violators of the code of ethics, your rebuke must logically go back to the former acts of men who are among our most worthy. I remember the day when show-cases were so common that they were exhibited at Provincial exhibitions, and the best dentists competed for public prizes for the best display of mechanical work! That was not more than thirty years ago. I was glad, indeed, to see the last of that very unprofessional custom. Have we not to recognize the fact, that the times are changed for us as well as for everything else where men have to get a living, and that with the increase of population, and the accession to our number of many more dentists, we must expect the quack advertiser to thrive upon the credulity of the public. The quack advertisements in dentistry are only on a par with those in medicine. With all our faults, we have never in our history had one criminal in our ranks. Medicine and law cannot say as much in Canada. Yours ———

[Our correspondent is illogical. Dentists who used show-cases, etc., thirty or forty years ago violated no code, because there was neither an organized profession, nor a code to violate. We doubt if the sin of Cain was as great a sin as that of ———. The Ten Commandments made penal certain actions which common law had left uncondemned. When we obtained from the Legislature professional distinction and privileges, it would have been as inconsistent as absurd to adhere to trade methods. We admit the correctness of the parallel between quack medical and dental advertisements, but as reputable medical societies ostracize from their privileges men who resort to these means of booming practice, so reputable dental societies should do the same. We do not propose to hang, draw and quarter these advertisers, or worry them in any other way than by protecting the public from their imposture. By and by such quacks will find it does not pay to lie. Even for them honesty will some day be found to be the best policy. That they would be influenced by the fact that it is the best principle we venture to doubt. If truth can be made to pay better than lying, they will tell the truth, even if it makes them ill to affect such an uncommon act of moral heroism.—ED. D. D. J.]

Medical Department.

Edited by A. H. BEERS, M.D., C.M., D.D.S., L.D.S., Cookshire, Que.

"The lesson which I venture to think should be drawn is, that chloroform should rarely (save in cases of parturition) be employed as an anæsthetic."—DR. JENNINGS, *in the British Medical Journal*.

Dr. LEDOUBLE, Professor of Anatomy in the Medical School of Tours, who has long been making researches on muscular variations, announces that he has discovered ten new muscles in the human body.

EICHIORN AND HEINZ, of Munich, have discovered a new anæsthetic of singular power; a preparation of "benzo-methylic ether," for which they publish the formula, and to which they give the name of "Orthoform." Used in form of powder it is said to extinguish the pain of deep burns, at present the despair of surgeons. The relief lasts many hours, and the application can be renewed with safety from time to time. No evil results followed a case where a patient, suffering from a terrible form of ulcer, had been sprinkled for a week. It has been administered in large doses to arrest the pain of cancer in the stomach.

ACUTE SEPTICÆMIA OF DENTAL ORIGIN.—The particulars of a case of acute septicæmia of dental origin are recorded in the *Transactions of the Manchester Odontological Society* of recent date. The patient, a girl aged 14, was first seen on Saturday, April 10, and was suffering much pain. Examination of the mouth showed that three teeth, namely, the left first maxillary molar (the region of which was much swollen) and the first right and left mandibular molars necessitated extraction. The teeth were removed without difficulty, and the patient made an apparently quick recovery. Soon after returning home she was seized with severe headache, the symptoms becoming aggravated as the day wore on. The swelling too considerably increased, the left eye becoming ultimately closed, and the right side of the face also affected. The patient became completely comatosed. On the Sunday, about 10 p.m. streptococcus anti-toxin was injected, but failed to relieve the condition, death taking place on the Monday morning about 7 o'clock.

ACTINOMYCOSIS CURED BY IODIDE OF POTASSIUM.—Duchamp (*Lyon Medical*, September 12th, 1897) records the case of a carpenter, aged 24, who had suffered for five months from a swelling in the left cheek, which varied from time to time in volume. Abscess formed and fistulous tracts developed, and opened on the

cheek. There was marked trismus, and Duchamp suspected that a wisdom tooth might be the cause of the trouble. Under chloroform the wisdom tooth was extracted; its eruption was imperfect. No pus, however, escaped when it was extracted, and the tooth was healthy. None of the fistulous tracts led to the alveolus around the tooth. These tracts were curetted. The swollen soft parts were as tough as wood, and Duchamp now began to suspect actinomycosis. A few days later tracts formed in the neck, reaching to the sternum; those which had been scraped began to cicatrise; but the patient refused any further application of the curette. He took iodide of potassium, beginning with half a drachm daily, and finally taking over a drachm and a half. At first cachexia threatened and the tracts increased, but at the end of two months they all cicatrised; the health was good and the trismus had vanished.—*Brit. Med. Jour., Oct. 9th, 1897.*

MIXED TUMORS OF THE SOFT PALATE.—Berger (*Revue de Chirurgie*, July, 1897), publishes the following conclusions derived from careful study of cases of mixed tumors of the soft palate. These growths, he finds, form a well-marked group of tumors which possess distinctive anatomical and clinical characters. They take origin in the glandular structures of the palate, and are always enclosed within a capsule of connective tissue, which completely isolates them from the surrounding parts. They are made up of (a) epithelial elements, the arrangement of which resembles sometimes that of an adenoma, at other times and more frequently that of an epithelioma; (b) a stroma presenting varying forms of connective tissue, principally mucoid tissue and cartilage. The author's observations have led him to oppose the theory of the endothelial origin of these growths. Regarded from a clinical point of view these tumors are essentially non-malignant. They never take the same course or lead to the same results as true epitheliomata. This innocent character seems to be due to the suppression of the epithelial constituents of the growth by the development of the mucoid or cartilaginous tissue of the stroma. It is occasionally difficult to distinguish these mixed tumors from sarcomata, which, on the palate, may present analogous characters, such as a slow growth, a distinctly circumscribed form, and relative innocency. The sole reason for anxiety on account of mixed tumors of the palate is their gradual and persistent growth and their tendency to impair through compression the functions of adjacent organs. Their extensions towards the pharynx, the pterygo-maxillary region, and the parotid gland cause some difficulty in their extirpation, which, however, thanks to their investment by a capsule, may be effected by enucleation. Local relapses, when they occur, are always the result of incomplete

removal. The author finally alludes to other tumors of the palate, which, though in many respects analogous to the mixed growths, present a malignant aspect, and often perforate the palate and invade the nasal fossæ and the antrum. These growths, it is stated, need further anatomical research.—*Brit. Med. Jour.*

PEMPHIGUS OF THE MOUTH.—The eruption of pemphigus sometimes occur in the mouth and on other mucous membranes. That the disease in the mouth may precede that of the skin in the ordinary form of pemphigus—the chronic—is not generally known, though this is what invariably occurs, in a rare form, pemphigus vegetans, and that the disease may remain localized to the mouth and adjacent cavities for a long time, and in some cases entirely, does not appear to be at all recognized in this country. In the *New York Medical Journal* of July 3rd Dr. Lewis H. Miller describes a case in which the mouth was affected for twenty months without the skin being involved. The patient was a man, aged 72 years, who complained of soreness in his mouth and inability to take solid food. On the roof of the mouth and on the epiglottis were patches of false membrane of considerable thickness, which, when removed, left a raw, bleeding, surface. Some decayed teeth were extracted and antiseptics used, but blebs formed on the roof of the mouth, the soft palate, the cheeks, under the tongue, and on the posterior wall of the pharynx. Bacteriological examination of the membranes gave negative results. There was neither fœtor nor salivation. Whenever the patient attempted to masticate solid food a fresh crop of blebs appeared. We consider this fact of great interest and importance. It is perfectly analogous to what may occur in pemphigus of the skin; for local injuries, and even friction or pinching, will in some cases determine the formation of a bulla at the spot. No stronger confirmation of the diagnosis of pemphigus of the mouth when the eruption on the skin is absent could be given than this production of bullæ by such trivial exciting causes. Nothing of the kind, so far as we know, occurs in any other disease. Dr. Miller quotes a number of cases in which the disease existed for long periods, in one as much as eleven years, in the mouth before the skin was affected. The rare disease, pemphigus of the conjunctiva, may be very instructively compared with pemphigus of the mouth, because in the former disease also a skin eruption may be either absent or present. The treatment is similar to that of pemphigus of the skin, though it does not appear to be very successful. In the case given arsenic seemed to produce some improvement. Opium might be tried. Mr. Hutchinson has shown it to be distinctly curative in some cases of pemphigus in which the mouth is primarily involved.—*Lancet.*

Tit Bits from the Editors.

Dr. EDWARD C. KIRK, in the October issue of the *Cosmos*, repeats his frequent warnings on the dangers of chloroform when used as an anæsthetic for tooth extraction :

It has been stated, and perhaps with some degree of scientific authority, that chloroform as an anæsthetic in dental practice is peculiarly dangerous by reason of the more or less upright position of the patient during dental operations, which brings the increased stress of gravity to bear upon a heart muscle weakened by chloroform ; a condition not so apt to occur in the case of larger operations where the patient is anæsthetized in a recumbent or prone position. We know of no comparative statistics on that point, nor that there has actually been shown to be a greater danger attending the use of chloroform in dental than in general surgical practice. But that is not the point of first importance. What has been shown by statistics and emphasized by carefully conducted experiments is that chloroform may suddenly bring about paralysis of the heart's function and fatal syncope. If cocaine had been shown to be as poisonous a drug in dental practice as chloroform, measured by the fatalities resulting from its use, it would have been generally abandoned by the dental profession. But for some unaccountable reason, ignorance, carelessness, habit or otherwise, the reports of fatal chloroform poisoning come regularly along, and the coroner's jury continues to exonerate the participants in the crime with the same inconsiderate disregard of their responsibility for the destruction of human life. The *Dental Record* (London), September issue, contains circumstantial accounts of two fatal cases of chloroform syncope as shown by the evidence brought out at the coroner's inquest in each case: one that of a young man, seventeen years of age, who had chloroform administered for the removal of "half a dozen stumps of teeth." Death occurred during the operation. "The coroner said this was the second case within a few days that he had held. It was a wonderful thing that there were not more deaths. The jury returned a verdict of death from misadventure."

In the same journal appears the report of another inquest in the case of a woman, twenty-nine years of age, who died while having three teeth extracted during chloroform narcosis. The report states, "There was nothing in the condition of the patient to suggest any danger whatever. She was apparently a strong woman." Death occurred suddenly during the operation. "The patient became blue in the face and ceased breathing, and to all intents and purposes was dead in three or four minutes." The physician who

administered the anæsthetic testified that "it was quite a usual thing to administer chloroform in cases of dental surgery which occupied some time, and chloroform was as safe as any other anæsthetic. Death was probably due in this case to failure of the heart's action." As death and heart failure in this case seems to have occurred simultaneously it would perhaps be almost warrantable to say that the heart failure was due to death, but if we are to accept as correct the reported testimony of the physician it indicates on his part either a culpable ignorance of the history of chloroform poisoning, or else an attempt to shield himself from a grave responsibility by wilfully perverting the truth. The *dénouement* of the inquest in this case is, in the light of the present status of chloroform as an anæsthetic, grimly humorous, and we quote the closing paragraphs of the report *verbatim*. "The coroner, in summing up, said he did not think, from the evidence, there was any blame attached to either the operator or the doctor. There was always a certain risk in cases where anæsthetics were applied, and unfortunately this case was one of those where that risk had had fatal results. The jury returned a verdict of death from misadventure, and expressed the unanimous opinion that no blame was attached to the medical man who administered the anæsthetic. They also expressed their deep sympathy with the family of the deceased in their bereavement."

We gravely doubt whether an American jury would have dealt so leniently in a case of similar character, or whether the bereaved family would have been satisfied with such a verdict, even though a resolution of sympathy were appended to it, had the case occurred on this side of the Atlantic. Why English practitioners will stubbornly continue the use of so dangerous an agent when records of its fatalities form part of nearly every issue of their periodical medical and dental literature is beyond comprehension. Surely human life is valued as highly by our British brethren as it is here, and their study of anæsthetic agents and their effects as well as practical use has been as extended and thorough as it has been here. But chloroform with all of its risks to life is still the popular anæsthetic in England, and as a consequence the harvest of victims still goes on. No better indication of the place which chloroform holds in relation to the surgical practice of Great Britain is needed than is shown by the fact that at least two of the prominent dental educational institutions of the country have on their staff of instructors specialists in the administration of the anæsthetic who are designated "chloroformists."

Fortunately the truth is beginning to shed its light into some of the English darkness on this subject, and it is a fact of hopeful significance that one of the best authorities in England on anæsthetics has unqualifiedly condemned the use of chloroform in den-

tal surgery as unsafe, and it is to be hoped that among other good things done and to be accomplished by the London Society of Anæsthetists this question may be further agitated until the use of chloroform is abandoned and the safer and equally efficient anæsthetics, ether and nitrous oxid, are generally and wholly substituted for it.

COLLEGE faculties are professional men. They teach dentistry, and a part of the pact with the student is that upon entering the profession he shall maintain the dignity of the college and obey the "code of ethics." There is no bond to bind the obedience, the diploma cannot be cancelled; but the man who accepts knowledge on these terms and straightway manages his practice in a manner obnoxious to his teachers and in opposition to his promise, given or implied, cannot truly claim to be the most honorable man in the world, nor should he complain against the only penalty attached to his act—ostracism.—*Item of Interest.*

It is easy enough to run off a page or two without thought, but it is not possible to prepare an essay of five or six pages that will be interesting and instructive to a reader unless it shall have a central dominating thought. There is a growing tendency to write much to fill space, and too little effort made to make it full of substantial reasoning to convince the reader of the writer's ability and desire to convey something that will require a mental effort to grasp it.—*The Dental Review.*

Selections.

WHAT OF TO-MORROW?

What fanciful, visionary, chimerical theories we cherished only twenty years ago! Many really entertained the belief that caries of teeth is but the natural consequence of man's Adamic fall—that it is the result of our inherited and inherent sins. Some of us remember good old Dr. John Allen's annual diatribes against the villainous millers of the country, who bolt from our flour all the elements that should go to build up the dental organs, and leave our poor teeth starved and innutrient, to perish of inanition and deprivation. His faith in unbolted flour and dental calisthenics was strong as that of the religious devotee, and it carried him triumphant over the sloughs of scientific investigation, in which that one righteous "Miller"—he of Berlin—in company with the rest of the scientific world, was then floundering. John Allen, of

blessed memory, was of the type of those who believed that in the sweet pastoral days of the long-ago, when mills and millers were not and men lived on the bare bosom of Mother Nature, there was no toothache.

What wonderful advances we have made in the last generation. We sometimes wonder if there will be anything left for the next to discover. And yet, it is quite possible that our descendants, the speculative practitioners and the contributors to the dental journalism of 1925, will look with pity upon the benighted condition of the ignorant dentists of the last decade of the nineteenth century, and wonder how they could have believed in the filling of teeth with gold, and such like foreign substances, that could but be detrimental to their welfare, and to the general health.

By that time, perhaps, they will have ascertained in what consists the inherited weakness of the primordial germ, and will be enabled artificially to cultivate the human foetus to the point of developmental perfection. It may be that they will even have determined the degenerations of heredity, and be successfully engaged in eliminating from the female ovum all its perverse tendencies, while the spermatozoön, groomed, and clipped, and trimmed, and trained to that extent that it shall have lost all its vicious animal propensities, will be inspired only by the most virtuous desires for the improvement of its species. It will have begun exclusively to exercise its functions at the instigation of intellectual instead of carnal activities, and only after special and long-continued seasons of fasting, corporeal humiliations and mortifications of the flesh. Impregnation will not be permitted until a council of dental examiners, appointed by political governors as the fitting reward for party service, shall have decided that sufficient pabulum has been stored up to furnish, beyond all the contingencies of miscarriage, enough of calcific material to make a perfect system of dental organs. The male and female pronuclei of gestation will not be permitted to coalesce into the germinal radicle, until each shall be able to convince the special National Board appointed to inspect it, that it is fully equipped and ready for the proliferation of its share of the incoherent homunculus, and willing to demonstrate the modesty and purity of its intentions.

Then, when Madam Ovary shall give one of her inimitably attractive pink teas for the purpose of marrying off one of her daughters, and shall invite the brothers Testis to attend with all their spermatozoön family, at the same time intimating that their extrinsic representative will not be unwelcome as master of ceremonies and general usher, it will be a matter of solemn formality, and not the go-as-you-please, riotous rush of these days and nights of a low developmental plane. When that decorous era shall

arrive, what other needed improvements will not have been made? The self-assumed and legislatively educated skill of the dentist will be needed at every successive stage of existence, to bend, and sway, and coax, and repress any remnants of vicious dental tendencies that may remain. Committees and self-appointed Boards of an International Dental Society, will eagerly and tumultuously crowd in to assume domination over the affairs of their brethren, and by their importunity with legislators they will obtain the passage of laws regulating the precession of the equinoxes, the revolutions of the planets and the intellectuality of dental practitioners.

Over all these phenomena they will be authorized to sit in final judgment, ruling the living as did Rhadamanthus, Minos and Eacus the dead, an infallible conclave which shall decide who shall and who shall not be permitted to conjugate; who shall and who shall not enter into procreant life. What a world of trouble this will save the rest of dentistry, when these Boards shall take upon themselves, without fee or reward, and therefore without liability to error or temptation to dishonesty, the trouble of thinking for us, and of marking out the exact path from which we are not to deviate.

In that day of supplemental development the deficiencies of this formative period will have all been remedied. Each tooth will be made to grow according to the exact formula that its supervising national board of tittivators and regulators shall have determined the best adapted to the needs of the individual subject. Every man and every woman will be legislatively bound periodically to submit himself or herself to the critical inspection of the national board, to determine the moral status of their generative organs. At their discretion the individual members of this Board will order the administration of some specific stimulative preparation—say to the second inferior premolar—through a newly devised and patented cataphoric machine, until it shall develop into a sextupli-tuberculate organ, capable of comminuting into a digestible form shingle nails and plates of asbestos.

Or, perhaps further developing a nineteenth century Phœnixian suggestion, they will order a system of cog-wheels inserted in the molars, so that cubes of limestone, slabs of feldspar, crystals of quartz and concretions of kaolin may be ground up and ingested as pabulum for supplemental dentures, and people so be enabled to grow their own false teeth, without the necessity for the intervention of impression trays and vulcanizers.

In that day our schools and colleges will have been swept off the face of the earth, as unnecessary incumbrances and relics of the dark ages of dentistry, while their rascally, avaricious, nincompoop professors will be set at hoeing corn, or turning the

personal grindstones of the members of the various boards, their own noses firmly held to them as lubricators. Men will be declared educated by act of the legislature and edict of the appropriate conclave, and there will be no further necessity for the old humdrum, perplexing and fatiguing curriculum of study. Possibly a few of the colleges may be retained for the purpose of conferring honorary degrees upon the members of the different Boards who are not already possessed of them, but there will be no necessity for six, seven and eight months sessions of a three years' term of dry study. What a blessed time for such professors as shall have been retained by gracious permission of the Boards! No more wearying lectures to deliver; no more midnight oil to expend in keeping pace with the advance of a profession in which erudition is but a mark of the favor of some specially appointed commission. At that time the prescient vision of the famous Dogberry will have become an established fact, and reading and writing will actually come by nature. What a glorious day will that be for our really honest colleges and professors, if any such there are! How should the heart of the teacher in this nineteenth century leap at the thought of it, and how should his mouth water in anticipation!

But, alas, there is a fly in this precious ointment. We of to-day will then be no longer spring-chickens, and the tenderest will have grown old and tough, as indeed some of us are now. The most of the teachers of the present day will have turned up their ten toes before that long-looked-for and blessed day shall have seen its sun arise. What good will it then do us? Men will look upon our tombstones, and if they give to our memory a thought at all, it will only be one of compassion that we could not have lived in a modern era, and have been intelligently advanced, and not identified with the dark ages of the nineteenth century. As for the present writer, he hates to be pitied, and he won't be. He scorns the thought of becoming an object of commiseration, and so the dentists of the coming century may go to pot with their added improvements. He is content to belong to the post-pliocenes, and will rest satisfied in the knowledge that we of this generation have made some advancement, and are entitled to a little more consideration than mere compassion at the hands of a boastful and vainglorious race of men, who shall have builded upon the hard-earned erudition and illumination for which we of this age have so earnestly labored.—DR. W. C. BARRETT in *Dental Practitioner and Advertiser*.

THE UNITED STATES AND CANADA.

This friendly and courteous tone toward Americans was indeed a marked and truly pleasing feature throughout the entire series of meetings; but, at the same time, no one could be misled. It was the tone of well-disposed neighbors, desiring to live in kind relations with us—the two peoples working out their problems and their destiny side by side, but separate. On the other hand, very striking and impressive were the tokens of Canadian national feeling, and Canadian love and loyalty to the Empire and to the Queen. Every allusion to the Sovereign, to the new ideal of the "Greater Britain," to the closer relationship between the Motherland and the world-wide colonies, was received with outbursts of applause that betokened intense patriotic sentiment. The writer was much confirmed in the view, gained in previous visits to that region, that our people generally have no idea of the Canadians—of their resources and their spirit, of their national feeling and national pride, of their attachment to the Empire of which they are a part. Joined to these there is more or less indicated a radical distrust of our methods and ideas, as compared with their own. Union or absorption with "the States" is as far as possible from the Canadian heart; and to one who considers impartially, it seems that a very long time must pass, and great changes be wrought in both countries, ere such an event can be other than a dream. Nor is this a matter for regret, both peoples have their problems and their work to accomplish; both have free institutions; both have energy, courage and faith in themselves and their mission. As friends and brothers each for itself, they can best develop this vast continent on the lines of Anglo-Saxon civilization. An enforced and uncongenial union could have no benefit for either people.—*From the British Association at Toronto, by Prof. D. S. MARTIN, in Appleton's Popular Science Monthly for November.*

NOTES UPON SOME FORMS OF ENAMEL.*

BY CHARLES S. TOMES, M.A., F.R.S.

In a paper published last year in the *Dental Record*, Dr. Paul expressed an opinion that I had been mistaken, probably, in describing the outer layer of the tooth of Lamna and of other Selachian teeth as a layer of "fine-tubed dentine," and that it had more of the characters of an enamel of the tubular variety.

* Read at the Annual Meeting, held in Dublin, August 17.

This led me to examine into the subject a little more carefully than I had hitherto done, with the result that I came to fully concur with the opinion thrown out by Dr. Paul.

But in the investigation of this and other kindred teeth, some points have come under my observation which seem worth a brief notice. The enamel of Lamna is not much like that tissue which we are accustomed to see; in the first place, in many sections the line of junction between it and the dentine is not so smooth and sharply defined as in most other teeth. In almost all teeth the surface of the dentine is not quite smooth, but it is pitted, as some have thought, to receive the ends of the enamel prisms; and this pitting gives it in section a festooned appearance. Now, in the instance of Lamna and of other Salachian teeth, this festooning is much deeper, so that dwindling processes of the dentine, getting rapidly thinner, do run in a short distance into the enamel.

I presume that this has been seen by Dr. Paul, though so far as I know, he has not described it; but he has put forward the suggestion that the penetration of all tubular enamels by tubes of the dentine is only to be explained by incursions of the dentine matrix, carrying with it the tubes. This explanation, however, I cannot accept, as the results of a very careful investigation of developing Marsupial enamel which I have lately communicated to the Royal Society, show that it is not at all true of that enamel; and, viewed by the light of those researches, I do not think it true exactly of these Selachian enamels, although the appearance there lend to it a *prima facie* support, for one can find plenty of places where tubes run through freely without the least appearance of any dentine matrix going with them.

Hence, although there is undoubtedly a more intimate interdigitation of the enamel and dentine in Lamna than in mammalia, or in most other fish, yet the penetration of enamel by dentine tubes is not to be explained in this way; the tubes which lie in the enamel are a formation derived from the ameloblasts, which join up with the terminations of the dentinal tubes, and hence are, strictly speaking, not properly to be styled dentinal tubes at all. My reasons for saying this will be found in the paper referred to and cannot be further entered upon here, but there are other peculiarities in the enamel of Lamna to which I wish to call attention.

Some little distance into the enamel, one-fourth or one-third of the way through, there occurs a layer of irregular spaces, like interglobular or lacunal spaces, and the tubes continued from the dentine run into these. They are further continued beyond them, right out to the surface of the enamel, where they have open ends, and the tubes are smallest in the middle of the enamel, tapering to this region from both sides. We have thus a sort of combination of the two varieties of tubular enamel, namely, of such as is seen in Sargus,

where the tubes of the enamel enter from the surface and are lost before they reach the dentine ; and of that of a Marsupial, in which they enter from the dentine and are lost before they reach the surface.

This is well seen in some other fossil sharks, in which the outer part of the enamel, with the tubes entering from the surface, forms a very distinctly differentiated layer.

Another appearance, unusual in enamel, is that of a lamination parallel with the surface, and, associated with this, the occurrence of small lacunal spaces, the long axis of which are parallel with the surface.

In watching the action of acids upon a ground section I have noticed that the dentine is attacked with even greater rapidity at first than the enamel, and with the evolution of a great number of bubbles of gas, though the enamel ultimately wholly disappears while the dental matrix is of course left.

Hence it is apparent that the salts of the dentine are far more rich in carbonates than are those of the enamel, though I have not as yet been able to make any analysis of them respectively.

The chief points to which I ask attention are : The interdigitation of the enamel and the dentine ; the occurrence of lacunal spaces in the enamel ; and the peculiar arrangement of the tube system.

But until the development of these enamels has been worked out, no very complete conclusions with respect to it can safely be drawn, so that the present must be regarded as merely a preliminary communication.—*Jnl. Brit. Den. Asso.*

DANGER SIGNALS IN CATAPHORESIS.

Cataphoresis has passed the experimental stage so far as theory is concerned. The electric current will carry medicaments through tissue. Sensitive dentine can be obtunded and excavated painlessly. Pulp can be completely anæsthetised and removed without pain.

These are known facts. There are others unknown to most of us, as for instance, in using it for sensitive dentine may we not injure the pulp by too high voltage, or in ways we know nothing of? We must remember that the pulp has not the powers of recuperation possessed by most of the soft tissues. What voltage is necessary to injure tissue?

Some of these machines furnish as high as sixty volts, which some claim will break up cell life and thus destroy tissue. Of course the makers claim this amount of current is to be used only in obtunding pulp for removal, but right here you must recollect

that the average dentist is not an electrician, and if he attempts to use the current on sensitive dentine and the most minute leak is present, the tooth remains unaffected. He turns on more and more until he is using full strength of machine and the tissues surrounding the tooth are being ruined. Then, how do you know whether you have a leakage or not?

Will the current as used properly destroy germs, or may not septic matter be carried into parts beyond the tooth?

Some of the accidents mentioned have happened and have been reported. Here is another one of great interest and importance. A dentist in this city made an application of arsenic in the usual manner, and at next sitting attempted to remove pulp, but he found it highly sensitive. To hasten matters he applied cocaine with the current and removed the pulp painlessly, but at the next sitting he found the arsenic had been inducted into tissue beyond the tooth. Here was the devil to pay and no funds. Don't say he should have known better—anyone might have done the same thing thoughtlessly.

Never use cataphoresis in a tooth in which any arsenical compound or other injurious drugs have been placed, as the current will carry them through and cause untold trouble.

If pulps die or accidents happen report them promptly to the journals and thus keep others from like errors. Study up on this subject. Act conservatively and report successes and failures.—F. F. FLETCHER, in *Dental Digest*.

SCIENCE BY STATUTE.

In our contemporary, the *British Medical Journal*, for September 4th, we notice the following paragraph:

"THE USE OF POISONOUS SUBSTANCES IN DENTISTRY.—A bill on this subject is to be submitted to the General Court of Massachusetts. The following are its provisions: Section 1. The use of any of the amalgams of mercury as a filling for dental cavities, or the use of red or pink rubber plates which contain mercury or any of its compounds, is hereby prohibited. Section 2. Any dentist who shall violate the provisions of this Act shall be punished by a fine of not less than fifty or more than one hundred dollars, or by confinement for a period of three months in a county gaol, or both, for each and every offence."

Truly this is an astounding example of paternal legislation, or at least of an attempt at it, and it is the more striking as hailing from a country where freedom is supposed to reign paramount. In this country it is difficult enough to procure legislative enactments even upon points on which the whole medical profession is in

entire agreement, and in directions calculated to confer the utmost benefits upon the public, supposing the medical profession not to be all in the wrong, but here the matter in question is in quite a different category.

There are just a few dentists, we suppose, who imagine that mercury in the mouth in the form of an amalgam, or as the coloring matter of red india-rubber, may be capable of exerting its influence upon the individual; and it is sought, not to convince dentists by adequate evidence that such is the case, but to impose the views of an infinitesimal minority by legislative enactment upon their fellows. It reminds us of the rule once in force in some of the American dental societies, which excluded from their ranks any one who had ever used amalgam. Neither red rubber nor even amalgam are absolutely indispensable in dental practice, and if it could be shown that ill effects followed their use, every intelligent dentist would at once abandon them. But how can the "General Court of Massachusetts" judge of the value of the evidence on such a matter? And even granting that some sort of evidence were forthcoming, what would be thought of a bill to prohibit the use of iodoform or of antipyrin, or of carbolic acid, because all have, beyond a doubt, occasionally produced poisonous effects?

That such an attempt should be seriously made leads us to say a word upon the evidence available against these substances. Some years ago a hospital physician, since dead, brought before the notice of the Odontological Society of Great Britain a number of cases of alleged mercurial poisoning caused by red vulcanized india-rubber plates, all of which had occurred in his own practice. The society, recognizing the great importance of the subject, appointed a committee to collect evidence and report upon it; the result was that, in response to circulars sent broadcast to dentists, not one single case could be found which bore investigation. The Hon. Sec. of the society personally investigated several alleged cases, and on one occasion travelled a considerable distance to examine what was stated to be a very marked and typical instance of local irritation attributable to the use of red vulcanized india-rubber plates. His report was that all the described symptoms were there, but that there was dirt enough to account for all abnormal conditions, and it was also clearly shown that all the phenomena upon which the physician had relied were equally to be found under black rubber plates, and even under gold plates.

As the irritation appeared most commonly where want of cleanliness was conspicuous, it was not surprising that it was more common under vulcanite plates, inasmuch as the out-patients of hospitals are not on the whole remarkable for their cleanly habits; besides this it is well known that when plates are not sufficiently long and often out of the mouth, the non-conducting nature of the

rubber may lead to a sort of poulticing of the surface on which it rests, but this is very far removed from mercurial poisoning.

With respect to amalgams, recent investigations show that under some circumstances copper amalgams do undergo disintegration in the mouth, and that free mercury may, in these circumstances, be detected on their wasting surfaces. It does not, however, follow that this free mercury is potent to do any harm; if it passed into the stomach it would probably pass through unaltered, or if acted upon by the acids of the gastric juice would merely amount to a dose or two of calomel distributed over years.

Ordinary amalgams, however, hold their mercury more closely, and do not part with any at ordinary temperatures; they are chemical compounds, though perhaps of a loose kind, and it is almost inconceivable that they can produce any effect, some funny experiments published in America some years ago notwithstanding, in which confinement with pieces of fresh amalgam is said to have been deleterious to the health of cockroaches. In Tomes' "Dental Surgery" there is also an American case quoted as having been set down to mercurial poisoning, which was, on the recorded symptoms, as clear a case of arsenical necrosis as was ever met with.

In England Mr. Jonathan Hutchinson entertains the view that amalgam fillings may, by setting up some form of irritation, be responsible for some cases of leucoplakia of the tongue; but the evidence in favor of this view is very small and it does not appear to have any other adherent, and if amalgam fillings were a cause of leucoplakia that disease would be much more common than it now is. It is equally common where there are no amalgam fillings in the mouth, and where the two do co-exist the distribution of the abnormal patches is not such as to support the idea of any relation of cause and effect. It is safe to say that there is no evidence on record which can for a moment satisfy the requirements of scientific accuracy that mischief has been traced to amalgams, and to borrow again from Tomes' "Dental Surgery," "with the advance of liberal education, which will ensure to the dentist some degree of acquaintance with collateral subjects, such as physics, chemistry and therapeutics, we shall hear no more of this bugbear."—*Editorial in Journal of British Dental Association.*

THE DEATH OF MADAME BERTHAUX.—An interesting figure has passed away from the French dental profession in the person of Madame Berthaux, of Soisson, the wife of a dentist of that town. This lady was seventy-four years old, and had been practising dentistry for forty-five years, and as there were but few women in the profession at the commencement of her career, she may be said to be the *doyenne* of French women dentists.—*Jnl. Brit. Dent. Asso.*

OBSERVATIONS PRELIMINARY TO ORTHODONTIC OPERATIONS.

By W. H. JACKSON, D.D.S., Ann Arbor, Mich.

Before we commence orthodontic operations, the field of inquiry is so very large that I cannot more than touch upon a few of the most important points that bear upon this subject in a short article like the present.

When consulted in reference to these operations, the only aim of the operator should be to do the patient the greatest amount of good with a minimum amount of harm. Should it be found that the harm of an operation would be such as to depress the general system beyond repair, the operation should not be undertaken.

The nervous system is more or less affected in all orthodontic operations, and the amount of irritation will be governed by—

1. The temperament of the patient.
2. The physical condition.
3. The extent of the operation.
4. The density of surrounding tissues.
- 5 The manner of manipulation.

Owing to the mixing of all nationalities in this country, we have no established types, hence there is an endless variety of temperaments, which are difficult to define.

The nervous temperament and those bordering on the nervous give us by far the most trouble, sometimes giving much cause for anxiety, especially where the patient is young, on account of the susceptibility of the great nervous centre to intense feeling or excitement. Frequently in such cases it is unwise to operate, for serious results are almost sure to follow, as the physical system has not vital force enough to stand up under the intense nervous strain put upon it.

Sufficient attention has not been given to the physical condition of the patient before commencing and during these operations, as the operation may last from a few weeks to many months. If it is hard for a well person to undertake, what must be the effect on a weak, sickly patient?

If there are lesions of nutrition present, preventing proper assimilation for the growth of the tissue to follow the moving tooth, it would be folly to commence operations without first correcting the nutrition.

If there have been periosteal lesions which show a tendency to inflammation of that tissue when injured, or by sudden changes of temperature, resulting possibly in caries or necrosis of the osseous

tissues, it will require the utmost care and vigilance during the whole operation. Sometimes, where the conditions have been severe, it would be wiser not to operate.

Rheumatic conditions contraindicate an operation, especially where they attack the periosteum. Happily these conditions are not often found in patients requiring orthodontic operations.

Scorbutic diseases demand attention, and should be corrected and the system placed in a thoroughly healthy state before attempting to operate, and these diseases are frequently found in the young as well as in older patients.

Uremic diseases should be corrected when present. Elimination is just as essential for health as assimilation, and it would be well if more attention was given to bringing it about.

Phthical patients should be dismissed at once without operation, as anything that tends to lower the action of the vital forces will have a tendency to accelerate the disease.

Sometimes the hereditary conditions are such that an operation cannot be made without fear of stirring up a sleeping lion that may be difficult to quiet.

Often the character of the deformity is a family trait, and has been handed down from generation to generation. In such cases you can generally feel assured that though you succeed in bringing the teeth into perfect position, they will, as a rule, find their former position, or approximate to it.

Long, severe operations should not be undertaken on patients while attending school, as the mental work takes up so much of the vital force to supply its needs that there is little or nothing for the physical system to appropriate.

After eliminating the impossible and doubtful cases, and correcting, as far as possible, any diseased condition that may have been present, we are ready to consider that which will have to be done with the case in hand. Above all things, do not be in a hurry, but study the case in all its phases, the probability of success or failure; the amount of improvement in the appearance of the patient by the operation.

After having gone thus far, you will be ready to commence the work of accomplishing the desired result.—*American Dental Weekly.*

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EDITOR:

W. GEORGE BEERS, L.D.S., D.D.S., - - - 92 Union Ave., MONTREAL, Que.
To whom all Editorial Matter, Exchanges, Books for Reviews, etc., must be addressed.

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All Communications relating to the Business Department of the Journal must be addressed to DOMINION DENTAL JOURNAL, Room 97, Confederation Life Building, Toronto, Canada.

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"OUR BOYS" IN PRACTICE.

One of the best ways to grow old gracefully is to keep in touch with the sympathies and aspirations of the boys. It is not a trait of character which can be made to order. It must be a spontaneous and sincere sympathy, based upon genuine liking. And if one who has grown grey in the service can really feel that he is still "one of the boys" himself, he may win their confidence and friendship without losing any of the dignity due to his age. We have quite a little army of young men climbing the ladder of a stiff education to fit themselves for practice, and every year numbers of them come forth in the full panoply of defiance to disease. Few, if any of us, ever took any good advice we got from our seniors, and it may seem a fruitless task to offer any to the present generation. We were all so cock-sure and positive in youth, and extended any pity we had to bestow upon the fathers of the profession, who seemed to be supremely unconscious that heaven had granted this century and this country a superfluity of young men of genius. It is a curious psychological study to watch the quiet transformation that time and experience bring about, from the self-opinionated young hustler to the subdued and more sensible practitioner of middle age. Those of us who are on the shady side of life's career, and who find more consolation

and wisdom in the softened shadows than we ever found in the glare of the sun, may sometimes wonder why young men are not as eager to seek the advice of experience in regard to morals and ethics, as they are to get it in regard to methods of practice. They who hungrily sit at the feet of professorial Gamaliels, think that on questions of morals and ethics they are fully competent to act for themselves. We have no hesitation in saying of the staff of the Royal College of Dental Surgeons of Ontario, that the moral and ethical example presented to the students has been an eminently praiseworthy feature. The boys may think it a hardship that they cannot smoke in the college buildings. Any experienced lover of the weed, even those who may enjoy their pipe as their best friend, will tell the boys that it would be much better for their health and pockets if they would not smoke at all—while they are students. We need not emphasize the infernal evil of permitting intoxicating liquor at college dinners or entertainments. To the credit of the Ontario school this curse of "civilization" has never once invaded the walls or the welcomes of Alma Mater. Students who frequent the saloons ought to think of their anxious parents, as well as the stain upon their own honor, and dread the first temptation as they would dread the very devil personified. We believe in frolic and fun, and the jolly rough-and-tumble of youthful feeling, and we swear by out-door sports; but we do not want hell or the devil in any of them, and there is no hell on earth so wooing and so likely to lead young men astray as the saloon. Who wants graduates of the saloons for dentists? No matter how skilful a young man may be in his profession, who wants to trust a soaker? Moral asceticism is one of the best additions to any collegiate curriculum. We have reason, as a rule, to feel pride in "our boys" in Canada, and our only object in these remarks is sincerely their happiness and prosperity.

DEBTORS TO THE PROFESSION.

There is too prevalent an opinion among a large number of our dentists, that if they pay their annual dues they cease to be debtors to the profession. Complaints are made that some men force themselves into official life, and are bound to stick there in spite of proof of their incapacity. Those who complain may be prejudiced, and may not know the difficulties of the position. On the other hand, if they "know it all," is it not their duty to come into the open, or, as the boys say, "have it out?"

We know men in every province eminently fitted by superior knowledge and tact to occupy official positions, yet who hold

back, some from shyness, some from pure disinterestedness. "It may not always be a soldier's duty to be disinterested. If by accepting a high command which he has not solicited, he can make it easier for his country to secure the victory, his disinterestedness hurts that which is infinitely more valuable than himself. It is possible to say with truth that no man is indispensable; but there are a great many who can facilitate success, and when the success is fully admitted by them to be desirable, are they not under obligations to facilitate it? Humility is an admirable quality, but the humility which leaves duties to inferior people needs some justification."

THE VALUE OF OUR LITERATURE.

We believe we are doing our readers a real service when we urge them to spend more money in the literature of dentistry. It is pitiful to find in some offices nothing but old editions of works that are largely obsolete. The publishers have been liberal in their productions in the interest of our profession, and dentists in practice, as well as students, cannot make any mistake in adding to their libraries every reliable book on dentistry, and more than one journal.

From time to time we have reviewed valuable additions to our literature, and we repeat the names of those we have received during the year—so far: 1. Mitchell's "Dental Chemistry." 2. "The American Text-Book of Prosthetic Dentistry," by Dr. Charles Essig. 3. Evan's "Crown and Bridge Work." 4. Burchard's "Dental Pathology and Therapeutics." 5. Richardson's "Mechanical Dentistry." 6. "The American Text-Book of Operative Dentistry," by Dr. Ed. C. Kirk.

Some of our American publishers are under a misapprehension as to the extent of their sales in Canada. One gentleman writes us that he is not aware of the number sold in Canada, but made a guess. To our certain knowledge there were more copies sold in Montreal alone; while out of the seventy odd dentists and the two hundred students at the college in Toronto, there must have been very many more. Some order direct, but most of the orders go through the depots or through local booksellers. We urge licentiates to encourage students to make these additions to their "list of articles required."

To busy practitioners throughout the Dominion we wish specially to commend Catching's "Compendium of Practical Dentistry," issued annually. The first volume appeared in 1890. The division of selections (all practical) forming the journal include Operative Dentistry, Crown and Bridge Work, Orthodontia, Medicine,

Oral Surgery, Miscellaneous. The volume for 1896 comprised 378 pages and many fine illustrations. It is a *multum in parvo*. Indeed, it is an absolutely necessary work for the dentist who is not tied to the tail of ancient practice, but who wants to know how he can lighten his labor as well as his darkened understanding.

Do not be afraid to be called a book-worm. It is better to be an intelligent book-worm than a conceited despiser of dental literature. Build up your library.

DR. ROBERT CANTWELL.

We had a pleasant visit last month from our friend and former fellow-student, Dr. Robert Cantwell, now of New London, Conn., U.S. The doctor, when like ourselves, just having got out of our teens, was one of the charter members of the "Dental Association of the Province of Quebec," and was one of the seven Montreal dentists who met on the 2nd of September, 1868, to form the nucleus of the Provincial Society. After enjoying a very successful practice, he retired for awhile to engage in a congenial out-door occupation, but, like the salmon which returns to the stream where it was bred, he missed the not unpleasant routine of practice, of which we thoughtlessly often complain. Personally and professionally we can heartily commend Dr. Cantwell to the fraternity of our professional friends in Connecticut.

EDITORIAL NOTES.

THERE are more pins in a full set of plain teeth than in a full set of gums.

THE Aluminum Impression Trays now in the market are light, cleanly, bendable and cheap.

WANTED.—Some one to improve the head-rest of the Dental Chair. Something that will not oblige a patient to bob his head about trying to find the centre.

ONE of the Chicago hotels lets the "privilege" of a resident physician for \$500 a year. The boot-black and the cigar vendor also enjoy "privileges." There should be an opening for a dentist.

QUEBEC Province has another young lady aspirant to the L.D.S., in the person of Miss Ruth C. Aubain, of Montreal, who was one of the five successful candidates out of thirteen for matriculation.

A PROFESSION which treats its law-breakers lightly might almost as well have no laws to break. It is unjust to have one law for an official and another for a private member. The official law-maker is the very worst specimen of a law-breaker. One's example is much more honest than one's high-sounding rhetoric.

A QUACK knows that, as accurate judges of medical and dental merit, the majority of people are fools. He likewise knows that most of them do not know he is a quack. If he is a big enough rascal, he will find big enough fools. If he knows human nature he need not know his business. What a quack knows, is after all worth knowing.

THE Court of Review in Toronto gave an important decision last month in regard to the taxation of private and semi-private educational institutions. The Assessment Commissioner made an attempt this year, for the first time, to tax such institutions as the Dental College, the College of Pharmacy and other institutions, on the ground that they were run on a financial basis and did not come under the exemption clause of the assessment. The Court of Revision, however, refused to allow the assessment of incorporated seminaries of learning.

A STUDENT must learn not only practically how to treat an abscess, what to do with exposed pulps, how to prevent and treat caries, how to treat the diseases of the pericementum, the gums, etc., he must also understand the theoretical reasons for his practical applications. He must know how to diagnose and what to prognosticate. It is not sufficient to know how to make an air-chamber, or how to do without one. He must know the principles of atmospheric pressure and adhesion. Any trained mechanic can make beautiful crown and bridge work, but for its proper adaptation in the mouth, something more is necessary.

IF students want to waste a good deal of time at college, and embarrass their mental efforts in after-life, just let them start into study with a vague knowledge of terms and technicalities. One may fluently use expressions he cannot define, and flippantly roll technicalities off the tongue he cannot explain. It is important, in fact necessary, to get a full and correct knowledge of every term used by lecturers, and not only the definition but the derivation. For that purpose, the very best text-book is a dental dictionary. Before and after each lecture, a student with that one book can illumine many a dark nook in study. A correct knowledge of terms and technicalities fastens more surely to the mind whatever one studies.

WE are indebted to Dr. J. B. Willmott for the following reply to our query as to who was the earliest dentist in Toronto: "So far as I can learn a Mr. Rand was the first dentist here in the early forties. He got acquainted with Lord Elgin, and at his request went to London when Elgin left Canada. Here he built up a large practice. A Mr. Woods was probably next, and was here in 1845; a Mr. Jones from England about 1850. A little later Mr. Slater, still living, a very old man, in Bowmanville I think. He would probably be able to give you early information; he is twenty-two years older than I. About 1855 Dr. French, an American, a graduate of Baltimore; George L. Elliot, John W. Elliot, and a little later W. C. Adams. John W. Elliot and W. C. Adams are still living here and could give you information. Yours very truly, J. B. WILLMOTT."

THE history of one's own life work is inseparable, in a measure, from the history of one's local journalism. Our professional journalism in Canada, like every other literary effort of the kind, has to contend with the keen competition of contemporaries in the United States; and yet we could not use any antagonistic expression advisedly, because there is, perhaps, no more true or pleasant fraternity than that of the pen. All the same, numerous journals published in the United States in the English language are naturally attractive, and we are glad to know that so many of them have Canadian subscribers. Yet, the history of Canadian dentistry cannot be made or compiled outside of the Dominion. Our own journalism grows with us and for us, and we form a part of it, whether we will or not. To those who are active members of the various Provincial organizations the records in the JOURNAL are doubly valuable. Every day we realize more and more the importance of preserving and binding the yearly issues. We repeat the advice often given, "Keep and bind the JOURNAL."

TALKING the other day to a friend of ours, who is the editor of an influential daily paper, we chaffed him on the policy of the press, which, editorially, would not condone quackery and imposture, but which welcomes the very worst form of it in its columns, providing it is paid for as advertising. It struck me as a code of newspaper morals worthy of the political code of a Tartar. In a Socratic way I disputed the justice of such inconsistency to that portion of the public—mostly fools—who got their gospel of dentistry from the advertisements. "Do you believe," I asked, "that the statements and pretensions in the flamboyant advertisements of 'Skin-em and Cheat-em' are true?" "No, I do not," he emphatically replied. "Then you believe that they are lies?"

"I suspect so." "Will you let me insert a letter in your paper protesting against your belief, and defending what you say you believe to be lies?" "No," he answered; "that would be against the principles of the paper." "Well, will you let me insert a letter exposing these lies and giving proofs that they are lies?" "No, that would be against the principles of the paper, too!" "Will you tell me what are the principles of the paper?" "To make dollars for the publisher," he replied frankly. "Is there, then, no way to inform the public of the dangers and damage and imposture of these advertising quacks?" "Yes, a very easy way. You can tell all the truth or all the lies you like in the advertising columns."

OUR readers will have probably shared with us the gratification we naturally feel, that we have been able to secure so many original communications during the year from the dentists of our own country. To stimulate local talent and stir up local contributors is, of course, one of the main objects of a local journal. To report local proceedings as fully as possible has been one of our objects all these journalistic years. Were that not desirable there would really be no particular *raison d'être* for the existence of a Canadian journal. Our Australian brothers have just come to the fore with a local periodical of their own. It will be thirty years next June since the first attempt was made in Canada—coincident with the federation of the scattered provinces into a Dominion. Great progress, educationally and scientifically, has been made since that date. Ontario alone had a legislative enactment; Quebec followed suit the following year, and since then Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, British Columbia and the North-West Territories have fallen into line. We may include England's first and nearest colony, Newfoundland, in our list, as we expect to welcome it to the confederacy. To every dentist in these provinces the JOURNAL has carried every month whatever inspiration it may possess. It has made many friends, and a few foes. We are grateful to the former, and we, perhaps, ought to be grateful to the latter. Silk purses cannot be made out of sows' ears, and the world of dentistry is big enough for cranks. If we believe that it is not large enough for quacks, we owe them no apology, and propose to do our best to wipe them out, in the interest of the public whom they swindle, more than in that of the profession which they disgrace. The steady support the JOURNAL has had from the pens of its friends, justifies the course we have taken. We began these remarks with the congratulatory statement that our original departments have been well sustained. In this one issue we devote a good deal of space to contributions from other sources.

Reviews.

The Educational Review for the Atlantic Provinces of Canada. St. John, N.B. Monthly. \$1.00 per year.

This interesting periodical always brings to us a suggestion of the bracing atmosphere of the Maritime Provinces. Ably edited and worthy of a place in the homes of the people. It brings us all back a bit to our school days.

Saturday Night. Weekly, \$2.00 per annum. The Sheppard Publishing Co., 26 Adelaide Street, Toronto.

Canada needs a bold and out-spoken press. Toronto enjoys the distinction of having by far the most ably-conducted papers in the Dominion. The partizan of whatever stripe gets his political soup in a strong and substantial dose. *Saturday Night* has a sphere of its own: Literary, musical, artistic, political. The independent criticisms of "Don" and "Mack" are a credit to Canadian journalism. It is the very best paper for the money.

Glimpses of Our Empire. By ROBERT SOULTAR, M.P., Dumfriesshire, Scotland. London: Hodder & Stoughton.

A charming little pocket volume of 143 pages, written by a very practical and unsentimental Scotchman. The list of contents is as follows: Five Hundred Years Ago; A Transformation Scene; How We Got Our First Empire; How We Lost Our First Empire and Gained a Second; How We Gained India; Shall We Lose Our Colonies? The Future of India. 1897. There are four maps showing the origin and the growth of the Empire. The chief features of the book are its sober, common-sense and fair play, and the utter absence of the jingoistic spirit, which has been difficult to suppress this Jubilee year.

The Story of Canada. By J. G. BOURINOT, C.M.G., LL.D. Toronto: The Copp, Clark Co., Limited. 463 pages.

This profusely illustrated and well-written work, by the distinguished gentleman who is the Clerk of the Canadian House of Commons, ought to be in every home in Canada. It is issued as one of the series of "The Story of the Nations." From the dawn of discovery in Canada (1497-1525) to the present progressive period the author carries us in his fluent and fascinating manner, telling an old story with such graphic pen that it seems like a new one. The

illustrations and maps, many of them rare, are worth very much more than the price of the volume (\$1.50). The "View of Louisbourg in 1731," from a sketch in the Paris Archives, is an extended picture, the width of five pages, of great historical interest.

Post-Card Dots.

30. What is the technical term of the poet Burns' "hell o' a' diseases?" (S.)

Pulpitis, inflammation of the pulp.

31. Who gave the name of "gangrene" to the disease now called "caries?" (W.E.)

Thomas Bell, F.R.S. Lond., Eng., in his work on "The Anatomy, Physiology and Diseases of the Teeth."

32. What is the date of the foundation of the *Canada Journal of Dental Science*? (T.)

June 1st, 1868. Succeeded by the DOMINION DENTAL JOURNAL, January 1st, 1889.

33. What is xerostoma? (R.T.)

Dryness of the mouth.

34. What works on dentistry would you recommend a busy man to read?

It is generally "busy men" who read most, and do the most work, even out of office. Read the last editions of the works reviewed in the DOMINION DENTAL JOURNAL this year. Also, refreshen your practice and read "Catching's Compendium of Practical Dentistry," Atlanta, Ga., \$3.00.

35. How old are you? (F.C.)

Between 20 and 90.

36. When did Professor John K. McQuillen die?

March 3rd, 1879, aged 54.

UNQUALIFIED PRACTICE IN FRANCE.—The Correctional Tribunal of Liège has just given a notable judicial decision. A. M. V., a mechanical dentist of this town, was prosecuted by the Provincial Medical Commission for having taken the impression of a tooth, and inserted an artificial one in the mouth of the patient. The defendant maintained that he could freely practise these operations. The Tribunal, conforming to a previous decision of the Court of Appeal, decided that such operations could only be performed by a qualified dentist, and fined the delinquent fifty francs.—*Jnl. Dent. Asso. Brit.*

Miscellaneous.

DANGER IN X-RAYS.

JOSIE'S EAR IS SWOLLEN, HER FACE BURNED, SKIN PEELING OFF AND HAIR FALLING OUT.

So as to better diagnose the dental trouble of which Miss Josie McDonald, of No. 9 West 45th Street, New York, complained, Drs. Nelson T. Shields and George F. Jernignan a month ago decided to have an X-ray photograph taken of the young woman's face.

The picture was taken by Mr. J. O'Connor, and as a result of the exposure to the strong mysterious light, Miss McDonald is now suffering from burns.

A few days after being photographed the skin on the young woman's face, neck, shoulders, left arm and breast, became blistered and finally peeled off.

One ear swelled to three times its natural size, and it is said there has been no hearing in it since.

All the burns were on the left side, although the original trouble was on the right side of the mouth. This was doubtless due to the fact that the left side of the face was nearest to the electric bulb.

The photographic plate was placed against the right cheek, the diseased side.

Mr. O'Connor says that he has taken a thousand X-ray photographs, and a score or more very similar to that made in Miss McDonald's case.

In only one other instance, he adds, was there anything like a burn, and that was not serious.

The first picture taken of the young woman, O'Connor admits, was unsatisfactory, and a second and successful attempt was made. The first exposure lasted eight minutes and the last one thirteen minutes.

Besides the burns, large patches of Miss McDonald's hair have fallen out.

ANY medicament containing oil softens the rubber bulb, and after each using it should be cleaned by removing the cap with needle, and washing with dilute alcohol. If the cap on a Dunn syringe sticks so that it cannot be removed, put in quite warm water for a few minutes, then grasp the cap with a piece of rubber dam. For removing a glass stopper from a bottle or anything where the fingers will not hold, a piece of rubber dam will give the necessary purchase.