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DOMINION DENTAL JOURNAL.

VOL. V.

TORONTO, APRIL, 1893.

No. 4

Original Communications.

Dental Dots.

By D. V. BEACOCK, Brockville, Ont.

The dentist should hold out no false hopes to a patient, by promising success where, in the very nature of the case, there is any uncertainty, but every case committed to his care should receive the attention which is due to any operation performed on living sensitive tissue.

Copper amalgam heater, to make: Take a large sized steel thimble, or ferrule, such as is used on the end of a walking-stick, wind a piece of wire round it, twist the projecting ends for a handle. This makes as good a heater as any you pay seventy-five cents for; I have used one for seven years.

The rubber patent for dental purposes, cost the dentists of the United States the enormous sum of \$10,000,000, while in force. Is there any wonder they are so very anxious to break up the odious tooth crown combine?

Dr. Pedley, of England, uses iodoform points for filling roots of teeth, made by saturating floss silk or cotton, with a special kind of iodoform cement, which is allowed to harden.

A piece of suitable sized piano wire, bent and nicely fitted to the palatine or lingual surfaces of teeth, on a plaster model of either jaw, each end of the wire being bent outward at right angles, these

ends secured by simply pressing gutta-percha between the first and second, or second and third molars, makes a very handy and easily constructed appliance for expanding either arch, causing little inconvenience to the wearer, and only takes a few minutes to construct.

Man is born to health and longevity ; disease is abnormal, and death, except from old age, is accidental ; and both are preventable by human agencies.

Filling Teeth with Gold.

By E. H. EIDT, D.D.S., Stratford, Ont.

There is no subject, perhaps, that the dentist is more familiar with, both practically and theoretically, than the one I have chosen for this article. So, if repetitions occur, be charitable, for it is an old, old story that is being told, with a view of bringing some new thought to some one whom it will lead to greater effort to reach the highest possible perfection in the dental art.

Nor rule can be laid down as to where to use gold, but a safe guide, after the health and strength of the patient and the welfare of the tooth itself, have been taken into consideration, would be to fill with gold all cavities in incisors, cuspids and bicuspid as often as possible, and cavities, not too large and not too difficult of access, in the first and second molars.

Too many persons have been so educated, no doubt largely by dentists, that they will say, "It will not be seen, doctor ; therefore fill with amalgam." This is an error which every dentist should endeavor to correct. Dr. Ottolengui, in his "Methods of Filling Teeth," very wisely says, "Cavities in the crowns of molars, though out of sight, should be filled with gold, the rule being relaxed only as the cavity becomes larger. If a cavity be small, and therefore of that class which may be safely filled with anything and be preserved as long as the duration of the material, it is the very place for gold, because gold is the most durable and reliable of all materials." This I know to be a fact, as during the last four years I frequently had the opportunity to examine such fillings in molars inserted eighteen, nineteen, and twenty years ago by a

dentist whom some would call a "crank on gold fillings." I find nearly all of them as bright and perfect as the day the work was done.

It is not my intention to enter into a description of the variations incident to filling a great variety of cavities in different parts of the mouth, but will be contented by presenting a cavity in the distal surface of a right superior central incisor. The teeth being close together, as perfect fillings cannot be made where the space is very slight, the first thing, therefore, that must occupy our attention is to get plenty of space. Several methods to accomplish this are advanced, but my experience has been that absorbent cotton is the most satisfactory to both patient and dentist. The cotton should be made into a rope, and packed tightly between the teeth, and left there, at least, twenty-four hours. Where the teeth are very firm, two applications may be necessary.

Having obtained the necessary space, we are ready for the operation. Apply the rubber dam, exposing four teeth—the two centrals and the right lateral and cuspid. With a sharp, strong chisel, and a spear-shaped burr, the enamel is cut away, well on the labial side, to have a good view of the work, and to expose the filling sufficiently to show what it is. If a gold filling is not sufficiently exposed, and left in a shadow, it will look no better than an amalgam filling, as the surface will appear black. Trim the lingual side down to a smooth, strong edge. The points of the cavity, cervical and cutting, are shaped with a burr or other suitable instrument. The cavity is grooved all around with a sharp burr. Distinct labio and palatal gingival extensions are necessary. They will serve for both retaining pits and starting points. The edges of the cavity are now polished with fine sandpaper strips No. 00, or corundum point, the dust blown out and the cavity is ready for filling. For commencement and lining the walls of the cavity, Watts' crystal gold is used, on account of its more perfect adaptability in small places, lying still where placed, and cohesive qualities. A pellet of this gold, small enough to enter into the cavity easily, is taken, passed through the flame of a spirit lamp, and with a small, slightly serrated plugger, packed into the commencement point and firmly lodged with hand pressure. In regular order from the starting point, each piece of gold is added with small pointed instruments, until the pits and undercuts are filled and the cavity lined.

To complete the operation, No. 4 cohesive gold foil, 1,000 fine, is used. After trying several kinds of gold, I find Hubbard's equal to any of them. Divide the sheets in thirds in this wise: a sheet is moved one-third out of the book; the book is then closed to hold the sheet, and the piece is torn off the way a piece of paper is torn on the sharp corner of a desk or table. These strips are then loosely rolled into ropes, and cut into pellets suitable to the case.

As the pellets are taken up, they are passed two or three times through the flame of a spirit lamp, bringing them up to a red heat each time. To pack and condense, the automatic mallet is employed, using at first a light blow, then a medium, care being taken not to mallet directly against the enamel margin, but always letting a pellet of gold precede the fine plugging point, which pellet of gold should be malleted against the preceding piece or pieces until the filling is flush with the margins of the cavity. With a foot plugger additional pieces are malleted on, running the gold over the enamel margin, so that when the filling is dressed down, there will be a thin film of gold over the margin, which will prevent the fluids from getting between the filling and the margin. For polishing, a medium grade disk is used for taking off the mass of gold, followed by one made from the finest pouncing-paper. This will produce a good polish. Nevertheless, a higher lustre should be attained by the use of a strip of chamois well chalked. For this, the best material is what is known as "whiting."

A Bridge-Work Impostor.

By ONTARIO.

There is bridge-work and bridge-work. A lady came to me with a mouthful of loose, pus-discharging, offensive roots, fistulous openings over six of them, and the gums bearing all the evidences, by odor and appearance, of mercurial administration. There was not a single root that was not loose, and each one, to use a Hibernicism, was "worse than the other one." To suggest crown and bridge-work, in my opinion, was like building a house on the shifting sands, or shaving the head to treat softening of the brain. Therefore, I advised extraction and the usual temporary set.

But someone else advertised, that no matter how bad the roots are, he could treat them and utilize them for "artificial teeth without plates." The credulous lady was induced to go there. In two weeks she had a "perfect set" fastened on four of the roots.

Yesterday, five months after, she came in to see me. I heard that she had got the bridge made, and the following conversation ensued before I looked at her mouth.

"Well, how is the bridge?"

"Oh! it never gives me the least trouble."

"Does it never stir?"

"No, not in the least—I never feel it in my mouth."

Well, thought I to myself, my diagnosis of those roots was bad, yet I was puzzled.

"Let me look at it?" I said.

"Oh! I have not got it in my mouth. I was ill for two weeks after I got it in, and my face was dreadfully swollen; I was very sick, and the four roots were discharging matter, and one side of the bridge loosened and I pulled it out. So you see it 'never gives me the least trouble,' and it 'never stirs,' because it is in a little box at home."

Sensitive Dentine.*

By W. G. BEERS, L.D.S., Montreal.

A society of savants was once organized in Germany, with the explicit rule that every paper read before it was to be absolutely and infallibly original. It met twice, then died for lack of material. It occurs to me that if we were gathered here upon the same condition, my paper, at least, would be unconstitutional, as it is almost impossible, without being impracticable, to contribute anything new on the subject of Sensitive Dentine. And yet are we not apt to forget that some points may be, or must be new to somebody, and that even old facts are never too often repeated, if they have not been sufficiently learned. Were dentine no more sensitive than enamel, or were it possible, speedily and safely to render it as insensible, what a boon it would be to our patients,

* Vermont State Dental Society.

what an immense blessing to ourselves! what pathological consequences would be avoided! One may, therefore, venture to prowl about, and into old and well-beaten tracks.

What do we mean when we speak of sensitive dentine? If you examine dentine, you will discover that, strictly speaking, we do not mean what we say. Macroscopically we observe that it is a structureless matrix impregnated with lime salts, and that if the enamel and cementum were entirely removed, the tooth would still retain its form and character. Any pretence that the matrix *per se* is living protoplasm, or that it can in any way display vital phenomena, is a hypothesis incapable of proof. When now we examine the tissue microscopically, we see that from the pulp cavity to the periphery, the entire dentine is perforated with numberless small tubes or canals, having distinct walls; each tube starting by an open circular mouth upon the surface of the pulp cavity, radiating in an undulating course, giving off many branches which freely anastomose or communicate with each other, something like the arteries and veins of the body; but which do not reach the periphery of the dentine, as each tube becomes smaller and breaks up into branches at a little distance beneath the surface of the dentine. Sometimes, as an anomaly, these tubes pass into the enamel and cementum. Each tube has a definite wall or lining that may be demonstrated, even in fossil teeth. The tubes are not mere bony canals or ducts in the matrix, like pipes put through chalk, but each tube is lined with a definite and delicate, and yet indestructible structure, the "dentinal sheath of Neumann." You may boil dentine in caustic alkali; you may reduce it by concentrated hydrochloric acid; you may submit it to putrefaction, and though you destroy the cartilage, and leave it a slimy and shapeless mass, the sheaths of Neumann remain intact. But neither of these structures explain the so-called sensitiveness of dentine. The tubes were once supposed to be solid fibres: afterwards it was thought that they were the conveyers of a nutrient fluid; but Tomes proved that they are occupied by little soft fibrillæ, which, like nerve-filaments, conduct sensory impressions to the pulp. The fibrils are processes, or prolongations of the odontoblasts, which are situated upon the periphery of the pulp, lining the pulp-chamber. No true nerves, or nerve fibrils have ever been demonstrated in dentine; but fine nerve filaments are

found close to the odontoblasts, and, as Black shows, they communicate to the sensorium the sensation made on the protoplasm of the odontoblasts through the injury to the fibrils. It is not even necessary to assume that fibrils are nerves, before recognizing that they can communicate sensation. Many animals, which have no demonstrable nervous system, are endowed with sensation. As Black shows, protoplasm in itself may be sensitive, as is seen in the amœba, the leucocyte, etc., which respond to stimulants and exhibit sensitiveness to thermal changes.

However, there is no doubt but that the sensitiveness is due to the presence of the tube contents, whether nerve fibres enter or not. We are still ignorant of a great deal as to the peripheral distribution of the nervous system, and it would be rash to say that we know all about the nerve structure of the tooth. Only recently a new addition was made to our knowledge of muscular tissue, and it is quite certain, that if any of us live ten years longer, we will know a great deal we do not know now as to the structure, mode of action and functions of the more complex nervous system.

Sensitiveness of dentine is purely physiological, but we cannot assert that it is never pathological. It seems reasonable to believe that a pathological condition of the fibrils at once follows fracture of dentine, or a severe blow, which the pulp resents but cannot resist. Yet it is a demonstrable fact that the teeth differ as to this susceptibility the same as nerve, muscular and other soft tissues: that not only is there a great variation in different mouths, but that the more inexplicable fact presents itself, that in the same mouth at the same time, in teeth apparently under the same conditions as to the extent of caries, there are frequently remarkable differences in degree during excavation. This, to me, is quite different, and more obscure, than the fact that the greatest sensibility is at the point of ultimate distribution of the dentinal tubes and their contents—that is, immediately below the enamel. This latter fact would alone prove that the fibrils are organs of sensation, and subject to the same laws as nerves of sensation, the highest sensibility of which is confined to their terminal branches. How do we explain sensitiveness in one cavity in the same mouth more than in another cavity in the tooth beside it? If it was on the opposite side, we might perhaps say that it was due to the

concentrated action of a chemical agent, which has a stronger affinity for the fibrils than for the dentine; but that would not explain the difficulty.

The dentine of rapidly decaying teeth is more sensitive than in slow caries. A fracture which exposes the dentine is hypersensitive at the line of fracture. Frequently we find in worn down crowns a point intensely sensitive, so extremely minute that we cannot diagnose it with a probe. Newly opened, and especially obscure cavities, are more sensitive than cavities of the same size and age which have been exposed to mastication. For this reason, approximal cavities are more sensitive, as a rule, than those on the crowns; and those bordering on the cementum more sensitive than either, especially when, through the medium of the "granular" layer of the dentine, there happens to be a fusion of the two. Frequently the sensitiveness is confined to the layer of decomposed dentine which we scoop out at a cut with a spoon excavator. Why is this decomposed layer *per se* so hyper-sensitive? You can put that in the question box for some one to answer.

During menstruation and pregnancy, and in many constitutional conditions, especially in rheumatism, gout, etc., when there is an acid reaction, there is an exalted sensibility of the fibrils. It is a fact that the fibrils, which were intensely sensitive before exposure of the pulp, over their layer of dentine, decomposed or not, are reduced by actual exposure.

Whatever controversy may exist as to the histology and physiology of this subject, we know that the preservation of the normal integrity of the fibrillæ is important, excepting, perhaps, in old teeth. In children's teeth, especially in the deciduous set, the fibrillæ are generally hyper-sensitive, and it is unwise to place a metal filling over the dentine, without the interposition of a non-conductor, or, at least, carbolizing the albumen of the cavity by previously inserting carbolic acid for a few minutes, or by following the idea presented by our friend, Dr. Stebbins, in the use of nitrate of silver.

Hyper-sensitiveness may be so intense that constitutional treatment may be advisable. It may be associated with extreme sensitiveness of bodily and mental condition; a high-strung intensity of the nervous system, which is so common in this

country that we scarcely suspect it of being pathological. You know there are patients who will scream, if they do not faint, over a simple excavation, while others are fearless, and, in fact, would not suffer in proportion in an amputation. We find the same fact with the lower animals. If you prick one horse with a pin, he will bolt; you may kick another, if you are a brute yourself, and he will think more than twice before he stirs.

I suppose we are all more practically concerned in the treatment of sensitive, dentine than in questions of its physiology. The dental pharmacopœia is full of suggestions from the earliest times. That our materia medica of the present day is by no means an entire novelty, may be seen by anyone who reads Chap. ix., Book vi. of A. Cornelius Celsus, who flourished in the time of Tiberius III., Emperor of Rome. When we discuss the therapeutics and materia medica of dentistry, let us be humbled by the reflection that over seven hundred years before the United States was a nation, the ancients had investigated and discovered remedies many of which are still in use.

Among the applications tested for relief, may be mentioned all the narcotics, anæsthetics, sedatives, and escharotics. Having said that, it might not seem necessary to particularize, but some have had more success than others; some have proved a delusion and a snare. None have, perhaps, done more mischief than arsenic—a comfort in disguise. Various combinations of creosote, carbolic acid, chromic acid, tannic acid, chloride zinc, nitrate of silver, cobalt, chloral, cocaine. Chromic acid, and chloride of zinc give severe pain on account of their greater affinity for water, and are destructive if used near the pulp. Nitrate of silver in crystal, or as a saturated solution, is useful at the periphery of the dentine, but if near the pulp, it may also cause its death. Herbst's obtundent is simply a saturated solution of cocaine hydrochlorate in chemically pure sulphuric acid, to which is added sulphuric ether to the point of saturation, allowing the excess of ether to escape by evaporation. Even that must be used with caution. If there is excess of acid, use alkali mouth washes, holding a drachm of carbonate of soda in the mouth for a few minutes frequently during the day. Rapid wedging, by forcing the apex of the root against the foramen portion of the nerve, partly choking circulation and obstructing connection with the sensorium, has a remarkable

benumbing influence on the fibrillæ, which are temporarily strangulated. Rapid cutting with sharp excavators or burrs, exhaust the fibrils by frequent irritation. Half the pain given by many operators is due to poorly tempered and badly sharpened instruments. Dehydration, or drying the cavity by absolute alcohol, keeping on the rubber dam, the use of hot air, with various preparations of tannin, etc., using temporary fillings to give physiological rest to the fibrillæ, filling the cavity lightly with cotton, and applying, with an assistant, rhigolene spray, or in extreme cases of necessity, administering nitrous oxide, and operating rapidly during general anæsthesia. That is all, I think, I know. Perhaps we may yet discover something in the application of electricity.

In conclusion, I must say that I have an instinctive dislike to the use of the term "sensitive dentine." It is one of those many inaccuracies of expression and definition for which the nomenclature of dentistry is distinguished. We have, in many instances, as many names for one meaning as Mahomet had floors in his heaven, and the student who follows the dental literature of modern times will discover, that every writer is a law unto himself, to make or murder etymology, and to render Greek and Latin derivatives into that sort of English which Dr. Johnson defined, when speaking of poetry, as "ingenious nonsense." As the different points of the compass have a local wit and wisdom of their own, so they curiously seem to have an independent scientific terminology. There is so much poor coining of words in dental science, and so little harmony in their use, both by teachers and text-books, that the fashion of pitching new terms into our vocabulary is becoming a contagious nuisance. Somebody founded in Italy the *Accademia della crusca*, a society for restoring purity to the native language. Some day—let us hope at the World's Dental Congress—a special section will be entrusted with the duty of definitely settling our definitions.

Dentine *per se* is no more sensitive than enamel. We do not mean what we say when we speak of sensitive dentine; then, why do we not say what we mean? There is no such condition or possibility as sensitive lime salts. It may be thought that this is splitting hairs in argument to disapprove of terms which custom so long has sanctioned; but custom has no mortgage on fact. It

may be said we call the epidermis "sensitive." but it is only the nerve filaments that make it sensitive. Paralysis destroys the sensation of touch; a palsied hand will respond to stimuli by reflex action without sensation. When the nerve filaments are palsied, the skin *per se* is as dead to sensitiveness as if it were parchment. Everyone knows that when the pulp dies, the dentine loses its so-called sensitiveness, and that with living pulps it is often no more sensitive in excavation than the enamel. Dentine would not be sensitive if the branch of the nerve leading to the tooth was severed. Yet, in these several conditions* there would be no alteration in the chemical or microscopical character of dentine. We know very well that the sensitiveness is due to the contents of the tubuli, which transmit sensation to the pulp. Dentine is nothing but the passive matrix, in which lie the sources of sensation. Therefore, logically as well as scientifically, the term sensitive dentine is a misnomer, and we should say "sensitive fibrillæ." Perhaps we should not.

Proceedings of Dental Societies.

Royal College of Dental Surgeons of Ontario.

ANNUAL MEETING.

The annual meeting of the new Board of Directors was held at 2 p.m. on Tuesday, March 28th, in the council chamber of the College of Physicians and Surgeons, on the corner of Bay and Richmond Sts., Toronto.

The full Board was present, composed of the following members:—Dr. G. E. Hanna, Kemptville, District No. 1; Dr. J. A. Marshall, Belleville, No. 2; Dr. H. L. Wood, Toronto, No. 3; Dr. R. J. Husband, Hamilton, No. 4; Dr. A. M. Clark, Woodstock, No. 5; Dr. J. Stirton, Guelph, No. 6; Dr. J. A. Smith, Windsor, No. 7; Dr. J. B. Willmott, representing the Faculty of the School of Dentistry.

Dr. Wood was elected temporary chairman, and Dr. Willmott secretary *pro tem*.

The election of officers was the first order of business. Dr. Willmott nominated Dr. Wood as President. Dr. Smith moved in amendment, seconded by Dr. Clark, that Dr. Husband be President. Upon a vote being taken, Dr. Husband was elected. Dr. Clark was elected Treasurer, Dr. Stirton, Registrar, and Dr. Willmott, Secretary.

Minutes of last Board meeting were read.

Upon motion of Dr. Hanna, seconded by Dr. Clark, Dr. Stirton, Editor of the DOMINION DENTAL JOURNAL, for Ontario, was asked to report a synopsis of proceedings in that journal.

The Secretary presented his report, which, along with other interesting information, will be printed in pamphlet form and distributed to the profession throughout the Province. The report showed that there had been sixty-three matriculants registered since March 5th, 1892, and fifty-eight indentures filed.

The books of the late Treasurer, Dr. Clements, were presented, audited, and found correct. They showed cash on hand \$4,373, with the addition of fees received for examination this year of \$1,830, also matriculation fees, amounting to \$315, in all, \$6,518. The expenses for the past year, consisting of Secretary's salary, legal expenses, examiners' expenses, and current expenses of Board, have to be deducted from this, leaving about \$5,200 as a clear balance to the credit of the Board. A full and detailed statement, however, will be given to every licentiate in the Province.

The report of Examiners was presented and considered. Forty-six students went up for the final examination, of whom thirty-seven passed. The following is the list of successful students in both years :

Passed final examination : W. W. Alton, J. S. Brooks, G. A. Bentley, Harold Clark, J. G. Coram, F. T. Coghlan, W. A. Crowe, R. S. Clemes, D. I. Dulmage, H. E. Eaton, Edwin Forster, C. S. Fowler, E. A. Harrington, E. S. Hardie, George Hicks, John Irwin, R. J. Loughheed, J. Loftus, R. Meek, J. W. Marshall, W. McGuire, W. T. McGorman, E. A. Peaker, J. C. S. Robertson, R. J. Robins, D. E. Russell, C. J. Rodgers, C. E. J. Smith, M. H. Steele, J. A. Sanders, G. D. Scott, Charles Thompson, J. M. Turnbull, N. Wager, C. N. Wartman, J. E. Wilkinson, C. H. Waldron.

Passed intermediate examination : C. M. Abbott, J. W. Bell, W. J. Brownlee, C. Bowerman, G. F. Baker, W. A. Brethour, C. W. Corrigan, L. H. Dawson, Ed. Fitzpatrick, R. L. Graham, W. F. Ganton, W. S. Hall, W. A. Howe, D. A. Hare, W. C. Kennedy, V. H. Lyon, J. L. Mulligan, O. A. Marshall, A. E. Mullin, W. H. Moseley, J. McKnight, A. McIntyre, G. R. Patterson, C. E. Pearson, J. Ross, R. J. Read, J. R. Raleigh, W. H. Snider, M. H. Simpson, C. P. Sherman, W. W. Thornton, H. Wightman, R. A. Willmott, J. Young.

To take supplemental examination : Final, E. B. Shurtleff, Operative Dentistry, Physiology, and Chemistry ; L. J. Wells, Operative Dentistry, Dental Prosthetics, and Materia Medica ; intermediate, Operative Dentistry, J. C. Bansley, W. Bell, J. A. Fleming, G. W. Hoag, C. A. McElhinney, T. E. Oliver, H. G. Twining, G. C. J. Walker ; Physiology, H. F. Burgess, J. T. Davis, B. F. Nichol, H. G. Twining, G. C. J. Walker ; Surgery, C. A. McElhinney.

The following will take metal work in their final year : W. Bell, Bowerman, Baker, Corrigan, Davis, Dawson, Graham, Hoag, Hall, Hare, Kennedy, Lyon, Mulligan, Moseley, McKnight, McElhinney, Oliver, Sherman, Wightman, Willmott, Young.

A statement of the Faculty of School was presented, showing that there had been ninety-one paid students in attendance at last session.

The gross receipts from fees were \$9,060 ; the expenses of school were \$1,734, leaving net receipts from fees of \$7,326. Drs. J. B. Willmott, Stuart and Teskey received each the sum of \$2,324 ; the balance, as well as receipts from Infirmary patients, went towards payment of Dr. W. E. Willmott and demonstrators. Drs. J. B. Willmott, Stuart and Teskey each delivered one hundred lectures of one hour, each receiving per hour the sum of \$23.24. For the last four years these professors received, on an average, over \$20 per hour for their lectures, and for eighteen years since the school has been established, every hour's lecture has averaged to the lecturer over \$10. The average attendance for eighteen years has been 39.3.

After a discussion with the Faculty, who were present upon one evening, the following resolution was presented to the Board :

Moved by Dr. Stirton, seconded by Dr. Clark, that this Board deem it advisable to effect a change in the mode of management

and carrying on of the School of Dentistry. That we believe that the Board should assume complete control of the school; receive all fees from pupils, and any other income that may be derived from said school. That all professors, demonstrators and teachers of said school be paid by salary, and that they be engaged by the Board, and that amendments be made to the present by-laws to conform with the idea of the above resolution. Carried.

A discussion then took place as to the ways and means of obtaining a college building. A completely new and equipped college building was what was desired by every member of the Board, but with the present sum in the treasury it was not deemed possible or wise to attempt to buy property and erect a suitable building on such a small nucleus. The old school on Louisa Street was then thoroughly examined, and after thorough consideration, it was decided to lease the whole building and utilize every part of the four flats. It was found that a commodious lecture room, capable of seating 120 students, could be arranged; one flat devoted entirely to infirmary work; one flat to laboratory work, and the basement for melting, swedging, etc.

By the expenditure of a few hundred dollars a very comfortable and commodious school can be made, which will fill the bill for a few years, when it is hoped that by economy in curtailing expenses, a substantial sum sufficient to warrant the erection of a building will be in the treasury. A committee composed of the President, Secretary and Dr. Wood was appointed, to obtain a lease of the building for two years, with the option of a longer period if desired, and to arrange for fitting up in a comfortable form.

The following committee was appointed to hire professors, demonstrators, teachers, etc., and to look after the thorough equipment of the college: Dr. Husband, Dr. Willmott, Dr. Clark, Dr. Wood and Dr. Stirton.

The matter of personation was brought up, and after the most conclusive proof that one of the first-year students had been personated at his matriculation examination, his name was struck from the roll as a student of the R.C.D.S.

The by-laws were amended to conform to the idea of aforesaid resolution, and an effort to amend the by-law upon the exaction of an annual fee, by reducing it to \$1, was introduced by Dr. Hanna, but was voted down, only Dr. Marshall and Dr. Stirton supporting the mover.

The following gentlemen were appointed Examiners for 1893-94 : Drs. W. Revell, Windsor ; G. H. Weagent, Cornwall ; T. Rowe, Cobourg ; S. Moyer, Galt ; H. Wood, Toronto ; D. Clark, Hamilton ; F. Kilmer, St. Catharines ; C. V. Snelgrove, Toronto, and Dr. Rowe, presiding examiner.

The advisability of the appointment of a Board solicitor was brought up, and after consideration, Mr. D. R. McLean, B.A., barrister, Toronto, was appointed to that position.

The by-laws were then gone over and amended when necessary, and as amended will be given in the annual announcement this summer.

It was decided that the position of dean was one that should be filled at once, and Dr. J. B. Willmott was elected to that position, at a salary of \$250 per year.

It was moved by Dr. Smith, seconded by Dr. Marshall, that a pamphlet be issued to the licentiates in Ontario, containing complete information of the Board meeting, financial and other matters of importance to the profession.

The Board elected Dr. J. B. Willmott as their representative upon the Senate of Toronto University, and at 4 o'clock on Friday, March 31, the sittings concluded.

The meetings throughout were harmonious, although strong and decided feeling was shown that a radical and thorough change had to take place in the management of the school, a management that will not put all the money in the pockets of a few, but will give a fair remuneration for the services of professors and teachers ; put money in the treasury of the Board for a future building, and at the same time give students a better and more complete education and better value for their money than they have ever had in the past.

British Columbia Dental Association.

The annual convention of the British Columbia Dental Association was held in Victoria, on September 26th and 27th, 1892. Owing to repeated postponements, on account of the prevalence of smallpox in the city, the attendance was not so good as at former meetings ; however, the interest and enthusiasm of those present made up for lack of numbers, and the two days of session were

fully occupied with the programme of essays, clinics, discussions, and regular business.

The following papers were read and discussed :

President's Address—T. J. Jones, L.D.S.

Administration of Ether—Lewis Hall, D.D.S.

The Relation of Physician and Dentist—J. Holmes, D.D.S.

Orthodontia—A. E. Verrinder, M.D., D.D.S.

Extraction of Children's Teeth—W. J. Quinlan, D.D.S.

Oral Surgery—R. F. Verrinder, M.D., D.D.S.

Treatment of Teeth during Pregnancy—A. R. Baker, D.D.S.

Use of Electric Mallet (clinic)—A. R. Baker, D.D.S.

The following officers were elected for the ensuing year : President, Dr. T. J. Jones, Victoria (re-elected) ; 1st Vice-President, Dr. A. J. Holmes, New Westminster ; 2nd Vice-President, Dr. W. J. Curry, Nanaimo ; Sec. Treas., Dr. A. C. West, Victoria (re-elected). Executive Committee : Drs. A. J. Holmes, New Westminster ; C. H. Gatewood, Vancouver, and R. F. Verrinder, Victoria.

The President, T. J. Jones, L.D.S., and R. F. Verrinder, M.D., D.D.S., were elected delegates to represent the Province of British Columbia at the World's Columbian Dental Congress.

The next convention will be held in New Westminster in September, 1893.

A. C. WEST, *Sec.*

[We regret that some of the above papers have not yet been received.—ED.]

Vermont State Dental Society.

We had the pleasure of attending the annual meeting of the above Society, held in St. Albans, on the 15th, 16th and 17th of last month. There was a large attendance of members during the whole session, including the following contingent from Canada : Drs. J. A. Bazin, Geo. W. Lovejoy, Stephen Globensky, J. H. Bourdon, C. H. Wells, A. H. Beers, W. Geo. Beers. An address of welcome was read by the veteran, Dr. Gilman, of St. Albans. Dr. Wright then read an interesting paper, entitled "Little Things," in which he showed that there was a wide and varied field under so modest a title. Dr. W. S. Curtis read a paper, entitled "Charity," an excellent one, suggesting certain charitable schemes

for the State. On Thursday morning, Dr. R. M. Chase read a valuable paper, "History of Vermont Dental Laws and Examining Board." Dr. Dwight M. Clapp, of Boston, gave over an hour's talk on "Combination Fillings," illustrating his views on the black-board and by means of a series of test fillings in dead teeth. It was a most instructive paper. Dr. Beers read a paper on "Sensitive Dentine." In the afternoon Dr. G. Lenox Curtis, of New York, gave a series of clinics in oral surgery—one an obscure case of facial neuralgia which had persisted for three years, and which the Doctor discovered to have originated in large pulp nodules, which were seen when the tooth was extracted and split. It was gratifying to old friends of Dr. Curtis to find that, in choosing to confine his entire attention to oral surgery, he had clearly followed the bent of a strong predilection. It is important for us as dentists to know that with operators like Drs. Garretson, Brophy and Curtis, we have no need to send antral troubles, cancerous cases, necrosis, etc., to the general surgeon. Dr. McDiarmid, of Montreal, was prevented by illness from giving a clinic on "Removable Bridge Work," but his colleague, Dr. Lovejoy, presented one of the most beautiful cases the members had ever seen. Dr. S. S. Stowell, of Pittsfield, Mass., illustrated his methods of crown work. Dr. W. R. Blackstone, of Manchester, N.H., interested the members very much in his rapid gold filling with soft and cohesive foils. Dr. Cleaves, on "Napkining the Mouth," Mr. W. H. Towne, on "Hypnotism," and Dr. Steele, on "Elements of Success in Dentistry," then completed the programme. Dr. J. E. Waitt, of Boston, gathered together, mostly from his own collection, quite a valuable museum of physiological and pathological curiosities in dental development and disease. Altogether the meeting was of great profit and interest.

On the evening of the 16th the banquet took place. Dr. George F. Cheney, President of the Society, acted as toastmaster and introduced the speakers. Our genial friend, Dr. Lewis, of Burlington, as usual told a good story. He is as bright in mind and as active in body as he was half a century ago. Dr. Parker, of "Bellows Falls," spoke on "The Dentist's Opportunities"; Dr. Clapp, on "New England Dentistry." "The Dental Board of Quebec" was very neatly responded to by the President, Dr. Stephen Globensky, in which he acknowledged the courtesies extended to

the dentists from Canada. "Dental Education in the Dominion" responded to by W. G. Beers. Dr. Waitt responded for the honorary members, and Dr. Perkins for the ladies.

Obituary.

George Watt, M.D., D.D.S.

Dr. George Watt died on the 17th of last month. There are men in the profession whom everybody seems to know, and Dr. Watt was one of them. He was born in 1820, his father being Scotch-Irish and his mother of Scotch descent, and this no doubt had a good deal to do with the sterling and sometimes pleasantly obstinate qualities which the Doctor possessed. As a dental chemist, he was known to the dental world; his lectures in the Ohio College of Dental Surgery, and his "Chemical Essays," and his large number of contributions to the journals and to the associations were remarkable for their ability. In 1881, he took the editorship of the *Ohio Journal of Dental Science*, having formerly, with Dr. Taft, owned the *Dental Register* of the West. He held many positions of prominence, and was always an energetic and honorable man—one whose genial and sturdy character will ever remain green in the memories of his confreres.

Editorial.

The New Provincial Editor.

In accepting the position of co-editor of the JOURNAL for Ontario, the new editor desires to express his appreciation of the honor, unsolicited and unexpected, which has been conferred in asking him to be the journalistic representative of the dental profession of this Province.

It is, we can assure our confreres, with a marked degree of diffidence and doubt that we attempt to fulfil the duties appertaining to this onerous position.

In a profession so numerous in membership as in Ontario, where there are many who wield a trenchant and facile pen, a better selection might perhaps have been made.

But "what's done is done," and we offer no apology in now addressing you through this medium on matters appertaining to the interests of the JOURNAL and the welfare of dentistry in general in this Province. We assume that every practitioner desires to see the dental profession advance in educational standing and respectability. Nothing gives so much evidence of a cultured and educated people as a vigorous and intellectual press. What is true in general life is true in professional life. A clean, vigorous, professional journal indicates an active, progressive profession.

We ask the dentists of Ontario to give us their hearty co-operation in doing our share towards making this a vigorous journal, and thus show that we are a live profession.

We want bright, spicy articles upon our everyday work.

If you have discovered anything new, don't be afraid of giving it.

Philosophic dissertations upon ethics and morals will be furnished by the p. d. in the press-room.

We want the general news of the profession, removals, changes, deaths, even marriages, anything that is news. We desire to make this journal a bond of interest between every practitioner. This is our object, and for this object we ask your assistance and support.

The new editor has the honor of being on the Board of Directors of the R. C. D. S., and we shall endeavor to give our provincial brethren all information regarding the doings of the Board that is not incompatible with the professional weal.

The state of the finances of the College, the management of the School of Dentistry, the exaction of annual fees, these are all fertile topics, upon which we promise honest information.

In conclusion, if we may be pardoned for going beyond our provincial domain, a word may be received in the kindly spirit in which it is given by those who are toilers in the dental arena in the distant parts of this broad confederation.

A tree is known by its fruit. The seed of dentistry was cast in soil long ago, and it has been nurtured and cared for by willing hands for many years. At last it has reached a vigorous maturity, as is evidenced by its recognition by the leading universities of our country.

Let us who are the successors of those old pioneers do our duty. Let us see that the intellectual fruit which is borne will be something that will redound to the credit of our profession far past the confines of our Dominion.

To accomplish this we now ask the co-operation of our Ontario brethren, and we believe we will not ask in vain. J. S.

World's Columbian Dental Congress.

The May or June number of the JOURNAL will be largely devoted to the interests of the coming congress in Chicago, next August. Dentists desiring to become members, must send in their names and addresses to the officers elected in their respective provinces. It is absolutely necessary that the eligibility of every applicant should be passed upon, in accordance with the Code of Ethics, by these officers. Dr. Cogswell has issued a notice to the profession in the Maritime Provinces; Dr. J. B. Willmott, of Toronto, represents Ontario. Fortunately, Canada has very few men in the profession who have made themselves ineligible. The fee of \$10 is exacted only from residents of the United States.

"Dental Dots."

We do not think our other contributors will feel it invidious if we mention the fact that Dr. Beaçock's "Dental Dots" in the JOURNAL have been regularly received by our contemporaries, with much favor. The last number of the *Journal of the British Dental Association* comments favorably in a passing notice. "A hint to the wise," etc.

A Dentist's Foot.

Has anyone observed that the dentist's left foot is proportionately larger (wider) than the right. Possibly the right may be wider than the left. It depends upon the way an operator stands. Most of us have the pressure of the body on the left, while we have the right on the pedal of the engine. Very few, who stand when operating,

are able to stand square on both feet. One or the other bears the most of the burden.

Would dentists who have been in practice fifteen years or more, examine their bare feet, and see if there is anything in this idea. We know several who stand mostly on the left foot, and the foot is not only much wider than the right, but it is frequently on the knee of the chiropodist for corns and bunions.

A New "Trade."

Under the old indentureship system in Canada, many of the very best "workmen," as well as operators, were developed. Before vulcanite came in, there were as skilful workers in gold and platinum as any that have recently come to the surface in crown and bridge work. Every dentist of twenty-five years' standing can testify, that for all-round dental mechanics, the men and the students whose mechanical dentistry was confined to the precious metals were far ahead of the present generation. To-day mechanical dentists buy their plate, solders, etc., from well-supplied depots. In the old time, every dentist, or rather the dental student, made his own, from melting, refining, to the rolling; while the carving of continuous gum was something artistic, which even modern porcelain work cannot approach.

With the revival of gold work in various forms, a new departure has been made. Student life in the past was constant, honest work in the laboratory for four and five years. To-day, as soon as a student can mix plaster and mess vulcanite, he thinks he is a finished mechanic, and at once aspires to be an operator. (Heaven save the mark!) Not only that—he has got it into his head that theory is a waste of time, and that with a mere smattering of anatomy and physiology, and a foggy idea of chemistry, he is sufficiently equipped to become a full-fledged dentist. If he be neither a fool nor a quack, he discovers his mistake after a few years' practice.

Evidently this state of affairs, and the demands of college life, minimize the use of students to the practising dentist. The first year of indentureship passed in the laboratory is only a labor to the dentist. He gets little or no return for his teaching. Is it not time that we encouraged men of ordinary education, who cannot enter

our ranks, to take up the laboratory work as a trade, under the guidance of regular dentists? The question of wages ought to be as easily settled as the wages of working jewellers, and there is no reason why working jewellers should not find in dental laboratory work an occupation as profitable and as congenial as the jeweller's work-room. In this way, we might solve one of the problems of the labor question, so far as we dentists are concerned.

Personal.

Dr. C. B. Mansell, of Carleton Place, has recently removed to British Columbia, with the intention of practising there.

Dr. J. A. Fissault, of Ottawa, has also gone to British Columbia, where he is interested in mining.

Dr. W. M. Harvey, of Orillia, has been nominated by the Liberal party of East Simcoe to contest that riding for the Local Legislature.

Dr. Geo. Hutchison, of Ottawa, intends shortly removing his office from Sparks Street to his residence, corner O'Connor and Lisgar Streets, where he has fitted up handsome apartments.

Dr. Fred. Capon, of Toronto, has promised us an article for near publication. From the well known ability of this progressive practitioner, something interesting may be expected.

Dr. Mark G. McElhinney, of Ottawa, was recently married to Bertha, youngest daughter of F. W. Harmer, Esq., of that city. Congratulations.

Drs. Pearson and Bosanko, of Toronto, have entered into partnership and will practise over Hooper's drug store on King Street.

Reviews.

Annual Address. By President LOUIS JACK, D.D.S., Philadelphia. Read at the union meeting of the Pennsylvania and New Jersey State Dental Societies, at Cresson, Pa., July 21st, 1892. On another page we make a few selections.

Transactions of the New York Odontological Society, 1892. Philadelphia: J. B. Lippincott & Co., 1893. As usual, *la creme de la creme.*

A Practical Treatise on Artificial Crown and Bridge Work. By GEORGE EVANS. Third edition. Revised and enlarged, with 631 illustrations. Philadelphia: The S. S. White Dental Mfg. Co., 1893. 346 pages.

This is one of the most practical and perfectly illustrated books brought before us for a long time. The fact that imposters deceive the public, and that there is enough malpractice in this line to condemn it, were there no better to commend it, cannot in any way affect the value of the work, which Dr. Evans has demonstrated on paper almost as clearly as it can be in clinics. In fact, no excuse can be offered for complete, or even comparative ignorance on this subject, when such a volume is open to the inquirer.

The preparatory treatment of teeth and roots for crown work is carefully, though not elaborately, given—the chapter on chronic alveolar abscess being, perhaps, insufficient for the average operator who does not get fuller information elsewhere. Evidently Dr. Evans aims to confine his work as fully as possible to the practical features of the mechanical, and in this he has succeeded admirably.

Part II. is devoted to a thorough illustration of all the porcelain and gold crowns and attachments, with and without collars, their application and advantages. There is no part of the instruction neglected, unless we except the many improvements in methods, furnaces, etc., of Dr. Land, of Detroit, which Dr. Evans seems to have overlooked. For instance, on page 144, an illustration is given of Dr. Land's Midget furnace, and no mention made of his bi-muffle gas furnace, which absolutely overcomes the liability of gassing, and in all respects is very superior to any other. It does not seem to us as if sufficient credit was given, as to priority of invention, to Dr. Land for various improvements which are mentioned in this book. This *en passant*.

Part III. beautifully illustrates the construction of bridge work, removable and u: removable. Part IV. gives recipes for plates and solders, and simple advice as to moulds and dies, soldering, etc.

The work is creditable in every respect to the author and publishers, and will no doubt have a very extensive sale in Canada, as it is sure to have in the United States.

Annotations.

They do these things better in England than they do on this American continent. At the annual dinner of the Dental Hospital of London, under the presidency of Sir Richard Quain, allusion was made by Mr. Morton Smale, Dean of the School, to the necessity for a new hospital. He said that an expenditure of £40,000 (\$223,750) would be required. The staff and two or three friends of the hospital had promised £3,000. "A dental hospital never receives the

public support that it deserves, because it is felt that it treats so small a part of the body; but he could assure them that the proper fitting up and the carrying on of a dental hospital was a very costly proceeding. Forty donations of \$5,000, eighty donations of \$2,500, and one hundred and sixty donations of \$1,250, and the amount was forthcoming. He was willing and he was sure other gentlemen in the room were also willing to be numbered among the one hundred and sixty."

It may show us on this continent the splendid unselfishness manifested by quoting a few of the donations promised for the purpose from members of the staff and friends of the hospital, most of them practising dentists:—

Ash & Sons	£500	Arthur Underwood	£100
Joseph Walker, M.D.	300	Wm. Ash	100
The Dean	250	H. Mummery	100
J. F. Colyer	250	John Ackery	100
Ashley Gibbings	200	F. Ewbank	100
A. I. Woodhouse	200	F. W. Hewitt, M.D.	100
R. H. Woodhouse	150	W. B. Paterson	100
Stover Bennett	105	John Fairbank	100
F. I. Bennett	105	G. Hammond	100
Dudley Buxton, M.D.	105	T. Arnold Rogers	100
Sir John Tomes	100	S. & B. Longhurst	100
S. J. Hutchinson	100	Clayton Woodhouse	50
F. Canton	100	W. H. Woodruff	50
E Lloyd Williams	100	H. Baldwin	50
W. Hern	100	W. C. Smale	50
C. Truman	100	J. P. Smith	50
L. Matheson	100	Nine others, £50 each	450
D. Hepburn	100		

A large number of other donations varying from £30 to one guinea appear in the *Journal* of the British Dental Association. John Bull does not talk much sentiment. If he was only a Gascon as well as a cool Briton, what bragging he could indulge in when he puts his hand in his pocket.

At the National Dental Hospital and College Dinner, held at the Holborn Restaurant, Sir James Crichton Browne, M.D., F.R.S., presided. The chairman referred to the common bond of anatomical and physiological knowledge between the medical and dental professions, and expressed his opinion that a dentist should have a seat upon the general Medical Council.

* * *

Dr. Louis Ottofy, Masonic Temple, Chicago, is giving valuable hints in the weekly *Dental Tribune* (\$2 a year) now in its twelfth number. As all the dental world is going to the Congress next August, all the dental world should read it.