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Dominion Dental Journal

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Original Communications

PRESIDENT'S ADDRESS.*

BY DR. J. A. ROBINSON, MORRISVILLE, VT.

You may think me pessimistic in my views relative to the subject of dentistry, more apt to be looking on the negative side when I undertake to say anything.

The ignorance or indifference of many as to the value of their teeth, as well as the want of care of them, is deplorable. Many ignore the worth of their teeth, think little more of loosing a tooth than loosing a hair of the head. Much less do they think it necessary to keep their mouths in a clean, healthy condition; most people wash their hands and faces, but how many their teeth? Worse than all this is the disregard many show for the teeth of their children. If most of the teeth of our generation are past redemption, all the more reason why the teeth of the coming generation should receive proper attention. It may be in a large majority of cases that the want of means prohibit some from having much done on their teeth; but in these days of brushes, soap and water, there is no excuse for going with filthy mouths, and clean teeth will not decay. Along with this comes another evil: the having of a little done on the teeth and not completing the work. A little work on the teeth is like a little learning—dangerous. The cry then is that "dentistry does not pay," and surely it does not when done in that way, with dollars

* Read at the 23rd Annual Meeting of the Vermont State Dental Society, Burlington, Vt., March 15th and 17th, 1899.

paid out to fill a few of the teeth; with the work on many not done, and no care taken of those that have received attention. The result is a complete breaking down of all, with a cry of dissatisfaction toward the dentist and all pertaining to him, and nearly every attempt made to educate the public is usually looked upon as simply another method of getting their money without a "quid pro quo."

How much of the dental literature of the day are we reading? Not how many of the journals do we subscribe to or receive sample copies of, but how much do we read. The field of dental literature is well and ably filled, and I advise taking as many of the journals as one can, and read them. This is adaptable to all, and particularly to the student and those who are just starting into practice. Keep up your reading, a little every day; and one thing more, keep with this the habit of adding to your library at least one new book on the subject of dentistry each year, and make all you can of that book—read and study it. To me it matters not so much who publishes the magazines and books as it does as to what is in them; neither does the highest subscription price or largest number of pages always mark that which is the best.

May I say a few words relative to our society meetings. If more were but willing to try and do what they can to help, we would have a flourishing society indeed. All have a talent in some direction; those little ideas, that come to us while at work, helped us and will help others if we will but tell of them. Many times we have been at some knotty point when from but a word, perhaps dropped by some one, has come the idea that has helped us out of our trouble. By personal experience I know it is not always possible for the committee to get what they want for the programme; it is difficult to get anything when all either pay no attention to requests or ask to be excused. Our dues are very small and it costs much to procure an outside talent, and it would not be right either, it is therefore evident that more of our own members should assist or our dues must be increased. I have thought our meetings would, perhaps, be of more benefit if there were a less number or variety of subjects presented, and more time devoted to each—if each session was devoted to one subject. Several papers from as many different writers being presented, would it not give more opportunity for discussion, thus treating the subject better and with more beneficial results, than if each of the four or five papers were all different?

For the clinics, I like the ideas presented your president last year, and as has been carried out by others successfully, of keeping the meeting in session during the clinics, setting the chairs on raised platforms and using the blackboard. In nearly all oper-

ations we are more or less conversant; it is not necessary that we watch every cut of excavator, revolution of bur or tap of plugger. The operator, by using the blackboard and crayon, can show what he is doing and can do better work than if encompassed by a crowd. It is but a few can get near enough to hear, much less see, if all are crowding up, and soon those on the outside, getting tired, pronounce the clinic a failure and the clinician is not shown the attention and respect he is entitled to. I think an hour devoted to an "experience meeting," where all are at liberty to ask questions and all bring some little items of interest, would be of great value and the cause of much good.

There can be no fault found with the present committee, for I know they have labored long and hard for their programme, but may there not be something here worthy the attention of committees to come? The advances and improvements in our profession are many and varied, and it behooves us to keep eyes and ears open to catch and hold whatever is valuable. Our meetings are for that purpose, as we have but one a year, and only a few short hours at that. We must make them as interesting and profitable as possible. Two or three things more might be alluded to with benefit, I think. One is having a register in the keeping of the secretary, wherein all visitors, as well as members in attendance at our meetings, shall register their names and addresses; it would make a very desirable souvenir if of no other value. Another is the forming of district dental clubs in different parts of the State, to meet at least once a year for an afternoon and evening. I think such a scheme might be instigated and result in a more friendly feeling among neighboring dentists, as well as in much good to each one who attends. I also think it would be a means of educating the public. If they saw the dentists were interested enough in their business to meet often to exchange ideas, they would be lead to believe there was really more in dentistry than they thought. I know attending our meetings has been a benefit to me; not only that I have learned many things, taken you by the hand, exchanged ideas, but my patients think more of me for these outward signs that I am keeping up with the times.

We read much in regard to dental education. I think there is need of it, especially education of the dental colleges. One is led to think by what some writers have to say that the colleges are all above reproach; but as they will admit within their walls those who are lacking education, as well as those devoid of good principles and character, it looks as if there was need of reform somewhere. It appears that some of the colleges are not much better than those nefarious concerns which sell their diplomas outright. When those who do not possess a common district school education, who could not possibly pass the preliminary examination as

required by the prospectus of the college if strictly adhered to, who could not pass the examination of a State Board because of a lack of education: I say when colleges which stand among the best admit such, it comes very near selling its diplomas to any one who has the money to pay for them. Not only are such allowed to matriculate, but to open an office in their room and practise at dentistry, and that, too, during their first year. It must be it is not to the fitness of their matriculates they are looking, but to the money they will get for their diplomas. I think there is trouble with the colleges; if they were more diligent in the performance of the duties they owe the profession there would be fewer of their graduates that become a disgrace to an honorable profession and to honest men in it. Our ranks are becoming filled with more and worse scum every year owing to the slackness and greed of gain shown by many dental colleges. Young men of disgraceful habits are being turned into the profession to prey upon society and bring disrepute upon us, but we quote extracts from a paper recently read by Dr. Wilson, of Iowa. He says in part, "'Never before has quackery developed itself in high places so boldly as at the present day. I mean by this that fairly well educated men, dental college graduates who are devoid of principle, are swindling the public, degrading the profession and endangering human life as never before. . . . . It is true that the door of admission to practice has been closed against an ignorant class of men who were unable to pass the examination of the State Boards, yet a more shameless class of graduates from our colleges is growing larger day by day. . . . . The remedy for this growing evil lies almost entirely with the colleges, and I would suggest that they be much more careful in receiving students, for they should know what kind of material they are to work upon before allowing a young man to matriculate. The question should not be how large a class can be secured, but what is the character of the students that are being admitted. A man with a dental diploma who does not possess a good common school education is a dangerous person to be admitted to practise. Such a dentist will rarely take any interest in our dental societies, except it be for purely selfish purposes. Dental literature, so abundantly supplied through our journals, will not be relished by him because he cannot comprehend its meaning. . . . Our dental colleges are the portals to our profession, through which no unworthy applicant should be allowed to pass." To my mind this goes to show that we cannot look to the dental colleges to remedy these evils, for it is too evident they care more for the large classes and the accompanying fees than for the character of those admitted, as just quoted from Dr. Wilson's paper. We must rely on our State laws and our State Board of Examiners to do the work left undone by the colleges. To the State Boards

I would say: Guard well the door entrusted to your keeping. Do well your whole duty. Be as sure of the good character of those who apply to you for admittance as you are to their professional ability. Sift the incoming men to the best of your ability. To you we look for aid to keep unworthy ones out. Be sure that none but such as are of good repute and well qualified are admitted.

The cry to down the Examining Boards as being unnecessary is the work of the colleges I believe, that they may the better increase the number of diplomas sold and to scatter them everywhere. I wish also to read a short quotation from a recent editorial in the *Digest:* "In dentistry the preliminary requirements are far too lax. Almost any young man can to-day enter a dental college if he has money enough to pay the necessary fees. His education is a secondary consideration, and his moral character is not scrutinized too closely. The exceptions to their propositions, are exceedingly rare, and when an applicant is rejected by our school he is almost invariably admitted to some other in the association."

I am glad to be able to say, however, that all dental graduates are not to be classed with these, for there are many young men worthy in every way, who have fitted and are fitting themselves for the profession of dentistry, who are ornaments to any business they may enter upon. It is not of these I have written, but of those who are dragging down our profession.

CONSCIENTIOUS DENTISTRY.*

By A. J. Sawyer, D.D.S, Manchester, N. H.

Mr. President, Ladies, and Gentlemen of the Vermont State Dental Society:

Some weeks ago I received a very kind invitation from the chairman of your Executive Committee to give a clinic before this society, which I very willingly accepted. I then received a very modest invitation from him, saying if I had a paper which I had read before he would be very glad to have me read it here. Well now, I had several, and good ones too, but they were not my own; and while he did not say anything about their authorship I thought it only fair to presume that he meant mine. I did, however, have one which I had read before our New Hampshire Society, but that

*Read at the 23rd Annual Meeting of the Vermont State Dental Society, Burlington, Vt., on March 15-17, 1899.

was somewhat like an old dress, it was not quite suitable for this occasion although it had some material in it which might be used; so I thought by writing it over and putting some new with it to give it a little color, it might be presentable, especially as your chairman had intimated that "any old thing" would do.

But to be serious, it was with feelings of more than fraternal interest that I consented to read this paper here to-night.

The good old State of Vermont has a very warm place in my affections—affections which I have inherited, which have come down to me through four generations. For it was to help your great-grandfathers defend our common country that my great-grandfather, Captain Ephraim Sawyer, came up here from New Hampshire to assist at Ticonderoga, and later with General Stark at Bennington, helped to gain that grand and glorious victory which was the beginning of the end of Burgoyne's invasion. But we are to be congratulated that we live in happier days; that the country which was then our worst enemy is to-day our best friend; that the lessons which those brave patriots taught the mother-country she learned well, and as a result to-day England gives to her colonies the broadest possible liberty; that the policy of George III. and Lord North is not the policy of the good Queen Victoria and her able minister Salisbury. While here my worthy ancestor became so much attached to your State and people that he decided to make his home among you, and not far from this place he lived and died; and from here my grandfather, the Rev. Ephraim Sawyer, went forth, with his young bride, to that then new and now great State of Pennsylvania, to carry the good news of God's love to men. And so, to-night, I have come back home, as it were to read you a paper on dentistry and I have chosen for my subject

Conscientiousness in our Daily Practice.

First of all let me say that I believe there are certain essential elements of character which are necessary to a successful dental practice; and by successful I mean that kind of practice which saves to our patients the most teeth in a useful and comfortable condition, relieves humanity of the greatest amount of suffering, and lifts the operator above that low and grovelling pursuit of mere dollars.

Do not misunderstand me. I believe that to gain a competence for ourselves and those dependent upon us is worthy of high endeavor and persistent effort, but these should not be our highest or only motives.

To be such a dentist one should have a great heart and an equally well-developed conscience. If nature has not given him these he should make haste to cultivate them. Both are essential

If he has a great heart and a small conscience he will be unduly sympathetic and afraid of causing the necessary discomfort and pain essential to a thorough operation. Or, on the other hand, if the conscience be fully developed and the sympathetic nature small, he will do splendid work, work which will save the teeth of those who have the fortitude to bear the suffering he will require of them.

Of the two extremes the latter is undoubtedly preferable, but neither will attain that high degree of success which he attains who possesses in his composition these elements nicely balanced. Some one has well said, "There are three ways you may try; there are three interests you have to consider; and it will depend upon the order in which you consider them how success will be measured out to you.

"The first interest is your own, and it may seem to you the greatest, while it is really the least. The second interest is truly greater, for it is the interest of your professional brothers; but the last is the greatest of all, for it is the interest of your patient, and with that is eternally related the interest of the art you practise."

The interest of the patient then should be our first consideration when he or she presents himself or herself for our examination and advice. It is here that our conscience should have full play.

We have many things to consider and in a measure decide, such as the physical ability of our patient to endure a certain operation, her financial ability to compensate us for it, our own ability to properly perform it, and what under all the circumstances of the case would be best for our patient.

To extract a tooth which, by reasonable care, skill, and patience on our part, and a willingness on the part of the patient to bear the necessary discomfort and give us a suitable fee for our services, could be saved, is in the highest degree reprehensible.

The sterilizing of instruments. How much that is important and far reaching is contained in these four words! How much of happiness or misery, life or death even they may contain, according as they are observed or neglected.

To use mouth mirrors, forceps, trays, rubber dam, burs, and other instruments in the mouths of different patients without first thoroughly cleansing and sterilizing cannot be too severely condemned.

When we think what a hot-bed of germ-life the mouth is and the seeming carelessness of so many dentists, we wonder that diseases are not more often than they are communicated in this way. I have been amazed when visiting dental offices to see forceps put back in the case without any attempt being made to cleanse them. And how often are burs and excavators used without cleansing and without the dam. It seems to me that the

danger of transmitting diseases from one patient to others by the careless dentist is peculiarly great. His fingers and instruments are so constantly going from one mouth to another that even though ordinary care be used there might still be danger. But what can be expected where no care at all is taken? Where rubber dam and finishing strips are used over and over, and even where the hands are seldom washed?

I remember calling upon a dentist, a college graduate, and while there he invited me into his laboratory and there I saw stretched across the end of the room a line on which was hung to dry several pieces of dam. He asked me if I used my dam over. I replied in the negative. He said he never used it on different patients but did on the same ones. I have no doubt it is possible to thoroughly cleanse and sterilize a piece of rubber dam, but I think the saving is too inconsiderable and that the patient would much prefer to pay an extra fee and be sure it had not been used before either on herself or others. In another office I saw a dentist at his chair finish a gold filling, and saw him take from a drawer in his cabinet, which was nearly full of partly worn out strips, some of these to finish the filling, and, when through, back they went into the drawer again, to be used on the next victim. I have also seen dentists in cleaning teeth and polishing fillings for different patients dip their rubber points into the same box of pumice until it was all gone, when it would be refilled and the same thing repeated.

What possibilities, indeed what probabilities of infection there lies in such careless practices. Perhaps none of these charges could be justly laid to any of you; but is there one here who honestly believes he is, at all times, as careful as he should be? If there is such to him I uncover my head.

On every operating table should be some means of sterilizing instruments. Forceps and trays may be cleansed and sterilized in boiling water.

The rubber dam, when a clean piece is used, is a great preventive of infection, and besides makes it possible for the operator to do better work.

It has been said that you can judge of a nation's civilization by the amount of soap it uses. I believe you can judge of the kind of dentist a man is by the amount of dam he uses (rubber dam).

These dangers of infection through the carelessness or ignorance of the dentist have been little thought of by our patients in the past; but they are beginning to realize the dangers and appreciate our efforts to prevent them.

To our patients we owe the best that is in us, and he who gives freely his *best* services, every time, is certain to reap a rich reward not only pecuniarily but in the gratitude of his patients, the respect and esteem of his profession, and the conscious satisfaction of

having done his whole duty. Happy, indeed, must he be who, when he has lain down the mallet and chisel, can conscientiously say of his life work, well done.

Conscientiousness with our Professional Brothers.

To our brother practitioners we should be respectful when respect is possible (there are times when it is not). We should be charitable in our criticisms and generous in our praises of him who deserves them.

To say a kind word of a neighbor dentist does not injure us, and it may help him. Indeed, I believe to severely criticise the work of a former dentist to a patient does us more harm than the one so criticised.

Old Dr. Dixon, of Philadelphia, once told a story which nicely illustrates this point. He said a lady presented herself to have her teeth examined, and after having looked them over carefully he said to her, "The man who did that work for you didn't understand his business." She turned to him in some surprise and said, "Perhaps not, doctor, but you did it yourself." The only reply he could make, and it was no doubt true, was, "Well I can do better than that now." It taught him a lesson in charity towards others which he never forgot. It was work done in his early practice before he had acquired much skill or experience. We must all, I think, look back upon our first work with a good deal of humiliation. So we should be especially charitable toward the young practitioner; try to help him up, not push him down. Look upon him as a compatriot, not as a competitor.

To our professional brothers we owe much. Very little that any of us do is original with ourselves, and it is our duty to add as much as we can to the common stock of helps. Most of you, I have no doubt, have some little device, method, or trick of your own which has helped you over some difficulty and might be of benefit to others if presented here at our meetings, and yet when asked, few of you have anything to present. We should all be as anxious to give as to receive and thus add greatly to the interest of our meetings. Every member of every dental society should be on the alert to see what he could bring to the next meeting that would help some one. What has helped him will be very likely to help some one else. It is this kind of intercourse that is the soul of progress.

It is also important to be conscientious with ourselves. When we have completed a splendid operation, we should be properly compensated for it; it is our due and we should have courage to demand compensation commensurate with our skill, when the patient is able to meet it, and not be influenced by what others get for an inferior piece of work.

But the question of compensation has no proper place in our consideration after we have once consented to perform a given service. Perfection, then, should be our highest aim. We should do it as we would if we were staking our whole professional reputation on that single operation. To do such work requires time and patience, and the amount one pair of hands can accomplish in a given space is limited. You who have a full practice realize how difficult it is at all times to give to every operation the time required for such work, but your conscience should be kept bright and you should attempt only what you can do well. Try and see how *well* rather than how *much* you can do, and in the years to come your cash receipts will be more, your curses less, and your practice will be lifted up where competition cannot affect you. Or, in other words, if you would ascend the hill of your professional ambition, ask yourself this question at the end of each stage of every operation, "Can I make that any better?" and on the answer you give will depend the distance you will rise towards the summit of your ideal.

Let us then remember that we are not only building for time but for eternity, not only monuments of silver and gold, but those grander structures—conscience, character, love.

Gentlemen, I thank you for your courtesy and kind attention.

ARTISTIC CROWN FILLING.*

By Dr. E. O. Blanchard, Randolph, Vt.

Some critical persons may consider my title as rather strained and presumptive, but, like Shakespeare, I believe there's a great deal in a name. Doubtless you may have heard the somewhat rude but forcible story of the man who, suffering from a painful tooth, went in search of the proper man to remove the offending member.

His literary attainments being limited, he was rather perplexed upon finding two door-plates on adjoining doors, one of which announced "John Weeks, Dentist," and the other "Adam Strong, Dentist." With difficulty he spelled out "J-o-h-n, John, W-e-e-k-s, Weeks," whereupon he muttered, "He's no good for a dentist." Then, turning to the other, he read "A-d-a-m S-t-r-o-n-g

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*Read at the 23rd Annual Meeting of the Vermont State Dental Society, Burlington, Vt., March 15-17, 1899.

D-e-n-t-i-s-t," which he construed and pronounced in his own way, "A-dam Strong Dentist." "Ah!" exclaimed he, "that's the man for me; no weak dentist could ever pull my teeth."

We cannot fail to observe that names and titles often influence our minds very perceptibly, either pro or con, and my head-line may possibly serve to remind us of our duties in elevating our profession to the highest standard of excellence, realizing that our operations, although matters of every day occurrence, are by no means lacking in importance; for, without any disposition to boast, we may say that many of them truly require fully as much delicacy of manipulation, skill, and experience, as anything that is done in any other branch of surgery.

Every dentist prides himself on his ability to place a nice crown filling in a molar; but who has not found such cases (generally, of course, the work of some other dentist, but *occasionally* our own) where decay has continued to work about the filling, evidently from some of the fissures which extend deep into the tooth between the cusps? Many of the posterior teeth that we are called upon to fill present prominent cusps, between which the sulci penetrate very deeply, the enamel usually wrinkling in such heavy folds as to afford an excellent lodging-place for food-particles and acidulated saliva, and these are usually allowed to remain until fermentation takes place. The chemical action thus induced penetrates and destroys the thin enamel at the bottom of the fissures, then attacks the dentine, and as this neat little operation is hidden and protected by the heavy folds just mentioned, extensive decay often occurs before it is detected.

Perhaps it will not be improper to here mention that this has heretofore been the generally accepted notion regarding the cause of decay in the teeth; but now, a "germ theory" has sprung up, in which it is claimed that certain germs, resulting from the aforesaid fermentation, are really the cause of the mischief. We will not stop to discuss this matter here, however, as it amply suffices for our present purpose to know that said decay exists, as above stated.

It is an extremely difficult task to properly place a crown filling, even after all decay is carefully removed, the various fissures freely opened up, and the desired shape obtained, without allowing the material—whether gold or amalgam—to overlap the margin of the cavity, and especially to continue along the line of the fissures for some distance beyond the true edge of the cavity; consequently, a little barb or point is usually left extending along the bottom of the fissures for some distance beyond the true edge of the cavity and also beyond all signs of decay. By the action of mastication, or from other causes, this little barb or projecting finger of the filling is almost certain to become raised or started up from its bed,

where it was packed over sound tissue, thus affording a far better opportunity than ever for food and microbes to find secure lodgment, so a recurrence of the process of decay is, sooner or later, assured.

Now by what means can we overcome this difficulty, and otherwise improve this kind of work?

Some years ago, when I had applied myself long and patiently to the finishing down of a filling of this sort in some troublesome molar, I often felt assured that the rough, deep-fissured and crinkly-crowned teeth had a disagreeable habit of coming my way. I often experienced great difficulty in polishing coronal fillings to my own satisfaction, fearing that if much of the enamel was removed it might prove injurious to the tooth. I soon observed, however, that nature apparently had no scruples against removing enamel on the coronal surfaces of these posterior teeth, for in the mouths of many of my patients whose teeth showed little, if any, signs of decay, the enamel had been worn entirely through, and even into the dentine, by the friction of mastication. The conclusion finally drawn therefrom was something as follows: Where the enamel is very uneven, presenting deep folds and wrinkles, it is better to work it down by the use of stone wheels, cutting down between the cusps, forming semi-circular concave sulci, which should be polished to a smooth surface, so that there shall be nothing to hold accumulations of any sort; then in the act of mastication the food will easily glide across these surfaces, tending to keep them constantly cleansed and well-polished.

As all practitioners will doubtless admit, there is little danger of being too exact and thorough in finishing and polishing our fillings, although this is somewhat severe upon the endurance of our patients; but while performing this part of my task, I am often made to realize how difficult and painful is polishing of any description, especially is this true when applied to our every-day lives and characters.

Perhaps I ought to be rather more explicit regarding my method of preparing corono-approximal or even simple coronal cavities, as herein lies one of the chief objects of this paper. I remove the overhanging enamel so far as desired with chisels, then run out into the fissures, opening them up freely, even to the extent of "extension for prevention," with dentate fissure-burs or drills; then by the use of stone wheels I grind down into the fissures between the cusps, making moderately deep and concaved furrows. All the natural and normal sulci between the cusps are followed, and in the molars, if necessary, from buccal to lingual and from mesial to distal limits; also the disto-lingual sulcus of the superior molars are concaved and ground out until all the fissures and wrinkles are entirely obliterated, forming an open furrow in the

place thereof. Therefore, as will readily be seen, an excellent margin is left, to which we can now grind down the filling with the same stone used in cutting out the trough, thus leaving a flush, smooth surface where tooth and filling join.

After removing decay and so forth, I go around the entire periphery of the cavity with very sharp chisels, cutting off the edges of the enamel so as to remove all projecting corners, working the lines of the same into rounded curves so far as possible, leaving few straight lines and no acute angles. The cavity walls should be perpendicular from the bottom of the cavity to periphery. The final cutting and shaping of the enamel walls should always be done with a very sharp chisel or an extremely fine corundum stone, as the fissure-burs and drills are liable to split, rough up, or pulverize the edges of the enamel-layers, so that no one could expect a filling to remain tight when packed against such a ragged wall.

While speaking of packing fillings, I am reminded of the recent expression of a gentleman which struck me as too good to be lost. After intently observing the process of putting in a gold filling for some time, he at length said, "I see you use Klondike gold." Not clearly apprehending his meaning, I naturally asked him how he knew—how he could tell Klondike gold from any other; and as I was passing a piece of gold through the flame to anneal it, he coolly remarked, "I see you have to thaw out every piece before you can use it."

Now, after a filling has been properly placed in a cavity prepared as above directed, extreme care being exercised in packing the edges properly against all the walls, etc., the process of finishing and polishing can be accomplished with some degree of satisfaction, for there is now little or no excuse for leaving an overlapping or imperfect edge, as we can distinctly see and know when we have worked the filling down to an even surface with the surrounding tooth, and nothing but solid filling is exposed to the wear and tear of mastication.

The use of this method of grinding the occlusial surfaces of the posterior teeth, is not recommended for deciduous teeth; for instance, if one is working for an uneasy boy, who is wiggling and twisting around until he gets his head into the cuspidor and his feet into your stomach while you are vainly endeavoring to keep a cavity dry long enough to get any kind of stopping in, does not tend to add any incentive to one's ambition to make aud finish an extra fine filling; but for older patients this method will aid to secure the three requisites demanded of a filling which are strength, durability, and beauty, and which certainly are expected of an artistic crown filling.

PAINLESS EXTIRPATION OF LIVE PULPS WITHOUT CATAPHORESIS.*

By P. M. Williams, D.D.S., Rutland, Vt.

With the increasing tendency to the removal of all pulps that seem likely to die of themselves within a comparatively short time, there comes a demand for some practical and reliable method by which this operation can be performed without pain and without injuring the important pericemental membrane. Devitalization by means of arsenical compounds has proven to be a very unsafe method, to say the least, permanent injury to the pericementum often resulting. We naturally turn to cocain for a solution of the problem, and applied cataphoretically the great obstacle to its use, the impenetrability of dentine, is overcome. The use of cataphoresis is, however, attended by many difficulties, and it is safe to assume that owing to these difficulties there are comparatively few dentists using the method to-day. Partial devitalization with arsenic and the removal of the greater portion of the pulp with crystals of cocain or a strong solution is usually painless, leaves the pericementum intact and presents so few difficulties as to recommend itself over cataphoresis in ordinary practices. It is often desirable, however, to remove the pulp without the delay necessary in the use of arsenic, and in cases of this kind I have used a solution of cocain-hydrochloride in alcohol and ether. This solution either owing to an increased capillarity over the fluid in the dentinal tubuli or some other cause, obtunds thin layers of the dentine so that they may be removed or drilled through, applying the solution as soon as the slightest sensation appears, until the pulp is reached without pain. After gaining access to the pulp a few cocain crystals dissolved in the blood that follows puncture, and carefully pumped into the canal with a broach obtunds the remaining fibres. Either of these methods is extremely simple, safe, and requires little time.

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* Read at the 23rd Annual Meeting of the Vermont State Dental Society, Burlington, Vt., on March 15-17, 1899.

Medical Department

Edited by A. H. Beers, M.D., C.M., D.D.S., L.D.S., Montreal, Que.

A CASE OF A TOOTH IMPACTED IN THE LEFT BRONCHUS: GANGRENE OF THE LEFT LUNG: DEATH.

A woman, aged 26, was admitted to the Victoria Hospital, Burnley, on December 18th, and died on December 30th, 1897. She stated, on admission, that four days previously she was given gas for the purpose of having a tooth extracted. At the critical moment she appears to have taken a deep breath, the result being that the tooth, which must have escaped from the forceps, was inhaled into the air passages. Thereafter extreme cyanosis occurred, and she had a feeling of tightness in the throat, with dyspnea, and a hard dry cough, aggravated by speaking or change of position. She had also a vague feeling of something being fixed inside the chest, but could not indicate the position. When I saw her she was lying on her back, with livid lips, and coughing in frequent paroxysms, but without expectoration. The coughing was much aggravated by attempts to speak, and by change of posture. The left side of the chest scarcely moved at all on respiration. There were no breath sounds audible over the left side of the chest, with the exception of tubular breathing at the left apex, accompanied by small moist *râles*, and this was indistinct posteriorly. On the outside of the left nipple there was a small area over which a friction rub was audible. On the left side, from the level of the nipple down to an inch from the umbilicus and backwards as far as the mid-axillary line, there was a well-marked area of hyperesthesia, which corresponded roughly to the distribution of the sixth, seventh and eighth dorsal spinal roots. The breath sounds were harsh on the right side but otherwise normal. The pulse and respiration-rates were much quickened. During the next few days there was little alteration in the patient's condition, but the temperature assumed the hectic type. On December 27th, thirteen days after the accident, there were well-marked signs of gangrene of the left lung. The breath was offensive, and there was expectoration of a brown and foul-smelling sputum. The lower cervical glands on the left side were enlarged, and there was a well-marked friction rub in the left axilla. Her condition became gradually worse until death occurred on December 30th. At the necropsy on December 31st, 1897, I explored the trachea up to the larynx, but no foreign body was found there. All over the left pleural cavity there were numerous recent adhesions, and on separating these some grumous fluid came away from the lung. The heart was flabby and rather smaller than usual, and its

right side was dilated. On cutting open the left bronchus the missing tooth was found. It was very tightly wedged in the bronchus, its point being downwards and the crown upwards, so that it had apparently acted as a "ball valve." It had almost ulcerated through the left bronchus, which above the situation of the tooth was congested and full of grumous fluid. On following the left bronchus into the lung there was found an irregular passage full of a brown foul-smelling fluid. The whole of the left lung was gangrenous and crepitating, and on squeezing the lung substance there exuded a fluid of the character described. The bronchial glands were enlarged, and there was also an enlarged gland at the root of the neck on the left side. Above the impacted tooth no bronchiole was given off, so that there must have been entire obstruction. The right lung was congested and edematous, showed commencing consolidation at the base. There were two cavities in the left lower jaw, and into the hinder one the tooth, which was carious, fitted exactly, its direction being forwards and inwards. This case seems to illustrate the effects of obstruction to a bronchus, as Dr. Sevestre has recently pointed out in the *British Medical Journal*, the early stage being collapse of the lung, and the later, inflammation, leading sometimes to the entire disorganization and gangrene of the lung. The tooth did not appear to have been tightly wedged in at first when the patient was seen, but seemed to have become so owing to the incessant attempts to expel the foreign body, and with each attempt the conditions must have been aggravated by the suction in during inspiration. The gangrene would be excited both by the retention of secretion, and by the introduction of septic material from the tooth.—*James S. Warrack, M.A., M.D., Demonstrator of Physiology in the University of Aberdeen, in British Medical Journal, Feb. 18th, 1899.*

DENTISTS' FEES.

A dentist in practice in the provinces has again put to us the question, often raised in our columns, as to whether it is proper for dentists to charge medical men, and members of their families dependent upon them, fees for services rendered in the treatment of disorders of the teeth. We have made some further inquiries as to the custom upon this point, and a dentist of large experience, whom we have consulted, states that there cannot be said to be any accepted rule with regard to fees between medical men and dentists. He adds that some leading consultants have been in the habit of freely accepting fees from dentists, even when the latter have possessed full medical qualifications, whilst others with absolute firmness refuse to do so. Leaving personal friendship out of the question, the custom of waiving fees doubtless has its

origin in a notion of reciprocity, and where this in any form exists the dentist doubtless does well to attend both the medical practitioner, and those for whom he would in reality be paying, without fee; but there is no obligation that he should do so, and it must be remembered that the consumption of time in dental operations is very heavy, so that to any dentist in busy practice to see one patient involves the refusal of another; hence the dentist cannot reasonably be expected to see without fee the families of medical men who are perfect strangers to him. A short time since a curious result ensued from this waiver of fees. A dentist, himself medically qualified, had been in the habit for years of attending a medical friend, and of accepting from him in return medical attendance upon himself and his family. There had been no thought of payment on either side, but both being of business habits noted in their day books all attendances. The medical practitioner died, whereupon his executors sent in a claim for attendances, and intimated that they should enforce it by legal measures if need be. The dentist thereupon sent to them a counter-claim, which happened to amount to a good deal more, and this the executors declined to pay unless compelled. The result was that both claims were dropped; but the legal point was brought out that any medical man can claim fees from any other, and that any waiving of fees is merely a piece of good fellowship, not binding upon executors or trustees in bankruptcy. It is therefore a matter upon which each must judge for himself. A great deal of gratuitous work is done by dentists for medical men and their families, and vice versa; on the other hand, there are many medical men who will not accept it without making some return, and many dentists who, whether medically qualified or not, insist upon paying fees for medical attendance for themselves or their families.—*British Medical Journal, Jan. 21st, 1899.*

TE RELATION OF DISEASED TEETH TO GENERAL DISEASES.

In a recent work by Oscar Amoedo (Paris, 1898) on the medico-legal aspect of affections of the teeth, there is an excellent chapter on the relation of diseases of the teeth, gums, alveoli, etc., to various general diseases. Infectious diseases, such as la grippe, scarlatina, variola, typhoid fever, erysipelas, etc., provoke dental troubles, which vary in accordance with the patients' age. In teething children trophic or follicular troubles, which, according to their intensity, produce erosions or total loss of the gum. Infectious diseases, and particularly the grippe, are frequently accompanied by periostitis and alveolo-dental abscess, and may also cause sinus disease. The alveolo-dental periostitis of diabetes is characterized as an initial sign of that affection by a period of

simple deviation. In the second period the teeth loosen with alveolar catarrh. In the third period the teeth fall out. There is sometimes a further state of osseous absorption, which may or may not have been preceded by gangrene of the gums. Besides these lesions the teeth themselves may be affected by caries. This happens often, and begins usually at the last molars. In time, only the roots remain to the patient. Arthritic, gouty and rheumatic subjects are predisposed to tartar. Other accidents are alveolar and alveolo-dental periostitis, dental necrosis and fall of the teeth; simple and aphthous gingivitis; alveolar absorption, caries and necrosis of the jaw. Gout is also said to produce wearing away of the teeth. Hereditary syphilis leads to micro-dontism, nauism, amorphism and vulnerability of the teeth. Tuberculosis may attack the gums. In rickets, dental anomalies are not constant; there may be alterations in the enamel, its prisms being disposed sinuously, with large interspaces. The dentine may be remarkable for its large canaliculæ. In locomotor ataxia the teeth often fall out without pain, hemorrhage or suppuration, and irrespective of previous decay. This process begins in the upper jaw, and is generally followed by alveolar resorption. Pregnancy is often accompanied by gingivitis. During menstruation, women, and especially young girls, are subject to attacks of alveolo-dental periostitis. In osteomalacia the teeth rarely are directly involved, but are loosened by changes in the alveoli. In scurvy, the teeth readily loosen and fall out, owing to the state of the gums. In morphinism the ivory suffers chiefly. There is no pain nor periostitis. The course is rapid, the hair often falling at the same time. May be due to central influence or altered saliva. In osteomyelitis of the jaw the pus may gain the alveoli and loosen the teeth, especially the wisdom teeth. The author finishes by alluding to actinomycosis and stomatitis. He fails to mention the effects of persistent nasal obstruction upon the upper teeth.—*Medical Review of Reviews, Feb. 25th, 1899.*

THE TEETH OF THE RECRUIT.

Many a man of good physique is rejected both by the army and navy Medical Examining Boards on account of defective teeth. It is, we believe, taken as a broad rule that when the teeth are lost or decayed there is no chance of the recruit being admitted to either service. Not only amongst the men, but also amongst those who wish to enter the service as officers, the question of good or bad teeth is an anxious one. For the recruit who wishes to join the ranks to be refused is not an actual monetary loss; but for a young man qualifying himself for a competitive examination, involving a considerable expenditure of time and money, to be

rejected for having one more or less defective tooth is a serious matter. Mr. Wyndham, in his speech on the "Army Estimates," stated that a good many would-be recruits were rejected on the ground of bad teeth, and these men are but examples of what is happening in all grades of society in this country. It is established as a fact, founded on widely-collected statistics, that 85 per cent. of British children under the age of twelve years require operative treatment. The question is, Can children with carious teeth grow into healthy adults? Can a race thrive whose children are so afflicted? When one has attained full growth it may not matter much whether the food is masticated by natural or artificial means, provided it is properly done; but with children it is a different matter, and the state of our children's teeth is a question of national importance. We understand that the question is to be brought up at the meeting of the British Medical Association at Portsmouth, where, in the Section of Public Health, direct attention will be drawn to the matter.—*British Medical Journal, March 11th, 1899.*

ACIDITY OF THE MOUTH DURING SLEEP.

The dentists tell us that an acid condition of the fluids of the mouth plays an important part in the etiology of dental caries; also that the causes of that affection are particularly active during the hours of sleep, when the saliva stagnates, so to speak, instead of being subjected to the agitation and renewal incident to the chewing and other movements that to some extent are almost continuous except during sleep. However carefully we may cleanse the teeth and rinse them with antiseptic solutions on going to bed, therefore, we are guarding but temporarily against decay; it gains on us while we are asleep. Possibly those who suffer with insomnia may snatch a crumb of comfort from his reflection, but we fear there is in it no consolation for the mouth-breathers, for the desiccation of the mouth which takes place in them during sleep, while enough to give rise to considerable discomfort on their waking, is quite insufficient to hamper pathogenic bacteria in their work of destruction.—*New York Medical Journal, March 18th, 1899.*

DENTAL CARIES AND PREGNANCY.

Biro (*Wien. med. Blätter*, December 1st, 1898) apparently shows beyond doubt that child-bearing has no agency whatever in promoting caries, save perhaps in cases of hyperemesis, in which the acidity, consequent upon persistent vomiting, appears to contribute somewhat to the decay of teeth. Biro examined parturient women,

comparing multiparæ with nulliparæ, and in every instance found that the degree of caries varied directly with the age, and not with the number of pregnancies.—*Medical Review of Reviews, Feb. 25th, 1899.*

CAUSES OF HIGH PALATE.

Groshcintz (*Arch. f. Larygol.*, VIII., No. 3) believes that the high, narrow palate (hypoistaphyly) is usually associated with a generally narrow configuration of the upper part of the face (leptoprosopy). Narrow nasal cavities (leptorrhiny) and narrow orbits are usually associated with high palate. High palate rests, as a rule, upon inborn racial peculiarity of skull formation, and is not influenced by causes operating after birth.—*Medical Review of Reviews, Feb. 25th, 1899.*

Proceedings of Dental Societies

VERMONT STATE DENTAL SOCIETY.

The Twenty-Third Annual Meeting of the Vermont State Dental Society is now a matter of history. The meeting was held in the parlors of the Van Ness House, Burlington, March 15th to 17th.

The meeting was called to order at 7.30 o'clock, Wednesday evening, by Dr. J. A. Robinson, President, of Morrisville. After the preliminary business was disposed of, Dr. S. D. Hodge, of Burlington, gave the Society and its guests a welcome in a short address. This was responded to in a pleasing manner by Dr. Pearson, of Barton. The president then gave his address, remarking that it was not because he had anything new to bring, but his only excuse was the fiat that all presidents must give an address. This was followed by a very ably written and read paper on "Conscientious Dentistry," by Dr. A. J. Sawyer, Manchester, N.H.

Dr. Blanchard, of Randolph, followed with one of his pleasing talks on "Artistic Crown Fillings." It was full of good ideas.

John Hood, of the firm of John Hood & Co., of Boston, then gave his method of refining gold, and the manufacturing of gold foils, etc., for dental uses, giving many directions for caring for and using gold, illustrated by many articles such as parchment-skin, ingots etc., etc. The meeting adjourned at 10 p.m. to meet next morning at 9.30 o'clock.

Dr. Hattie A. Moon, of Saxton's River, read a paper on "Affections of the Antrum." It was the first paper read before the Society by a lady, and was done in a very pleasing manner.

Dr. Northrop's paper on "Hints and Points from Experience in Everyday Practice of Crown and Bridge work," was well received.

"Painless Extirpation of Live Pulps," by Dr. Williams, of Rutland, was short and pointed.

At this point in the programme the Society adjourned to visit in a body the Bacteriological Station of Vermont, by invitation of Prof. Linsley, who is in charge. An abler pen than mine is needed to describe the station.

Dr. Smith's talk on "Articulation" was postponed to Friday morning. Thursday afternoon was devoted to clinics. During the afternoon Dr. A. J. Sawyer explained his method of anchorage contour filling in centrals and laterals.

Dr. Jackson, of Burlington, demonstrated his method of binding down centrals and laterals, using mechanical mallet.

Dr. Northrop opened up a laboratory in centre of parlor, under the gas fixtures, on a packing box, where he illustrated many of the hints he is full of, that he has gleaned from his experience in actual practice.

Thursday evening was devoted to the usual banquet, of which the Society is so well known. The menu was a good one, and the speech-making afterwards was of the usual high grade. Everything went off well, even to the speech of our worthy master, W. H. Towne, to say nothing of Dr. Milliken's efforts.

Friday evening saw the finishing up of a lot of routine business. The election of officers for the coming year, and a talk on "Articulating Artificial Teeth," by Dr. Smith, of Stowe, Vt. The hints given were not fully worked out so as to enable Dr. Smith to give them in detail, but will be later, and while not new to all, perhaps, are to many, and are valuable.

The following officers were elected: President, Dr. K. L. Cleaves, Montpelier; 1st Vice-President, Dr. Henry Turrill, Rutland; 2nd Vice-President, Dr. C. W. Steele, Barre; Recording Secretary, Dr. Thomas Mound, Rutland; Corresponding Secretary, Dr. Grace L. Bosworth, Rutland; Treasurer, Dr. W. H. Munsell, Wells River; State Prosecutor, Dr. G. W. Hoffman, White River Junction. Executive Committee: Dr. J. E. Taggart, Burlington; Dr. J. A. Pearson, Barton; Dr. J. H. Jackson, Burlington. Dr. H. W. Northrop, New York; Dr. A. J. Sawyer, Manchester, N.H., and Dr. F. B. Smith, Stowe, Vt., were made honorary members. Next meeting to be held at St. Johnsbury, Vt., the third Wednesday in March, 1900.

The following were added to the list of the Society's active

members: Dr. C. H. Kent, Barre, Vt.; Dr. G. F. Baker, Burlington, Vt.; Dr. P. G. Godfrey, Winooski, Vt.; Dr. W. J. Johnson, Burlington, Vt.; Dr. J. T. Wheelock, Waterbury, Vt.

NOTES.

Park Square Laboratory should have come under the head of exhibits, as nothing but exhibiting a few specimens of their work was done.

The next place of meeting is in St. Johnsbury, Vt. Time, the third Wednesday in March, 1900.

We had four or five from Montreal, and would have been pleased to have seen more.

De Trey's "Solila" gold and instruments did not show up, much to their detriment.

Five new active and three honorary members were added to the Society.

The exhibits were very good, and a lot of them.

DENTAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

The recent amendments to the Act of Incorporation comprise several important changes. No member of the faculty of the college, and no member of the Association engaged in trade, or commercial pursuits, is now eligible for election to the Board. Six members are to be elected by the Association, in addition to the representatives of the college and the affiliated university, making eight members of the Board in all. The six elected members are to serve for three years, two of their number retiring every year, who shall be eligible for re-election. No licentiate can have more than two students under indentures at one time.

The most important ethical amendment is that relating to advertising. It is certainly refreshing to find a legislature disposed to put a stop to the lying advertisers who for years have been deceiving the public, and if the following by-law, which has been passed by the Board in conformity with paragraph 9, Art. 4055, can be fully enforced, honest men in the profession will have much encouragement. An immediate effect was observable in the withdrawal from the press of the disgraceful advertisements. We

congratulate, too, some of the signers of the petition on their personal reformation :

BOARD OF EXAMINERS, DENTAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

Dear Confrère,—I am authorized by the Board of Examiners of the Dental Association of the Province of Quebec to send you a copy of a by-law, passed at a regular meeting held on the 13th instant, and which reads as follows :

"No dentist practising in the Province of Quebec shall be allowed :

"(*a*) To publish any advertisement in any newspaper, magazine or other publication, other than a professional card setting forth his name, address and profession only, which card shall not exceed in length twenty lines of a single column in said newspaper, magazine or publication ;

"(*b*) To advertise through any business firm, or to allow such firm to so advertise him ;

"(*c*) To advertise under any name other than his own or under a corporate name or any firm name, whether by signs, or notices in the newspapers, magazines, or in any other medium ;

"(*d*) To post up any placards setting forth his name, address or profession in stores, street cars or elsewhere, and to distribute pamphlets or circulars or other article containing any advertisement.

"(*e*) Any dentist who shall directly or indirectly violate the above by-law shall be liable, for the first offence, to be suspended for one month ; for the second offence, to be suspended for six months ; for third offence, to be suspended for one year. A fourth offence shall entail the loss of the offender's license, if the Board so decides."

This by-law has been passed in conformity with paragraph 9, Art. 4055, R. S. P. Q., as amended by bill No. 86 of the Legislative Assembly, and assented to by His Honour the Lieutenant-Governor of the Province of Quebec on the 10th of March instant. The dentists who are actually in contravention with the above by-law will therefore act accordingly without any further delay, in order to avoid the penalties above mentioned.

I am also authorized to draw your attention to the fact that this new by-law, which has been advocated for many years by the members of our Association, will be strictly enforced and the Board of Examiners relies upon your good will to help them in putting to an end the many abuses which have so long existed.

I remain, dear sir, yours truly,

EUDORE DUBEAU, L.D.S., D.D.S.,

Montreal, March 20th, 1899. *Secretary, D.A.P.Q.*

BOARD OF EXAMINERS DENTAL ASSOCIATION OF THE PROVINCE OF QUEBEC.

The Board of Examiners of the Dental Association of the Province of Quebec, met on the 5th of April for the examination of candidates for practice, matriculation, and primary branches. The following result was given :

Final examination of eighteen candidates, seven were successful —J. A. Butler, J. K. Cleary, F. Harwood, F. G. Henry, H. Lionais, W. G. McCabe, S. L. Wilkinson.

Primary examinations, anatomy, second year—J. B. Morrison, A. Lemieux, W. J. Rowell, J. C. St. Pierre, F. E. Skinner, L. Forest, W. Watson, A. Beauchamp.

First year—C. Depencier, E. H. Brown, L. R. Morin, W. D. Smith, B. A. Planche, O. J. Tansey, W. E. Bazin, J. R. Brown, J. N. Fournier, J. E. Dohan, H. L. Troutbeck, N. Desjardins, G. Benny, A. G. Harwood, C. C. McNeil, T. O'Connell, R. H. Somers, L. Tremblay, E. Stuart, C. C. Warren.

Physiology, second year—W. J. Rowell, W. Watson, J. B. Morrison, A. Lemieux, A. D. Angus, J. C. St. Pierre, F. E. Skinner, R. E. Elliott.

First year—B. A. Planche, J. E. Dohan, C. Depencier, L. R. Morin, E. Stuart, G. Briggs, W. E. Bazin, H. L. Troutbeck, E. H. Brown, J. N. Fournier, E. H. Somers, J. R. Brown.

Chemistry, second year—A. Lemieux, W. Rowell, J. B. Morrison, W. Watson, J. C. St. Pierre, R. E. Elliott, F. E. Skinner, A. D. Angus, L. Forest, A. Beauchamp, F. A. Harwood.

First year—C. Depencier, B. A. Planche, J. R. Brown, W. D. Smith, W. E. Bazin, R. H. Somers, E. H. Brown, L. R. Morin, J. N. Fournier, H. L. Troutbeck, J. E. Dohan, E. Stuart, G. Benny, G. Briggs, T. O'Connell.

Matriculation—There were twenty candidates, and the successful ones are: L. Trudeau, L. Tremblay, M. Fortier, H. R. Matthews, B. W. Brock. In sciences: J. Bremner, E. A. Vallee, G. Mills. Letters: H. Verret, W. H. Brown, D. W. Morrison.

The examiners were: Dr. E. B. Ibbotson, President; Dr. Jos. Nolin, Vice-President; Dr. Eudore Dubeau, Secretary; Dr. F. A. Stevenson, Treasurer; Dr. W. J. Kerr, Registrar; Dr. J. E. Gardner, Dr. G. E. Hyndman, Rev. H. A. Verreau (of the Jacques Cartier Normal School), and W. Dixon (of the High School). The next meeting for examinations will be held on the first Wednesday of October.

The following received the degree of D.D.S.: F. G. Henry, J. Alex. Butler, W. B. McCabe, J. Kanavagh Cleary and Fred. L. Williams.

[WE must congratulate the Board of Examiners of the Quebec Association on the energy and promptitude displayed in carrying into effect the new amendments to the Act. It is a good many years since such a business-like attitude has been assumed towards the mischief makers in the ranks of the licentiates. There is nothing to be gained by compromising with the organized band of selfish practitioners, who care for neither the profession nor the public if they can do anything to make a dollar. We have a good deal yet to do to bring the profession back to the dignity it occupied in public estimation ten years ago. We have confidence in the wisdom and courage of the present executive to accomplish this.—ED. D.D.S.]

NORTH-WEST TERRITORIES DENTAL ASSOCIATION.

The ninth annual meeting of the North-West Territories Dental Association was held in Regina on April 8th, there being a very good attendance. The North-West Territories Dental Law was the chief matter of business up before the Association. There being a number of inconsistencies in the old law, due largely to the fact that on several occasions the legislature had amended the law so as to give some special privilege to some favored applicant, it was resolved to petition the assembly to remove these inconsistencies. The principle of special legislation for the friends of legislators was strongly deprecated, and the petition asks for legislation that will permit of every applicant being treated on a basis of equality and dental qualification.

The officers' reports presented showed the Association to be in a flourishing condition financially. There had been several prosecutions during the year instituted by the Association against illegal practitioners, and in every instance the Association had been successful. It was resolved to institute a vigorous policy to ensure respect for the law.

The fact that the Yukon District is still under the jurisdiction of the North-West Dental Association, as far as the registration of dentists for that district and the enforcement of the dental law therein is concerned, was the cause of a decision to request the Yukon Council to make other provisions as speedily as possible, it being impossible for the Association in the territories to deal intelligently with the matter. The election of officers resulted in the following being chosen: President, Dr. W. D. Cowan, Regina; Vice-President, Dr. L. D. Keown, Moosomin; Sec.-Treas., Dr. P. F. Size, Moose Jaw; Registrar, Dr. C. R. Stovel, Prince Albert.

Selections

MANAGEMENT OF PULPLESS TEETH.*

By J. Taft, M.D., Cincinnati, Ohio.

Two thoughts induce us to present the following suggestions upon the subject indicated by the above title: (1) That pulpless teeth and roots are susceptible of being retained in the mouth and made serviceable and comfortable under a proper treatment, for a much longer period than is usually realized in the modes of treatment adopted; (2) faulty management is so very common that it would seem important that some effort ought to be made for a better mode of procedure in this particular of practice. It is entirely familiar to all dentists of much observation and discrimination that by far the larger share of disease and discomfort from affected teeth occurs in cases where the pulps have been destroyed (usually the result of decay). Disease and severe pain many a time occur before devitalization of the tooth-pulp, and without some appropriate treatment, the teeth are disintegrated and destroyed.

Physiologically, teeth pulps were intended to serve a valuable purpose during the life of the organs with which they are associated. There is an important function which they should serve during this period; but, unfortunately, from one cause or another, there are multitudes upon multitudes of pulpless teeth and roots. The common occasion of death of this tissue is by decay of the teeth; subjecting the pulp to exposure, irritation, inflammation, hypertrophy, suppuration and death, this is the common result of this process. Pulps are, however, frequently devitalized in other ways. Calcific deposit in the pulp chamber or in the pulp itself, or upon the apex of the root, cutting off its vascular and nerve supply, is not an infrequent occasion of pulpless teeth. In the low state of health when the nutrient function is impaired, its tissue sometimes becomes devitalized without any apparent cause. The conservation of exposed tooth-pulp, is a mode of practice that under favorable circumstances and with proper skill, is entirely practicable; in a very large percentage of exposed pulps, as they are found, it is the result of the decay. The indications presented in many cases are not such as to promise much good for conservative effort and hence it occurs many times that the destruction of the pulp is a necessity, if the best results are to be attained.

The best method of accomplishing this is not always employed.

* Presented to the Section on Stomatology, at the Forty-ninth Annual Meeting of American Medical Association, at Denver, Col., June 7-10, 1898.

Many methods have been used which we will not fully consider here. It is hardly proper to pass from these points, however, without two or three suggestions. One is that when an exposed tooth-pulp is to be devitalized and removed, its conditions should be as thoroughly understood as possible, and not only this but the peculiarities, whether normal or abnormal, should be understood. The practice of applying poisonous escharotics, as arsenious acid, for example, should always be avoided. With the appliances and facilities at the command of every dentist the use of such agents is wholly unnecessary and especially so when it is considered that most serious results follow their use in some instances in either the immediate or remote future, and especially to those highly susceptible to the poisonous influence of arsenious acid or similar agents. Specific results in some instances occur within twenty-four hours; these results, however, may be in other cases delayed for weeks or months before manifesting any action in a very marked manner. It is better that these agents be never used for this purpose and that some methods should be employed that would not leave a sting behind. Since cocain has been used as an anesthetic, there has been no occasion for using a more violent agent, as by proper application to, or injection of the agent into, the pulp it may be so anesthetized that its painless removal is an operation entirely practicable. Since the general introduction of anesthesia by cocain and the electric current (cataphoresis), it is a very simple operation to render an exposed pulp entirely oblivious to contact, when it can as easily be removed from its habitat as any other tissue of the body. This can be done by the use of the barbed broach or a sharp pulp-extractor. In the performance of this operation, the teeth should be perfectly protected by the rubber dam from the saliva or any agent that would convey infection. The instruments employed in the operation should be absolutely aseptic and kept as nearly so as possible during the operation.

The broaches, if they are used, should be moistened during the operation with some efficient antiseptic fluid. The instruments used in cleaning out the canal should be used with the same precaution. When the pulp chamber and canal have been treated in this manner it is the best possible condition for permanent enclosure, unless there is a persistent hemorrhage or weeping of the plasm from the foramen into the canal, and that in most cases is readily arrested by some appropriate styptic or coagulant, as Lugol's solution, tannin, persulphate of iron and numerous other things that will suggest themselves to the intelligent dentist. In by far the larger portion of cases this flow will cease spontaneously in a very brief time, but if not it may be assisted as above indicated. When the pulp has been brought to this condition and

thoroughly dried by a jet of warm air or by the use of a copper root-drier, it is in the best possible condition for permanent enclosure. In such cases nothing can be gained by the very common prolonged treatment preparatory to filling. The best time for closing such cases is immediately. If there is a doubt as to the entire arrest of the plasm flow through the root, it may have packed into the canal a small pledget of lint, moistened with some astringent, then fill the canal with Hill's stopping or some material that will be impervious. Twenty-four hours will be sufficient to determine whether the flow has been entirely arrested. Before removing the temporary stopping the rubber dam should again be used, when it will be determined whether there remains any discharge; if not, the cavity may be wiped with lint moistened with a solution of salicylic acid, when the canal and pulp chamber should at once be thoroughly filled with a material that will wholly exclude moisture in any form. Care should be exercised in filling the extreme part of the canal where there is no disease in the apical space. Any treatment after the canal and pulp chamber have been brought into the condition above described is liable to be fraught with disaster.

It is a very common practice with many to persist in what is denominated "root treatment" for days, weeks and sometimes months, in just such cases as this, a practice that ought to be discarded and condemned.

In filling roots of teeth, many methods are employed. The aim in every case should be to absolutely close the extreme end of the canal, and the canal itself, in such a manner as to prevent the entrance of septic matter or anything that would convey it. Roots of teeth have been filled with lead, tin-foil, gold-foil gold wire, gutta percha in solution, and Hill's stopping in solution and solid. By any of these methods in skilful hands, this work can be very perfectly and efficiently accomplished.

The late Dr. W. N. Morrison, of St. Louis, practised filling roots with gold wire made as nearly the size and shape of the canal to be filled, as could be estimated, shaping the wire so that it would pass to the end of the canal, then covered the wire with a solution of gutta percha or Hill's stopping, and forced it to its position in the canal, cutting it off in the pulp chamber. The same method was adopted when lead was used instead of gold, by the late Prof. Peabody, of Louisville, Ky. Shaping the lead so as to fit as closely into the canal as possible, covering the lead with a gutta percha solution, press or drive it to its place in the canal, and cut it off in the pulp chamber.

Dr. H. J. McKellops follows practically the same method, using, however, a cone of gutta percha or Hill's stopping, the size and shape of the canal, moistening with a gutta percha solution

and pressing it to its place. These methods or modifications are much used in filling roots of teeth.

Dr. C. R. Butler, of Cleveland, Ohio, usually fills roots of teeth with tin-foil, cutting into narrow strips, packing into the canal with an appropriate filling instrument, by this means absolutely sealing it. Gold-foil used in this way has no advantage over tin. The methods of root management as above indicated are the most simple and the most successful.

In the preparation of decayed teeth with open pulp chambers, the tissue has at the present a great number of phases. The forms more simple than those described above are those cases where the pulp from exposure has become diseased and devitalized as the result, and is simply sloughed away or remains as lifeless matter in the canal, with little or no discharge from the foramen at the end of the root, and no periosteal disturbance. In these cases the requirements are, first to wash out the cavity as thoroughly as possible with a syringe with a disinfectant fluid, then with an appropriate instrument remove all debris that is not washed away, then open and shape the canal so as to readily facilitate the work to be done. Disinfection and antisepsis are always required more or less for these cases. It is well in some cases to remove more of the dentine from the walls of the canal than would be required in those from which a living pulp had been removed. This is necessary, because the decomposing matter in the canal comes in contact in the mouth of the canals and vitiates their contents to a greater or less extent, according to the susceptibility of this material and the offensive condition of the contents of the pulp canal. The contents of the canals of the dentine in many cases remarkably resists the pernicious influence of the fetid matter of the pulp canal, but in other cases is greatly susceptible to its destructive influence. In the latter case it is important that the walls of the canal be cut away so as to remove this offensive material. In such a case a thorough antiseptic and disinfectant treatment should be employed. In many cases much more should be done in the way of cutting from the canal walls than is done by many. In this case sulphuric acid may be employed with very decided benefit. It readily enters the canal by dissolving its walls, is an antiseptic, and would arrest decomposition of the contents of the dentine canals, so far as it could be brought in contact with it. Care should be exercised in the use of sulphuric acid for this purpose, that it does not pass through the foramen at the end of the root, as it would there be an active irritant.

After the canal has been treated in the manner suggested, it is important to determine whether there is any discharge of any sort from the apical foramen into the canal; if so, that condition must be changed. This can in some instances be effectually done by

thoroughly filling the extreme end of the canal. This procedure is practicable in cases where the flow is not copious and consists in the main of the plasm of the blood. This arrest may in some cases be promptly accomplished by the use of a coagulant packed well into the canal and permitted to remain for a few days. This method of treatment is usually efficient where there is but little discharge, and this of a limpid and inoffensive character, and with a good constitution. In many cases, however, the discharge is so abundant that neither sealing nor the use of the coagulent will be immediately effective, but either or both together may be used, checking the flow in part at least until the disposition to discharge is relieved.

This discharge may come from a remnant of pulp in the extreme part of the canal or, in the absence of this, it may come from the irritated lining tissue just outside the apical foramen. This treatment in many cases, especially those of the more favorable kind, will be effective in arresting the discharge in twenty-four hours. Whenever this has been accomplished the canal may be promptly filled. From the pulp canals of many teeth, however, the discharge is acrid and proves a source of irritation, if promptly arrested or suddenly checked. In such cases, disinfectant or antiseptic treatment may be used in connection with partial stopping, thus rendering the discharge less offensive and less irritating to the living tissue beyond.

Pyrozone, 3 per cent. solution, may be used in such cases daily with decided benefit. After this treatment, tannin and oil of cassia may be used and placed lightly in the extreme part of the canal. Solution of salicylic acid may also be used with very decided benefit. If a remnant of the pulp is found in the canal it should always be removed before the treatment suggested. It is oftentimes the case that the sudden arrest of a discharge will prove an active irritant to the tooth at the apical space and more or less pronouncedly to the entire surrounding membrane of the root. That should in all cases where possible be avoided by the proper regulation of the treatment employed. When the discharge in such cases is arrested the canal and cavity should be properly and thoroughly filled.

I have thus far presented only the most favorable cases, in the management of pulpless teeth, emphasizing only the following points:

1. When the tooth-pulp is to be destroyed it is important to avoid any irritating or poisonous agents for this purpose. Anesthesia is in most cases required, and this is readily accomplished by injection of cocain, or by cataphoresis. In a good many cases neither of these are required, but it is insisted that all poisonous agents should be avoided.

2. The removal of debris and offensive matter from the tooth that is to be conserved should be most thorough. The utmost cleanliness and purity should be observed in every step of the work. The fluids of the mouth should be effectually excluded.

3. Excavation in the canal is made for two purposes: One to enlarge and make it more accessible in every part of the work. The other is rendered necessary where there is a decomposition taking place, especially in the contents of the dentine canals. In many instances all this offensive material may in this way be removed and thus the danger of further trouble lessened.

4. The importance of arrest of the discharge that may be taking place from the pulp canal—and let it be borne in mind that this usually does not involve a prolonged treatment—the results of which are disease and oftentimes loss of the tooth. Under favorable circumstances nature always makes rapid work in the reparation of diseased tissue. I have, however, purposely omitted the management of pulpless teeth that have involved the surrounding tissue, those in which abscesses have been formed, and in which there may be diseased gums of one variety or another. These conditions may form a basis of consideration at another time.—*Journal of the American Medical Association.*

Reviews

Diane of Ville Marie. A Romance of French Canada. By BLANCHE LUCILE MACDONELL. Toronto: William Briggs. 1898, pp. 251.

The science of criticism is too commonly in Canada a habit of abuse, especially if the work reviewed happens to be purely Canadian. There are very few productions of the pen of the most widely-approved writer which cannot be made a field for hypercriticism of the most partial character. The fact that a new literary venture is purely Canadian, is enough, in the opinion of a large number of Canadian critics, to greet it with silence or suspicion, or sneers. It is so difficult for our small population in this big Dominion to escape from the environment of local prejudice, that warm welcomes to our own literary efforts are very rare. Anyone who has had his heart and head in the business of journalism for any length of time, learns to feel the force of this fact, and the unhonored prophets who in art and literature have left the coldness of our Canadian criticism to find ready appreciation abroad, are many and monumental. These remarks are not specially inspired by any unkind neglect of the authoress of "Diane of Ville

Marie"; they apply very generally to all classes and conditions of our local magazine and book literature. Of late years there has been a notable awakening among our writers, and their pens have become busy in depicting the many pictures of life and character, past and present, which are everywhere before our eyes. The charming story by Miss Macdonell reveals her deep insight into the manners of the old régime. The publishers have put the Canadian public under great obligations for their enterprise in promoting the interests of our indigenous literature.

A Manual of Comparative Dental Anatomy for Dental Students. Prepared by request of the National Association of Dental Faculties, and adopted as a text-book for colleges, August 27, 1898. By ALTON H. THOMPSON, D.D.S., Topeka, Kansas, Professor of Dental Anatomy, Human and Comparative, in the Kansas City Dental College, Kansas City, Mo. Philadelphia: The S. S. White Manufacturing Co., 1899, pp. 176.

The literature of dentistry *per se* is every year becoming more distinct and scientific. There has been a lack in respect to comparative dental anatomy, which this little work of Thompson's now fitly fills. The comparison of the human teeth, with those of lower animals is an interesting study, now made compulsory in the curriculum of the colleges, and the author has made a reputation as a teacher in this specialty. A list of questions is added to each chapter as an aid in class quiz. The most of the specimens illustrated were furnished by Mr. C. H. Ward, of Ward's Natural History Establishment, Rochester, N.Y. The contents include chapters on general zoology and comparative anatomy, the teeth in general—the teeth of invertebrates, vertebrates, fishes, reptiles, mammals, the higher apes, and man. We anticipate a large sale in Canada for this work.

The Dental Brief comes to us in a new dress, and with a new editor. The retiring editor, Dr. Welch, has earned a rest; his successor, Dr. Wilbur F. Litch, has already earned his spurs. The *Brief* is published by L. D. Caulk, monthly; $1.00 a year.

Dominion Dental Journal

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DEFECTS IN CHAIRS.

The perfect dental chair has yet to be made. Some of our manufacturers have put a great deal of ingenuity into a large variety of complications, so that you can turn, tip, raise, lower, extend the back, raise and adjust the head rest, etc. Someone now wants to go seriously to work, in conjunction with practical dentists, to simplify the whole business. There are mechanical wrinkles about some of our chairs which would serve to amuse children. There are faults so apparent that no one wishing to have an old-fashioned *siesta*, would ever think of selecting a modern dental chair if there was any ordinary arm chair available. The great defects are chiefly in the nonsensical complications of the head-rest, and the uncomfortable space between the bottom of the head-rest and the sliding back.

We have had some personal experience during the past year which has brought these and other defects very prominently to notice. The back frame is pivoted to the chair-body so that it can be let down and locked with a lever. The vertical adjustment is controlled by a handle which locks it in any position while raising or lowering. Our experience has been that both of these ideas are defective, simply because their success depends upon mechanism very apt to get out of order, and requiring too much attention to adjust. The back frame was constantly giving way when patients leaned against it, and in a number of anesthetic cases serious accidents nearly happened. Finally, after a year's use, the lever broke at the screw.

The ball and socket principle of the head-rest is a pretty toy, but it is utterly unreliable in anæsthetic cases, and generally a nuisance. Those of us who spend so much of our lifetime at the chair ought to be the best judges of what we need. What we need is much less complicated machinery and more solidity and comfort for patient as well as operator. Our leading manufacturers take hints like these in a proper spirit, even if a complainant loses his temper; but there are others who take such complaints as a personal insult, and who will not admit a defect unless they get their own necks nigh broken.

EDITORIAL NOTES.

THERE is nothing easier, or meaner, than the flippant criticism of men who rarely or never contribute to our literature, yet who assume to turn over the pages of a monthly periodical, and show how it can be improved. Any ordinary donkey can do that much. Indeed it seems to be one of the supreme gifts of donkeys. To the average reader, especially if he has never had any experience in the diverse duties of a journalist, it seems an easy task to gather together appropriate material month after month. It never occurs to these critics, that unless an editor depends almost exclusively upon his scissors and makes his journal a rehash of his rivals, he has to beg, and plead, and worry for original contributions; that he has to, metaphorically, get down on his knees to the provincial society secretaries for prompt reports, or for any reports; and that the labor of correspondence alone in these matters is a very serious inroad upon the leisure which is due to his private and professional business. We have had model secretaries; but some of these gentlemen, so solicitous for office, forget that it is their duty to give the JOURNAL some sort of an official report. If we exposed the facts in connection with these difficulties, our critics would saddle upon the shoulders of the secretaries the blame which an editor is apt to receive.

An editor has a right to expect more support from the officials. He has a right to expect some more local patriotism. If he discovers a systematic official attempt to keep information from the licentiates, he has a right to expose it. He has a right to expect more contributions from many whose education qualifies them to assist. If the only dental journal in Canada has no right to expect such substantial financial backing from the representative associations, as is given to the *Journal of the British Dental Association*, and by local and state societies in the United States to the leading journals which publish their proceedings, it makes no

complaint. With the keen competition of thirty or more rivals, nearly all of them published as collateral boosts to trade interests the DOMINION DENTAL JOURNAL has secured as much original matter as any, and eighty per cent. more than three-fourths of them. It cannot pay for highly scientific articles. It has not the space generally to copy them. This journal has a special use in Canada, which all its rivals combined cannot occupy. The publisher and editors feel that the critics are not only ungenerous, but in many respects positively stupid. They know where the trouble lies, and so would the critics were they less thoughtless. If we had the full sympathy of those who are really able to help to improve this journal, if officials generally would realize that the licentiates who appointed them expect all possible provincial information from time to time through these pages there would be less scope for criticism. We must be satisfied in Canada with a journal of modest pretensions.

WE can easily imagine some of our critics taking offence, because we may occasionally publish such extracts as the following: The very large majority of our Canadian dentists desire the social and professional respect of the public, and are naturally anxious that the stigmas of quack advertising should disappear; but, in all frankness and sincerity, we can count upon the fingers of one hand the names of those who have displayed any zeal, not to say anything more than ordinary sympathy, with the practical suggestions made for remedy. "We are a busy craft who do not care specially to be bothered about such matters." "The other fellow will probably do the pugnacious work needed." "If he fails, we will get none of the disappointment of failure. If he succeeds we will get the benefit." That is about the style of argument.

Occasionally, however, we get encouragement from a correspondent. The following speaks for itself: "I am getting old in practice. To-day I operated for children of a lady whose grandmother I attended to as a child. And I am only now beginning to feel under the greatest obligations to the lessons you inculcated on ethics in the predecessor of the DOMINION JOURNAL. I can trace to these lessons my avoidance of temptations to sensational advertising, and there is not a day that I do not feel conscious that I have been confirmed in my methods of conducting my practice by the recollection of views you urged upon young men as a young man yourself. It must bring many difficulties in one's way to conduct a journal to satisfy all sorts of dentists, but you have never erred in the least from the principles laid down in the *Canada Journal of Dental Science* thirty years ago. That is no mean record."

Mr. CHARLES H. WARD, Osteologist, of 37 Rowley Street, Rochester, N.Y., whose interesting article and illustrations on the "Four Degrees of Wear of Broca," we published in the January issue of last year, is, perhaps, unexcelled by any other man in America in the making of osteological preparations and anatomical models. He makes a specialty of collections illustrating human and comparative odontology, besides importing anatomical models of every description.

"BE true to thy friends, never speak of his faults to another to show thy own discrimination, but open them all to him with candor and true gentleness. Forgive all his errors and sins, be they ever so many; but do not excuse the slightest deviation from rectitude. Never forbear to dissent from a false opinion or a wrong practice from mistaken motives of kindness."

WHAT A SUGGESTIVE ARRAY.—Dental parlors, hair cutting parlors, pool parlors, gambling parlors, whiskey parlors—"Birds of a feather."

To the Editor of DOMINION DENTAL JOURNAL:

DEAR SIR,—In accordance with a rule of the National Association of Dental Faculties, I hereby notify you that D. E. Maloney, J. J. Sullivan and J. F. Martin, have been suspended from the College of Dental Surgery of the University of Michigan.

N. S. HOFF,
Secretary Dental Faculty.

Ann Arbor, March 17th, 1899.