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Dominion Dental Journal

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Original Communications

A LITTER OF SUPERNUMERARY TEETH.

By G. LENOX CURTIS, M.D.

A patient aged 21 years, with a history of a full set of deciduous teeth and no extraction of the permanent set, presented herself, complaining of pain and some swelling in the jaw near the symphysis. Examination revealed the absence of the inferior left lateral incisor, the left central being slightly loose and tender on pressure. A slight space intervened between this and the cuspid, the cusp of which was tilted forward and the apex well back, encroaching upon the bicuspid. Suspecting an unerrupted lateral, a shell probe was passed through the gum and periosteum until a glistening subject resembling enamel was reached. The patient was so highly sensitive and hysterical that further examination was deferred until the time of operation. An incision in the gum was made directly over the tumor at the apex of the root, the periosteum was opened and laid aside so as to expose the contents. Here were found seven teeth nestling together in a cavity about the size of a denuded peanut. The roots were like the spokes of a wheel radiating outwards, some almost penetrating the gingival margin of the gum projecting above, while others were close to the lower border of the jaw. The cavity in which they were confined was perfectly smooth and without a soc. The roots of the teeth were pointed like tacks and were from one-sixteenth to a quarter of an inch in length. The crowns uniformly being an

eighth. They closely resembled small inferior incisors of the temporary set. The crowns of only two showing clear enamel, the others being clump shape with a growth of yellowish color much resembling exostosis. On opening the teeth I found they contained a pulp same as a normal tooth. This beats my record by four at a single birth. Around one of the largest teeth was a sore highly inflamed filled with fluid, and from this, no doubt, the trouble arose.

7 West 58th St., New York.

RETIRING PRESIDENT'S ADDRESS.*

By IRA BOWER, L.D.S.

GENTLEMEN,—I am much pleased, I assure you, to see so many of the dentists of Eastern Ontario present at this our eighteenth annual meeting, and taking an active interest in the Association; but I regret to see so many pay little attention to that which should ever be their watchword, "The Advancement of the Dental Profession" and the welfare of the Association, for, sirs, the members of the profession to-day, and particularly the recent graduates, owe much to the Eastern Ontario Dental Association for the work it has done in the past, and of which they now reap the benefit. The College, gentlemen, is something they can look back to, or point out with pride to their friends, and say, that is our *alma mater*, whereas we the older graduates have nothing except the ramshackel on Louisa, or perhaps Richmond Street that the old Board provided. I mention this because I believe that the profession are indebted to this Association for that beautiful building, and I think that we should ever impress it upon the minds of our students what we have done in the past, and how they benefit by it, and if we did so I believe they would assist us by their presence, and would also contribute material that would no doubt be of interest and benefit to each of us, and make our annual meetings more attractive. I do not intend taking up your time by talking about the advancement the profession has made during the last year, but you all know that we are steadily getting to the top, that our profession is not treated as a trade by the intelligent, and that we are now numbered with the first and highest in the land; so let us all try to uphold and treat it as such.

There are a number of things I would like this learned body to discuss at this meeting, viz.:

- I. The manner in which American matriculants are admitted.

* Read before the Eastern Ontario Dental Association, July 6th, 1897.

2. The question of jury duty.
3. The granting of D.D.S. to those members that did not have the opportunity of writing for it.
4. Dominion license.
5. American students working in Canadian offices.

The programme this year, you will notice, varies a little from the usual, but I think you will agree with me in saying, that it is not lacking in attractiveness; and I must say that our secretary is deserving of much praise for the indefatigable manner in which he has worked on this programme, although suffering from illness. And the food you have for thought is different from what you have ever had before presented you at this Association.

A WORD FROM AN OLD FRIEND.

By CHARLES A. MARTIN, L.D.S., Ottawa, Ont.

I regret exceedingly that I am unable to be present on this occasion, the eighteenth anniversary of our Association. The pleasant recollections of former meetings, and the particularly hospitable and entertaining receptions always given by our Cornwall brethren, are inducements hard to resist. But in my case the increasing care, and the responsibility of a large family, requires, for the moment, my constant attention and presence at home.

If the attendance at the present meeting shows increase in numbers, if the large addition of licentiates graduated since the inauguration of our Association contribute a reasonable proportion of their number by assisting in active participation, then I hope to see a return of many of the eighteen-year-old members, to add impulse and enthusiasm, and keep in existence an Association which has done so much acknowledged good, and has proven to be a power in our legislature.

I regret that there is a persistent tendency in many dentists to be isolated, to keep aloof from gatherings of professional brethren. Whether they are justified in doing so is best known to themselves, whether they derive greater pecuniary benefit is questionable. Do they generally acquire greater proficiency? By their conduct do they obtain greater public confidence? Does society show them preference? Or, is it because some are prosperous that they see no need of Associations? Or, is it because they do not wish to conform to any code of ethics? Being free from any association rules, do they resort to underhand methods and tricks and fraudulent acts, to temporarily increase their revenue to the detriment of

* Read before the Eastern Ontario Dental Association.

their fellow-practitioners? Do they generally succeed? If individually successful, is it permanent, and what effect has it and will it have on the standard of the profession? Does the modern dental practitioner command as much respect from his patients as the dentist of forty years ago? Let the old practitioner answer. A noticeable difference is in the attitude of the public. The general public enter a dental office now with no more deference than when entering a shoe shop! They price the *goods* and comment on the different makers of material; no doubt the youthful, isolated dentist has imparted all the information voluntarily, and has educated the *customer* how to discriminate between the goods he offers and those of the other fellow across the way. The people have become posted and will not be bamboozled. Of course this applies only to the shopping class, still the custom is noticeably spreading among the more intelligent.

The professional standing is being lowered by the individual acts of unscrupulous dentists, who desire to monopolize the practice of the community in which they exist. It may be, perhaps, that some are induced to isolate themselves from associations, so as not to be in company with some *plebian* dentist! Whatever is the cause, the results are regrettable. The one great factor for elevating the standing of the profession, as a whole, is sadly neglected. The united efforts of the best minds would no doubt render nefarious the conduct of the reckless dentist, and compel *all* to join the faithful fold (*millennium*). Certainly individual action on the part of honorable dentists retards general disaster, but united action would be more effective. Well, what are you going to do about it? I anxiously await your discussion on the subject.

May you have a large and profitable meeting, and may the results prove a stimulus to greater activity among a greater number.

ELEMENTS OF DENTISTRY.*

By V. H. LYON, L.D.S., Ottawa, Ont.

In bringing before you the contents of this paper I have a desire more to consider the elements of dentistry in its broadest sense rather than in the narrow, and, I regret to say, narrowing sense of the dentists' duties. While noting the fact that so many of the profession are looking upon dentistry merely as a means to obtain a livelihood, I am glad, at the same time, to note also in others a growing spirit of true professionalism, and that for so long this spirit has enabled the profession to maintain a respectable status

*Read before the Eastern Ontario Dental Association, July 6th, 1897.

in the estimation of the people, but, unfortunately, as our numbers are increased we are aware of a lack of appreciation of dental skill. I wish our graduates were more grounded as to the true extent of their field of usefulness as professed benefactors of the human race.

I need not dwell upon the necessity for proper dentistry at the present time both as reference to this and future generations, for never did humanity call as loudly for the assistance of any profession as it does to ours to-day, it may be unconsciously and without appreciation of the true value of skillful dentistry either practically or in advice; but no dentist (if he honestly has the merit to be called such) is ignorant of the possibilities or probabilities of proper, intelligent dental skill as applied to the present generation.

I know the great and deplorable tendency of the people to-day is to gain, apparently, the *most* for the *least*, and so far has this tendency developed in some as to almost demand *all* for *nothing*; but even many in this latter, poor, misguided class, will gladly, willingly acknowledge in regard to the professions that the man who stands foremost, and whose fees are usually the highest, is the best and cheapest in the end, and if at all possible and within their means, will invariably consult him. What inference, then, can we, must we draw from this practical demonstration of acknowledgment of the superior value of the educated practitioner coming as it does from the very source and root of the general excuse for unprofessionalism? And I use this word this time in a somewhat restricted sense, for I only refer to ignorance in matters pertaining to dentistry, and I tell you it is entirely due to this lack of education in professional and moral principles that we hear so much of quackery and charlatanism. The man of worth can, and always will, overcome his unscrupulous and uneducated rival.

I am more inclined to favor a system that will advance educationalism among the members of the profession rather than one of denunciation among the fruits of their ignorance. I do not wish to pose as an exceptionally well-informed member of the dental profession, it need not necessarily be considered as an essential of one who can see defects in his profession; even the most devoted adherent of quackery can see and must acknowledge the advantage superior education would be to himself; how much more, then, would it be to professional dentistry?

Education is a power that may or may not be wielded for a beneficial purpose, and it is only as we thoroughly understand every phase of any certain condition that we are enabled to make the most of it, and again, it is only as we fully and intelligently recognize the necessity for it that we are going to place dentistry where it properly belongs,—the acknowledged sister science, and not a specialty, of medicine.

A thorough understanding of the principles of dentistry involves

as complete a knowledge of medicine. I would not be misunderstood in making this reference. I have no desire to see our grand profession usurped by any other, we have a special field of usefulness, but what I wish to see is a thorough medical course instituted in connection with dentistry, and the graduate in dentistry in consequence necessarily acquiring certain knowledge the professional dentist ought to possess.

There is, I am glad to say, an inherent quality in all men which hungers for knowledge; in some this desire becomes so great that the individual is prompted to search for it and glory in it, both for personal and general benefit; this spirit is what characterizes true professionalism. The man who is satisfied to complete his store of knowledge on graduation must be content to remain on the bottom rung of the ladder of his profession, and when his superiors in matters concerning his profession gradually leave him far behind his resort for recognition and it may be a livelihood must be of a nature degrading to his profession as well as his manhood.

I regret to say that a great number of our dentists are seemingly totally averse to acquiring more knowledge than they consider is necessary to "gull" the public, for I must admit this class of men cannot do otherwise than look upon their services wholly with reference to fees and with a total disregard of doing the best under the circumstances, and with such conditions governing their services the public must suffer and reflect upon dental worth.

It has been my aim to point out the positive necessity for professional dentistry as well as denounce deception. The dentist who does not make himself thoroughly conversant, as far as lies in his power, with all matters pertaining to dentistry, is a disgrace to his profession, and the public do not want his services, although they may be persuaded to accept them by various methods of deceit.

I am glad for our high class of dental literature, yet I regret so many who could give the profession valuable ideas are so reticent. The younger members look to the older ones for the essence of their experience. I do not believe it is denied them because of a selfish desire to keep it to themselves, but from a mistaken idea that they could not place their ideas on paper. I hope this timidity will be lost in the interests of humanity and the profession.

There is material and thought in the Canadian branch of the profession of dentistry to support a journal of dentistry equal to any in the world. I am persuaded that it is practise which enables us to place our thoughts in readable form, so none of us, I think, who are novices in this department would object to a reconstruction at the hands of older and more experienced writers, when the object to be attained is the enlightenment of the profession, and now while dwelling upon this most important feature of educa-

tion I would like to express a sincere desire that a paper or journal be instituted in connection with the College of Dentistry; this would stimulate the writing of articles by the embryo profession and overcome the vast difficulty of timidity after graduation.

While referring to the School of Dentistry I should like also to express a hope that it shall soon be equipped with a gymnasium, a library and a reading-room.

My whole desire in connection with our profession is to raise it to a higher standard morally, physically and intellectually. I do not look upon any branch of education as complete without physical training, and as regards library and reading-room facilities, who can estimate the benefit to the profession? I cannot too strongly condemn for its narrowness the complete system of study in our college. What we want is broad minded thoughtful men. No institution is fulfilling its duty which does not make the best of its graduates, and I regret that our School of Dentistry, which is to many the final school in their course of education, falls so far short of doing this. True, it drills the principles of dentistry thoroughly into the students; but is this all that is required? Should not our students be impressed with the fact that they as professional men are supposed to know something outside their professional duties? I regret the ignorance and narrow-mindedness among many of the members of the dental profession, but the brain is there, I believe that. I believe also no profession embodies better men than our own; but the intellect is deplorably neglected and cramped in its stage of development. What a great benefit to the rising young men who are entering our profession to have access during their college course to a carefully selected, well-equipped, dental and general library!

We cannot, I say, estimate its possible value to humanity and the profession of dentistry, and the revenue of the college is more than amply sufficient for this purpose.

The cry of the profession is seemingly to decrease its members. The cry is timely, but were these numbers men of broader intelligence and principle, the cry would be for more of them. Of this class the profession wants and needs more, and we ought to do all we can to make such a condition possible, otherwise we cannot blame the numbers for entering our profession: they have as much right in it as we have. We can only look to ourselves for a remedy. If we can cultivate true, deep professional thought in the minds of the profession, students, and graduates as well, we need have no fear of an overcrowded profession, nor an unappreciative clientele. We cannot expect merit to be appreciated where it is not, we cannot expect the dental profession to be looked upon as a learned profession till it is such. You may consider my judgment somewhat harsh; it is not so. I do not consider the man a clever

lawyer, physician, or dentist who knows much about his professional duties and nothing beyond. The educated man is gauged by his generality of knowledge, the learned professions are conspicuous in the breadth of knowledge of their members. If we can place greater facilities for the acquirement of increased education among the members of the profession, it is our duty to do so, and just as we should like to see, and as we believe our profession ought rightly be considered, let us place our students, the profession to be, in surroundings mostly conducive to such a condition; otherwise with no effort towards such improvement we can expect none.

Outside the educational element, I regret to note the utter incapability of many of our profession to perform either to the credit of themselves or professionalism, the duties necessarily devolving upon them, from a moral standpoint. I will only make a passing reference to this; not that I wish to minimize its importance, but because its truth is already fully impressed upon us. It needs little consideration to convince us what lowers the individual dentist in the estimation of the people redounds to the detriment of the profession as a whole, it cannot help but do so. If we wish our profession to rise in respect, we must ourselves be worthy of respect, and by no means the least element to be considered toward that end is one of prompt capability at all times to perform our professional duties, and the dentist is unworthy of professional standing who is voluntarily responsible for such a condition as debars him from doing so.

And now lastly, and with due appreciation of its importance, I refer to our social attitude toward our patients and the world. Covering a multitude of defects a thoroughly sociable disposition has won for many a professional man a lucrative practice, a kind, sympathetic nature prompting the operator in the manipulation of his dental and surgical instruments is only second in importance to the highest skill. The gruff, unfeeling dentist, regardless of greater experience, or supposed superior knowledge must sooner or later become humanized or retire. Our sphere will be broadened and the profession elevated when we get from our ranks this element of barbarism. The thorough performance of our duties invariably necessitates suffering; the operator who unnaturally increases it without reason, is not only unworthy the confidence of his patients alone, but forfeits all right to social relations with his fellow-beings. The professional cloak has long permitted liberties which among the laity would righteously be condemned; the unlicensed infliction of pain is contemptible, and when coming from a presumably educated, so-called benefactor of the human race, is little short of criminal.

Beyond our attitude toward our patients and maintaining with

them the highest social relations, there is required of us friendly, equal companionship with the world. As a profession we are endowed with knowledge and skill of inestimable value to humanity; but if we incorporate with it a degree of barbarity, we cramp its appreciation and destroy its fullest application as a boon and a benefactor to the human race. The remedy is such that it only calls from those who are guilty the practising of the common principles of humanity, and if they are incapable of such their sphere is not as exponents and practitioners of our worthy profession.

ECONOMY IN DENTAL PRACTICE.*

By R. E. SPARKS, J. D. S., Kingston, Ont.

The great social question of the day—the question which agitates the minds of all social reformers, and stares in the face all statesmen is, how shall the masses be fed? We cannot close our eyes to the fact that this problem must soon be solved. The young men who rush into the profession thinking that, as far as they are concerned, they have solved it, will find some fine day that the question which had appeared as a molehill has become a mountain, that the question will include themselves. The rapid development which has taken place upon this continent in the last century has made a great demand for labor. That demand has made wages of all kinds high. But that development has about reached its high-water mark. Take, for instance, the tremendous amount of labor, manufacturing and business created by the building, equipping and operating of the net-work of railways and telegraph lines over the continent; to this add the thousands of villages and towns, and many of even large cities, which have sprung up during the time mentioned. To this again add the clearing up and bringing under cultivation of, and providing buildings for, the farms which provide food for the millions who have been attracted to this continent from the overflow of the old world. War with all its extravagance and devastation is, we hope, through the influence of Christian enlightenment, largely a thing of the past. All these influences tend to lower the demand for men and increase the supply. This decrease of demand and increase of supply is bound to lower the scale of wages. This lowering of wages will apply to all classes, from the navy who digs a ditch to the judge who sits on the bench. Labor organizations may fix a schedule of wages, professional societies may attempt to regulate the fees of their

*Read before Eastern Ontario Dental Association July 7th, 1897.

members, but remuneration for services will be governed not by the value of the services rendered so much as by the demand and supply of the servants; already we are feeling this in the dental profession. We see and hear discussed ways and means of excluding the hordes. This cannot be done. The lowering of remuneration for manual labor drives many into mercantile and professional pursuits. You may raise the standard of matriculation, lengthen the term of tuition, increase the college fees and stiffen the final examinations. All these conditions will be met and fees will come down as in all the trades and professions. This is not a plea for cheap dentistry, nor any apology for the lowering of fees before there be a necessity for it; neither is it an insinuation that we are too well paid for our services. It is only a prospect of what I consider an inevitable condition in the not very far future. How to meet it is a question of no small importance. The only way it can be met in my opinion is by economy. There is no doubt but that we on this continent are most extravagant livers, indulging in luxuries which the same class of Europeans would not dream of.

The one redeeming feature of the lowering of wages in competition is, it lowers the cost of production; so that while the purchasing power of the masses is reduced, the purchasing power of a dollar is increased. This is not so noticeable in the dental office as in the home. Still, where our material and instruments are expensive, the lessening of the cost becomes a factor in profits of a year's practice.

Combines may be formed, and every effort made to keep up prices of goods. They must come down. Already they are on the move. Price lists are being circulated with the announcement: "Reduced from—to—" This reduction ranges from $6\frac{1}{4}$ per cent. as in the case of gold foils, to $33\frac{1}{3}$ per cent. as in the case of some makes of teeth, to 50 per cent. as in the case of some cements and alloys. Some of the manufacturers would fain have us believe that it is their magnanimity being manifested, that it has merely been a question of how soon and how much. As we have watched them corner the platinum market and advance the price of teeth, form combines to keep up prices of goods, it has appeared to us that it was rather a question of how long and how little. But leaving the necessity of economy out of the question it may be profitable to consider the subject as a matter of policy. While few of us expect to amass wealth from the practice of our profession, we all hope to lay up a little for a rainy day, or for that time which must come to us all, when the eye grows dim and the hand begins to lose its cunning, when we begin to see our patients leave us for our younger and more active confreres.

In no case more than in the dental office and laboratory is realized the truisms, "wilful waste brings woful want," and "economy

is the sure road to wealth." It is not the amount a man earns as much as the amount he saves that governs his financial standing. Granted that economy is desirable in dental practice at all times, the question arises, how can we economize? First, in the selection of an office. It is desirable to have an office in a respectable part of the town or city. But there are in every city locations where office rents are nearly double the rent for the same accommodation in any other part, which, for dental purposes, may be just as desirable. Then the selection of an office governs the saving or waste of many things that are valuable to a dentist. The rooms should be compact so they may be more easily heated; for the fuel bill in a Canadian winter is no small item. Besides compactness and convenience of arrangement saves time and strength, both of which are important items in the dentist's stock-in-trade. The office should be well lighted. The fine work in an obscure location makes no ordinary strain upon the eyesight under the most favorable circumstances, but to operate in a poorly lighted office is an imposition which no ordinary eyes will tolerate for many years. The best light can generally be secured in upstairs rooms. The office should be away from the residence to avoid having to work at unseasonable hours.

We should practice economy of strength. The dental profession is considered to be one of the most unhealthful of occupations. Close confinement, close application, breathing the breath of patients, and in many cases of those diseased in lungs or schneiderian membrane. In many cases, long hours operating during the day time and doing laboratory work or attending to books and correspondence at night; all this tends to bring on indigestion, constipation, hæmorrhoids, headache and neuralgia from over-worked eyes and brain. The laboratory should be close to the operating room to save unnecessary steps. In no case should the laboratory be on a different flat from the operating room. As the basement kitchen is an abomination to a residence, so is a dental laboratory above or below an operating room.

The arrangement of a dental office and the care of a dentist's health would make fruitful subjects for lengthy papers. Therefore we cannot more than mention them here; the object of this paper being more directed to the little wastes which may take place in a dental practice. Time may be saved by carrying the work along so as not to have to wait for anything; for instance, if two impressions have to be taken for the same individual, take one and run it. The cast will be hardening while the second impression is being taken and run. The second will harden while the first is being taken from the impression, and an articulating plate fitted. When the articulation is taken run it and it will harden while the teeth are being selected.

Having ground and articulated the teeth, wax and invest one set. By the time the second set is waxed and invested the first will be ready to wash out and pack ; when this is done the second will be ready and may be washed out and packed while the first is heating preparatory to being closed ; while they are vulcanizing other work may be gone on with.

Much material may be wasted. It is an easy matter to mix twice as much plaster as is needed for an impression or investment. A case may be waxed much thicker and covering more space than is required for the plate, making a waste of rubber and time in finishing up. Much gold may be wasted in finishing gold plates, crowns or bridge-work. Often much more solder is used than is necessary for the strength or finish of the piece. In finishing gold work, if dry corundum or carborundum stones are used while grinding down the solder and the piece held over a paper or other receptacle, or if wet stones are preferred, or bowl containing water be used to wet the stone and wash off the piece occasionally, one will be surprised at the accumulation of grindings. The fine sandpaper or emery cloth used for rubbing down gold work and the strips and disks used in finishing gold fillings should be saved and burned and the ashes preserved. Sheet wax may be easily and economically made. Quite a saving of gas may be made by watching carefully the heaters and waxing burners. It is quite possible to make the gas bill what it need be. Great waste may be made in the careless mixing of cement and amalgam. One not infrequently sees more cement remaining upon the mixing slab, or more amalgam upon the bracket, after the operation than was used in the fillings themselves. All amalgam scrap should be saved, as it is easily refined and recut. Sweepings of the operating room and laboratory could profitably be kept, as they are readily bought by the refiners. I have heard of old carpets off operating rooms being sold for more than enough to purchase new ones. I have never been able to negotiate an exchange so favorably. Possibly because I have my carpet beaten twice a year ; but I have often intended having it rolled up and opened out upside down upon sheets and so beaten, to preserve the gold finished off fillings ; I feel that it would be a paying precaution. Rubber dam which has become too full of holes to make it safe to use, may be made as good as ever by patching the holes with a little of itself rubber cement. Towels used for protecting the patient's clothing are worn out more by laundrying than by use. They may be used much longer without being laundered if, instead of wiping our instruments upon them while operating, we wipe them upon a mouth napkin, which answers every purpose and which costs relatively nothing. In the use of nerve broaches we may be extravagant. We may buy them at \$3 or less per gross, or we may pay

\$7 or \$8 for the same number. With care the one grade will answer about as well as the other. But whatever grade we use we may destroy many more than are necessary. In ordinary cases one broach will remove several nerves before the barks are stripped off, if it be only used for the removal of the nerves. As soon as it has done its work it should be cleansed and laid away for another time, and others which have lost their usefulness as extirpators may be used for washing out the canals, and when they have become so smooth as to refuse to hold a twist of cotton, they may have their points snipped off and be further used for nerve canal pluggers.

That pet ligature, floss silk, may be replaced by gilling twine, of which we may buy as much for 50c. as of the former for \$5. When using a ligature it is usually required upon three or more teeth. We are directed to prepare one for each and tie a knot to go on palatal or lingual side of the tooth to prevent the rubber from slipping off. Prepare one ligature; knot it if you wish, tie it on one tooth, cut off the ends close to the tooth, tie the ends together and proceed with as many teeth as it is necessary to ligate. It is profitable to purchase time-saving instruments and devices, but let us not buy everything that is offered for sale or we will find our laboratory and closet shelves loaded with rubbish only to turn up at house cleaning time. Thus by a little care and attention all the way along the line, and we have only taken time to mention a few representative points, we may make the expenses of the dental practice about one-half what it may be by carelessness and extravagance.

Correspondence.

THE MILD WAY.

To the Editor of DOMINION DENTAL JOURNAL:

SIR,—Are you not too severe upon the men in our ranks whom you stigmatize as quacks and quack-imitators? Is it not more in the spirit of Christianity to appeal touchingly and lovingly to these mistaken brethren, and try the influence of sympathising words of advice and lovingly counsel instead of severer words and measures? We have all got our faults, and all merit condemnation, and if we all received the punishment we deserve, few would escape. Now, it is best to enquire why these men do the things they should not do, and leave undone those things they should do, and approach them in a gentle and admonitory spirit, seeking their good, and urging them to depart from their evil ways. I am

not troubled with this class in my district, but if I were, I would try this way.

Yours truly,

J.—

[And you would not succeed: and you would not squeal until you found that the advertising liars were ruining your practice: then you would forget your own advice. Try your own propositions upon criminals. Appeal "touchingly and lovingly" to the next pickpocket you meet. Try "sympathizing words of advice and lovingly counsel" when you even want to collect your account from a dead-beat. Approach the next burglar you meet "in a gentle and admonitory spirit seeking his good, and urging him to depart from his evil ways." If you do not find that you'll have to fall back upon the terrors of law and jails, we will immortalize you in our pages as a new prophet. You can do the cooing and the wooing. As for us we will still pin faith to penalties, either ethical or legal. You admit that your convictions have not been tested. We have had thirty years' official experience. The quacks and quack-imitators of thirty years ago were not a circumstance for deliberate lying and imposture to their kin of to-day. In spite of generous efforts for reformation, the quack and quack-imitator will follow their instincts, as surely as the snake or the skunk. Penal laws against thieves are not meant for honest men, neither is the ostracism against quacks meant for respectable dentists.--ED. D. D. J.]

Question Drawer.

Edited by DR. R. E. SPARKS, M.D., D.D.S., L.D.S., Kingston, Ont.

Q. 32.—Tell a young dentist how always to get a correct bite.

A.—1. By an appliance invented by C. F. Garretson, consisting of a metal plate set to the chin before patient is instructed to bite and before articulating plate is inserted. The plate which is placed to the chin is adjusted by means of a set-screw thus by holding the plate lightly to the chin. The appliance being fastened by two thin metal bars which pass back to the ears, there being a rubber projection on each bar which fits into the ears. On one side a strap is fastened which is passed over the head and fastened to the opposite bar. After getting appliance in position and chin in its natural position insert articulating plate and request patient to close. The jaw cannot push forward without being uncomfortable to patient and displacing the appliance. (2) By instructing patient several times to put the jaw forward as far as possible and then to draw it back to its natural position. After a little practice the patient will understand what you want her to do. Then insert articulating plate and instruct patient to repeat what she had

previously been doing, and when drawn back ask patient to close, and in this way securing a correct bite.

C. P. SHERMAN, Kingston, Ont.

2. The method which I have found most successful is a few words of explanation to the patients previous to biting in the wax. Show them by your own jaw the different positions, and explain that the farthest back position is the one you want. Make them bite up several times before you put in the wax, to make sure that the position is right. Now, when they bite in the wax guide the lower jaw up; just the imprint of the cusps is sufficient; don't allow them to bite too hard as in doing so the lower jaw is apt to slide forward.

E. A. RANDALL, Truro, N.S.

Q. 33.—Give a recipe for a solution to relieve the after-pains of tooth extraction.

A.—1. Dr. T. B. Welch recommends the following:

R Alcohol (best).....	NONO NONO NONO NONO NONO NONO	i
Chloroform		ii
Sulphuric ether.....		vi
Gum camphor		ss
Laudanum.....		i
Oil of cloves.....		ss

Sig.—Apply in socket on pledget of cotton.

2. A potent and reliable remedy for the immediate after-pains of extraction is amyl nitrite. The patient to inhale the preparation about three or four seconds and then remain quiet in the chair about five minutes or until the amyl nitrite has spent its primary force. A single drop of nitro glycerine, one % solution in half a glass of cold water is even better than amyl nitrite, and more lasting in its effects.—*Taken from Western Dental Journal.*

3. Dr. Thomas says for severe pains after extraction syringe socket well with hot water, which will relieve it almost immediately. Dr. Hays recommends adding a little tincture of aconite to the hot water and afterwards dress with campho-phenique.

R. E. SPARKS, Kingston, Ont.

QUESTIONS.

Q. 34.—We often notice on the lingual surface of the lower jaw, prominences opposite the roots of the bicuspid. Generally they appear as one on each side about the size of peas. I have seen them as large as beans. I have never seen them described in anatomy. Are they normal? If so, what are they called? If abnormal what are they, and what causes them?

Q. 35.—In cases of bridge work, where the bite is close and the dummy broad for occlusion, the gum becomes congested, filling up the space left for cleansing. This is particularly noticeable where a dummy is placed between two natural teeth. Can this be prevented? or is there any advantage in leaving a cleansing space where such is likely to occur?

Translations.

FROM GERMAN DENTAL JOURNALS.

By CARL E. KLOTZ, L. D. S., St. Catharines.

GUTTA-PERCHA used for filling is easily spoiled by keeping it in too warm a place. If kept in a solution of table salt it will keep for years.

HEARING RESTORED AFTER TWENTY-FIVE YEARS.—Bennet mentions a case in his practice where a lady, 50 years of age, who had been deaf for twenty-five years, had her hearing restored immediately after the extraction of a number of roots. Among these were the roots of the upper wisdom teeth, which were badly exostosed, and when extracted she felt as if relieved of a pressure which she had felt for a number of years.

AN ANTIDOTE FOR CARBOLIC ACID.—Carelton recommends vinegar. When vinegar is applied to the skin or mucous membrane cauterized with carbolic acid, it will turn the white spots formed on the skin by the acid to the natural color and prevent the formation of a scab. When taken internally it neutralizes the carbolic acid in the stomach, for which reason persons poisoned with carbolic acid are given diluted vinegar to drink before the stomach pump is applied.

ADHÆSOL is a substitute for collodion, over which it has the advantage of being a better antiseptic. This preparation is a clear amber-colored liquid, with a pleasant odor, and is neither toxic nor caustic. It dries in a few seconds on the skin, and is an adherent covering to the mucous membrane. It is prepared as follows: Macerate, Resina Kopae, 350 gm.; Benzœ and Balsam Tulu aa, 30 gm., with a mixture of Ether, 1000 gm.; Al Thymi, 20 gm. for two days, filter and add a-nophthol, 3 gm.

TO NARCOTIZE THROUGH THE EAR.—Dr. Huppe, V.S., wishing to perform an operation on a large dog, and not having sufficient assistance to anæsthetize in the usual way, he injected 10 gm. sulph. ether into the ear of the dog. The effect was instantaneous; the dog shook his head and sat down. A few minutes later he

was perfectly helpless, and the operation could be performed with out any difficulty. Since then Dr. Huppe has frequently anæsthe- tized horses, for which he injected 30 gm. sulph. ether.

TOOTHACHE REMEDY.—Calmus root has been recommended as a preventative and palliative remedy for toothache. Cut the roots into small pieces, put into a bottle and cover with best spirits. Cork and let it stand for 2 to 3 days, then add sufficient water so that the solution will only cause a slight prickling sensa- tion on the jaws. Gargle in the morning, at noon (after meal) and in the evening before retiring. This will relieve toothache, and forms at the same time a preservative of healthy teeth. It will somewhat arrest decay.

INHALATION OF AIR IN COMBINATION WITH NITROUS OXIDE.—Formerly it was considered a mistake to allow the patient to inhale air with N_2O , but now it is looked upon as an improvement. Dr. Braine has a simple arrangement attached to the inhaler where- by he can regulate the admixture of the air. The patient is allowed to inhale the pure gas first, then by turning a screw on the inhaler, air is admitted. Anæsthesia lasts longer and is not accompanied with excitant twitching of the muscles. Nausea or vomiting has never occurred.—*Monatsochrift für Zahnheilkunde.*

PEARSON'S LOCAL ANÆSTHETIC is composed of the following :

Chloroform	12
Tinct. Aconite.....	12
“ Capsici	4
“ Pyrethri	2
Ol. Caryophylli	2
Camphor	2

The camphor is dissolved in the chloroform, the Ol. Caryophylli added, and then the tinctures.—*Zahnteiliches Wochenblatt.*

DISCOLORING OF A CENTRAL INCISOR WITH LIVING PULP. (By J. H. Braddock.)—In examining the teeth of a healthy young man I noticed a remarkable discoloring of the left upper incisor, which otherwise appeared to be sound. I questioned the patient if he had met with an accident with this tooth ; he said that about ten months ago, in playing football he was hit on it and knocked inward, partly dislocating it, he immediately pressed it out again into its proper position, and, with the exception of the discolora- tion, has had no inconvenience from it since. The discoloring was most conspicuous on the cutting edge. I took it for granted that the pulp was dead, and drilled into it for the purpose of removing the decomposed matter, to prevent further complications, but to my astonishment I found the pulp alive. I was now com- pelled to destroy the pulp, and after this was done I had great

difficulty to remove the remains from the canal, as a quantity of secondary dentine had formed in the upper part of the pulp cavity, the lower part of the canal remaining free of it. According to my judgment, the pulp was injured by the blow the tooth received, and through irritation ecchymosis followed, after which secondary dentine was formed. This case is interesting, inasmuch as it shows that discoloring of a tooth is not always a symptom of a dying or a dead pulp.

NEW METHOD OF ADMINISTERING CHLOROFORM.—Dr. Rosenberg asserts that the disturbances of the action of the heart and of respiration in administering chloroform, and also with other anæsthetics, is caused by irritation of the nerve branches of the pituitary mucous membrane, and attempts have been made to prevent this by benumbing the membrane with cocaine. After a test of fifty cases Dr. R. gives the following advantages of this method: 1. The first stage of anæsthesia is less unpleasant, and the patient never struggles against inhaling the chloroform. 2. The stage of excitement rarely occurs, and when it does it is very slight, except in the case of hard drinkers. 3. Only in a very few cases does vomiting occur, and then preceded by only slight nausea. 4. After recovery no unpleasant sensation is experienced. The cocaine is applied as follows: The patient is directed to blow the nose so as to thoroughly free it of mucous. Then he is placed into a sitting position, rather leaning forwards (never in a lying position) and made to snuff one centigramme of powder composed of a mixture of 10 per cent. hydrochlorate cocaine with an indifferent powder. After about three minutes repeat, and immediately commence the chloroform.—*Correspondenz Blatt.*

[I have used a cocaine spray in the nose for the same purpose.—C. E. KLOTZ.]

Abstracts.

Edited by G. S. MARTIN, D.D.S., L.D.S., Toronto Junction.

THE proper way to prevent plaster falling into the throat when taking plaster impressions, is to have it the right consistency and avoid putting too much on the tray.

FOR cementing on bands and crowns, dry the tooth and paint with shellac varnish before applying the cement. This will be found to give durable adhesion. Should the cement dissolve, the shellac will still protect the tooth and there will be no decay under the band. To retain regulating appliances, add a very little powdered pumice to the varnish.—*W. G. Lange, in Cosmos.*

KEEPING the points of contact away from the union of filling and enamel, and the thorough bevelling of all edges constitute, in my opinion, the most important of precautions in cavity preparation.—*F. Schumacher, Stomatological Gazette.*

AFTER-PAINS OF EXTRACTION.—A single drop of nitro-glycerine—one per cent. solution—in half a glass of cold water is potent and reliable, and lasting in its effects. It is also a marvelous benefit in neuralgia and for the bad headaches following dental operations.—*Ed. H. Bowne, in Items of Interest.*

YOU CAN TAKE YOUR CHOICE.—To the question, "Is sensitive dentine an abnormal condition?" the following answers are found in the *Review*: Nays: Dr. Cravens, of Indianapolis; Dr. Guilford, of Philadelphia; Dr. Darby, of Philadelphia. Yeas: Dr. Abbott, of New York; Dr. Andrews, of Cambridge; Dr. Barrett, of Buffalo.

ONE very weak point in crowning is the almost universal use of zinc phosphate for the cementing material. Gutta-percha is so much more reliable and durable as a cement, besides allowing the crowns to be removed upon the application of heat whenever necessary, that it seems strange more operators do not use it in preference to the phosphate cements.—*S. E. Davenport, D.D.S., M.D.S., New York, in Dental Digest.*

WHAT SHOULD BE THE ATTRIBUTES OF THE IDEAL FILLING? --I will enumerate them: 1. Easy to mix; 2. Easy to introduce; 3. Adhesive to walls; 4. Sufficiently plastic; 5. Sufficiently quick setting; 6. Resistance to attrition; 7. Good edge strength; 8. Non-shrinking; 9. Non-expanding; 10. Non-irritating; 11. Non-conducting; 12. Tooth color; 13. Enamel finish; 14. Insoluble.—*J. Foster Flaggs, D.D.S., Philadelphia, Pa., in Items of Interest.*

WHILE in Canada the matriculation which gained entrance for the speaker to the R.C.P.S. in Ontario a short time ago, a college whose curriculum covers a period of five years, and whose graduates are not inferior to those of the best institutions of London and Edinburgh, would to-day deny him entrance to the leading school of dentistry in the same Province. I think these improvements are along the right line—the more intellectual the men found in a profession, the better for that profession. The proper time to develop and train the intellect is before the study of a profession is entered upon. It is to the credit of dentistry, which fifty years ago had not a college graduate, that nearly seven per cent. of her recent graduates are possessed of degrees in the arts and science, and over fifty per cent. hold diplomas of high schools and academies.—*Dr. C. H. Nicholson in Dental Practitioner.*

LEFT CUTTING BURS.—Dr. C. Witthaus, of Rotterdam, advocates the use of left cutting burs as well as the ordinary right cutting, as being necessary to the proper preparation of cavities and root ends. The enamel margins cannot be prepared properly by the right cutting burs, because the burs will jump the margin and mutilate it. The jumping of the bur into the gums can be avoided by having both the right and left cutting burs and using each in its proper place.—*Asst's Quarterly*.

SET CROWNS AND BRIDGES WITH GUTTA-PERCHA.—I set a great many of my bridges and nearly all of my single crowns with gutta-percha. I use Doherty's white base-plate gutta-percha; put that around the pin and around inside the band. This is forced into place while the root is moist so that it can readily be withdrawn and the surplus trimmed away. Then, after preparing the root, dry it and clean it thoroughly, put in a little chloro-percha and set your crown in place. If you have a bridge you can set it equally well.—*Dr. Belyea, International*.

EXCERPTS on treatment of pyorrhœa, found in the *Dental Digest*: Dr. J. A. Freeman, "Do not be in a hurry; give plenty of time for thoroughness." Dr. F. R. Ross, "We must remember that we are working on human tissue, and that the operation is very painful." Dr. G. V. Black, "Practice handling of instruments and where to place them to remove deposits." Dr. Garrett Newkirk, "I would add emphasis to the sterilization of instruments." Dr. E. K. Carpenter, "There is one point—the necessity of working upon one tooth at a time. Dr. E. Mawhinney, "Use a two per cent. solution of trichloroacetic acid before operating." Dr. C. P. Prayn, "It is impossible to do much without education of patients."

PULP DEVITALIZATION IN THE TEETH OF CHILDREN.—One of our great difficulties in dealing with the teeth of children is the devitalization of the pulp when indicated. I have used, and with much success for this purpose, a paste of powdered cantharides and carbolic acid; say about one-twentieth grain of the powder with enough carbolic acid or creosote to make a paste. I know that the use of arsenic for this purpose is justly viewed with suspicion, but my opinion is that it is largely a question of how much arsenic is used. I use arsenic for this purpose in very minute quantities and have had no ill results. The canals of children's teeth should, of course, be cleansed thoroughly and sterilized. I question the use of cotton dressing in these cases, for should the foramen be large, owing to a partial resorption of roots, soft tissues might be impinged upon, and the cotton becomes a source of irritation or worse. I think the safer practice is to use fluid in the canals and oxochloride in the pulp chamber.—*Dr. Darby, International*.

BEFORE the Odontological Society of Western Pennsylvania, Dr. W. A. Lee, Alleghany, Pa., described his method of capping exposed or nearly exposed pulps. The ideal pulp cap should be a disinfectant, an antiseptic and antiphlogistic, and most important of all, a non-conductor of thermal changes. It should fit closely and accurately the surface to be covered, and be firm and unyielding. As a disinfectant nothing is better than pure beechwood creasote. As an antiseptic and antiphlogistic, iodoform has proven best. As a non-conductor gum copal dissolved in sulphuric ether. After removing decay and softened dentine, being careful not to wound pulp, the cavity is saturated with creasote and wiped dry. Iodoform is then introduced, followed by the copal ether varnish a little thicker than cream, dried with warm air blasts. A number of coats may be applied until the tooth is not sensitive to cold air blasts. If exposure is large apply a piece of asbestos paper to the varnish before it is dried, revarnishing over the paper. A thin paste of oxyphosphate should be applied over the cap and allowed to harden thoroughly before any filling is attempted.—*Ohio Dental, April.*

METAL pins for use in the roots of pulpless teeth as anchorage posts may be made of platinum alloyed with iridium, gold alloyed with platinum, or of stiff German silver wire, the latter being, of course, much less expensive but not quite as reliable for the demands in all respects as the two first named. This wire in several different sizes (say Nos. 3 to 7 of bur-gauge) should always be at hand, and before being used a shallow screw-thread should be cut upon it merely for the purpose of giving proper hold to whatever plastic material may be used in connection with it. The writer prefers to select a screw a trifle smaller than the calibre of the prepared root-canal, and cement it in place with zinc phosphate, rather than use a screw slightly larger than the canal, depending upon the thread cut in the dentine by screwing it in as some operators do. What has been said above against the use of zinc phosphate refers, of course, only to its use in locations reached by the saliva. Stiff German silver is not as rigid as the other wires referred to, but will always answer if two roots can be utilized, a pin being placed in each. It is not affected by mercury, nor is ordinary clasp metal—gold and platinum—by the proportions of mercury in amalgam, though pure mercury will sometimes affect it slightly. Stiff German silver has been referred to because there are two varieties of the metal obtainable. The largest round bur used in preparing the root-canal for the reception of the metal pin should be measured in the bur-gauge, and a pin just one size smaller selected for use.—*S. E. Davenport, D.D.S., M.D.S., New York International Dental Journal.*

TARDY ERUPTION.—In 1893 I extracted the six anterior superior teeth for Mrs. C—, of Weston, and inserted an artificial substitute. In May, 1897, the lady called on me and complained that I had left a root of one of the teeth. On examination I found at the median line the point of an erupting tooth coming down so as to throw the artificial denture out of place. It was with some difficulty extracted and proved to be a fully developed cuspid lying in a slanting direction from canine eminence to median line, and having the apical third curved almost at a right angle to the body of the tooth. The lady is over fifty years old.—*G. S. Martin.*

ANÆSTHETIZING OF PULP FOR IMMEDIATE REMOVAL BY CATHIOPHORESIS. (Dr. W. W. Moorhead, Aledo, Ill.)—The method for treating such a case is as follows: The rubber dam being adjusted, the cavity washed out, and sterilized, place a pellet of cotton saturated (but without a surplus, to run around the teeth), with the following medicament in the cavity:

Cocaine	18	gr.
Aconitine	0.1	gr.
Thymol solution, q. s	5	i

To this apply the positive current, turn on fifteen or eighteen volts, and should this not be sufficient to reach the apex make a second application, and remove the pulp immediately.—*The Ohio Dental Journal.*

STERILIZING PUTRID CONTENTS OF PULP CANALS.—Dr. C. H. Rosenthal, of Cincinnati, sterilizes putrid pulp canals by electro decomposition. At a clinic before the Chicago Dental Society recently his method was producing nascent chlorine and driving the same through the pulp canal from positive to negative by osmosis. This was done by placing a saturated solution of sodium chloride on a piece of cotton and attached to the positive pole, which, upon contact eliminated large quantities of free chlorine. The antiseptic qualities of the chlorine, together with the decomposing effect of the galvanic current, he claimed, renders these septic pulp-canals perfectly aseptic and ready for immediate root filling, before removing the rubber dam, claiming it advantageous to do so to obviate the possibility of regenerating the pulp-canal by contact with the saliva, which contains ever-present germs. The canals were filled in the following manner: A piece of orange-wood was whittled down to the size of the pulp-canal, the wood then saturated with a double strength tincture of iodine, and a paste of iodoform and glycerine was then placed on the stick and carried to the pulp-canal and applied with a churning motion; the stick was broken off and left in the pulp-canal, the tooth was then ready for filling.—*Pacific Stomatological Gazette.*

A METHOD FOR TREATING ROOTS OF BADLY DECAYED TEETH.—Dr. J. Austin Dunn, Chicago, gave a clinic before the Chicago Dental Society to show his method of procedure in cases where the tooth is too badly decayed to allow the application of the rubber dam with ease. The cavity is excavated without the dam, flushed with medicaments, the entrance to the canals found and opened, then having at hand small wooden pegs or copper points, the alcohol lamp and Gilbert's temporary stopping, the rubber dam is applied and held down, forcing back dam and gum with a hand matrix. After drying the cavity the pegs are then inserted in the entrance to the canals, and the cavity filled with the stopping, packing it around the pegs. The matrix and points can then be withdrawn, leaving a simple means of access to the canals, and the dam may readily be applied at any time for treatment of the roots. In case a tooth is so decayed that the dam cannot be applied, Dr. Dunn prepares the cavity thoroughly, fills permanently with amalgam around the pegs inserted in the canals. These may be withdrawn before or after the amalgam hardens. In case a tooth is to be crowned, but is too much decayed to allow application of the dam, the root may be prepared and the gold band fitted to the tooth at once, and driven to place. This will permit the use of the rubber dam for necessary thorough treatment.—*Abstract of description in Dental Review.*

Medical Department.

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

TEETH IN RELATION TO THE EAR, NOSE AND THROAT.—Gambati called attention to the importance of not neglecting the teeth in diseases in general, and especially in those of the ear, nose and throat. Disease may affect the development and formation of the teeth. The reverse is also true, a carious tooth or alveolar abscess may develop symptoms that are thought to depend, by the patient, on trouble in the ear, nose and throat. The ear especially is frequently the seat of reflex disturbance that originate from the teeth, although the nose and throat are also sometimes affected in this manner.—*Laryngoscope*, March, 1897.

BLOOD POISONING AFTER TOOTH EXTRACTION.—Dr. Port, of Munich, remarks that, "when we consider the large quantity of micro-organisms which flourish in the mouth, it is extraordinary that dental extractions are not more frequently a source of infection." Dr. Miller's book cites only sixty cases, of which about half the number terminated fatally, while the other half recovered

sooner or later. Death generally occurred from septicemia, pyemia or meningitis. He gives a recent case of a young and vigorous man whose lower molar had been extracted by means of the key. He developed fever and died in four days. The autopsy revealed a large abscess in the neck, the pleural cavities held a large quantity of fetid brown pus, while the pericardium also contained pus. The abscess disclosed streptococci and diplococci, and the latter resembled the salivary septicemic microbe described by Miller.—*Journal of Brit. Dent. Assoc.*

AN INTERESTING CASE OF MEMBRANOUS STOMATITIS.—A case of rather exceptional interest was recorded by Mr. Stanley Colyer, at a recent meeting of the students' Society of the Dental Hospital of London. The patient, a man aged about twenty, had been sent to the Western Fever Hospital, suffering from supposed diphtheria. The membrane was not symmetrical, but was confined entirely to the left side of the mouth, covering the hinder portion of the left border of the tongue, the gum around the lower molar teeth, and the tonsil. The case being unusual, careful bacteriological examinations were made, but in no instance was the Klebs-Loeffler bacillus found. After the patient had been in hospital one or two days it was discovered that he had an abscess in connection with one of his lower molars. The offending tooth was removed, and from that time the membrane began to clear up, and soon disappeared.—*Journal of Brit. Dent. Assoc.*

APHTHA CACHECTICA OR RIGIA'S DISEASE (1881).—According to Prof. F. Fede (*Arch. f. Kinderheilkunde*, Vol. XXI. 5 and 6, 1897) this disease is often met with in the lower regions of Italy, especially in the Province Sannio. It manifests itself as an elevated, gray, pearl-like swelling, 2 cm. wide and $\frac{1}{2}$ cm. thick, always underneath the tongue and on its frenulum. Judging from the fact that the tumor appears, as a rule, after—very rarely before—the eruption of the middle incisors, the author is inclined to attribute it to the friction of the teeth against their alveoli during cutting. He distinguishes three types of the affection: 1. Sub-lingual tumor without complications. 2. Tumor accompanied by general malaise, disturbance of the alimentary canal, cachexia; sometimes, also, tuberculosis. 3. Tumor attended by severe complications, leading finally to death of the child. The histological structure of the tumor is alike in all three types, presenting a hypertrophy and hyperplasia of the mucous membrane, especially of the papillary layer. Old tumors assume the structure of a granuloma. No micro-organisms can be found in stained sections and inoculation experiments prove negative also. The treatment consists in excision of the tumor with consequent cauterization. Complications must be met as they arise.—*Amer. Med. Sug. Bull.*

THE MICRO-ORGANISM OF SCORBUS.—Testi and Bebi, in the *Arch. Ital. di clin. Med.*, ref. in the *Centbl. f. inn. Med.*, 1896, No. 19, p. 503, assert that scorbutus is an infectious disease, and that they have found the micro-organism. With sterilized instruments they removed from the characteristic foci upon the gums small portions of the mucous membrane. These were triturated in a mortar with sterilized, freshly boiled water, and then drops of this fluid were employed for cultures upon gelatin, agar and glycerin-agar. The authors claim to have constantly found a diplococcus, which in some of its features resembles the *Staphylococcus pyogenes aureus*, and which, for this reason, may have heretofore been overlooked. It is said to differ from the *pyogenes aureus* in that this coccus never gave rise to septicemic infection in rabbits and guinea-pigs, but only to hæmorrhages of the skin, mucous membranes and serous membranes. With this organism the authors were able to induce regularly in animals scorbutus-like hæmorrhages. They never observed these microbes in the blood of man or experiment animals. According to them, scorbutus is not a bacteriemia, but a toxemia. The toxic products are taken up from the gums into the circulation, and in this manner produce the characteristic scorbutic dyscrasia. The fact that scorbutic phenomena can be produced by the blood of infected animals as well as with sterile cultures, is looked upon by the authors as proof of this assumption. The microbe of scorbutus described by Babes, the authors believe, is a bacillus of hæmorrhagic septicemia,—*Amer. Med. Surg. Bull.*

MR. J. E. GEMMILL, in London *Dental Record*, June, in an article on the relationship of medicine to dentistry, draws attention to the neglect of the teeth by medical men, as well as to the common ignorance of many dentists in mistaking all affections of the teeth as primarily and wholly due to pathological changes in the teeth themselves. Mr. Gemmill divides his subject into three parts. 1. As to the direct effect of disease and constitution on the teeth. 2. The effect on the economy of want of teeth and dental caries. 3. The direct reflex effects from irritation of the fifth nerve and its connections. The author alludes to various effects of ill-health on the teeth, which, he thinks, are due entirely to constitutional causes evidently unaware of the local manifestations with which most dentists are familiar; and expresses his surprise that Tomes should state, "that caries is an effect of external causes in which so-called vital forces play no part." Mr. Gemmill evidently is many years behind the times in this respect, due, no doubt, to the fact that he is not a dentist. Referring to neuralgic affections of the face, arising from the teeth he remarks: "These conditions are so well understood, that the first thing a physician does is to ask the patient, 'Have you any bad teeth?' and getting a negative answer, he proceeds to

treat the neuragalia, and if it yields readily, then he presumes it is not from the teeth. But there are numbers of cases which I am sure you, in dental practice see daily of neuralgia, from a curved wisdom tooth, or decayed stump lying under the gum, which only the trained dental surgeon can diagnose ; and I would like medical men to recognise this fact and have a dentist's opinion on the mouth early and so save much suffering." The author cites many cases of reflex nervous affections ; wry-neck, epilepsy, paralysis of arm ; blindness, deafness, etc., directly due to pathological conditions of the teeth, and concludes as follows: "The more widely the medical profession recognises the dental practitioner as a brother practitioner, practising a special branch of medicine, the better will it be for the patients entrusting themselves to him."

AT the May meeting of the Odontological Society of Great Britain Mr. Baldwin read notes on a case of unerupted maxillary third molar causing inflammation in the substance of the cheek simulating epithelioma. The lesion was on the cheek inside the mouth, and presented all the appearances of epithelioma. A surgeon had sent the patient to the dentist to examine the mouth for any local cause of the trouble. The cheek in the centre, over a space as big as a crown piece was hard throughout. The external skin was bound down, immobile and slightly red ; mucous membrane inside was hard, modular and fissured ; one large central fissure was raw-looking, granular, and broad everted edges, and the induration of the whole was gristly and characteristic of epithelioma. From this mass could be felt an ill-defined infiltration extending upwards and connecting it with the maxillary bone. Appearances were exactly those of epithelioma, but upon following grounds Mr. Baldwin cherished the hope that the real condition was not such : 1. He had the patient under observation about three months before ; had then noticed nothing unusual about the mouth, whereas now there was what looked like an epithelioma of many months' standing ; 2. That the history of the lesion did not tally with that of epithelioma, in that the first symptoms had been severe pain and immense swelling of the side of the face, the onset of which had been only about a fortnight before ; 3. That there were no lymphatic glands to be felt in the submaxillary region. A local medical practitioner had treated the swelling by twice opening into it with a lancet from inside the mouth in centre of cheek, but no pus had been found. The incisions accounted for the deep fissures in centre of the mass when first seen, but not for the fact that the fissure was still unhealed and presented raw and granular surfaces and edges which were indurated and everted. A fortnight later, the surgeon asked Mr. Baldwin to assist him in an examination under an anæsthetic, when the cheek was found distinctly better ; parts more

mobile, the track of induration extending upwards towards the maxilla was less easy to be felt; the mass itself was smaller and softer. Attention was drawn to what appeared to be a small stump, just showing as a tiny point of the extreme back of the maxillary process on the left side. On examining this with a pointed probe, the characteristic feeling of enamel was at once recognized, and a buried third molar diagnosed, which was extracted. In two days' time the improvement was very marked, and in course of a few weeks all the appearances suggestive of epithelioma had vanished. The existence of the focus of inflammation in the centre of the cheek, while the cause lay high up in the maxilla, is explained by the deflection of the inflammation downwards and outwards from the root of the tooth of the attachment and the buccinator muscle to the maxilla. The root of this tooth was well above this attachment, and the products of inflammation travelled down into the cheek from the root of the tooth by the course indicated, and then to have occasioned acute inflammation in the centre of the cheek. The case is of great interest as showing the completeness with which a simple inflammation sometimes may simulate epithelioma, and as exemplifying the advantage which a correct diagnosis may in such a case entail. Mr. Stover Bennett remarked that unfortunately it was not always the case that dental surgeons were called in to give the aid of their expert judgment. In many cases they might render very great assistance. The usual course of procedure in such a case would have been to have diagnosed it as one of epithelioma and the patient's friends would have received the terrible news and some severe operation would have been resorted to. The result would have been that when the operation was in progress, the error of diagnosis would be recognized, but then matters to a great extent would be too late.—*Proceeding of Odontological Society of Great Britain.*

Proceedings of Dental Societies.

EASTERN ONTARIO DENTAL ASSOCIATION.

The eighteenth annual meeting of the Eastern Ontario Dental Association was held in the parlor of the Rossmore Hotel, Cornwall, Tuesday and Wednesday, July 6th and 7th, 1897. The President, Dr. Ira Bower, in the chair.

The following members were present: Drs. Ira Bower, J. C. Bower, Geo. Hutchison, W. R. Green, S. S. Davidson, G. E. Hanna, Ottawa; Dr. A. H. Weagant, Smith's Falls; Drs. R. E. Sparks, J. H. Clark, D. A. Black, Kingston; Drs. D. V. Beacock, W. Brace, Brockville; Dr. V. H. Lyon, Ottawa; Dr. H. B. Weagant, Morris-

burg; Dr. E. R. Howes, Vankleek Hill; Drs. W. B. Cavanagh, J. A. Liddell, Geo. H. Weagant, Cornwall.

The following Dentists were admitted to membership: Drs. G. Emmett, Morrisburg; W. McGill, Dixon; W. D. Knight, Cornwall.

The Treasurer's report showed a surplus.

The following were elected officers for the ensuing year: President, A. H. Weagant, Smith's Falls; Vice-President, D. A. Black, Kingston; Secretary-Treasurer, Geo. H. Weagant, Cornwall.

Dr. V. H. Lyon read a very interesting paper entitled "Elements of Dentistry." (See page 240.)

The discussion was opened by Dr. Sparks, who was highly delighted to hear such a paper from one of the younger members of the profession. He admired the paper immensely. It was a matter of congratulation that the rising members of the profession should have the advantages they enjoy at present. When he (Dr. S.) began the study of dentistry he was obliged to go outside the country to obtain his instruction. Speaking of the new College, he said that some dentists had made the remark that it was a detriment to the profession, inasmuch as it would lead to overcrowding. The paper shows that we should have a broader view.

Dr. Hanna said that in reference to the reading room in connection with the college he might say they already had a good reading room, well patronized by students, and also the nucleus for a first-class dental library. As to the gymnasium, the building and equipment of one was had in contemplation. Regarding the morals of the profession, his idea was that our profession was more free from immorality—especially intemperance—than any of the other professions.

A letter from Dr. C. A. Martin, Ottawa, was read by Dr. S. S. Davidson. (See page 239.)

Dr. Green had a "question box" to submit for discussion.

The following were some of the questions: 1. "Can anything be done, by systematic treatment or otherwise, to improve the quality of the teeth of the rising generation?" 2. "What do you consider the best and quickest method of reducing facial swelling?" 3. "Are metal clasps preferable to vulcanite, where clasps are necessary?" 4. "How would you proceed to fill devitalized temporary teeth?" 5. "In removing the pulp of a tooth that has been treated with arsenic, we frequently find a small remnant of the nerve extremely sensitive. How can we remove this with the least pain to the patient?"

To the first question Dr. Hanna said the quality of the teeth of the rising generation might be improved if we could return to the conditions of life previous to the beginning of tooth caries. This, he admitted, was hardly practicable.

Dr. Howes believes there are many things which can be done to improve the quality of the teeth, if we could only induce the patients to follow our instructions. There is the difficulty.

Dr. G. Weagant said that Dr. J. G. Adams, of Toronto, in his paper which would be read to-morrow, would likely point out the only practical solution of this problem.

In answer to the second question, Dr. S. S. Davidson gave the following method: Open cavity in tooth and excavate. Open pulp chamber and thoroughly clean canals, using creosote as a dressing. Then give the following internally:

R Dovers powder.
 Potass. Nit..... ā ā 2 grs.

Sig. Take at bed-time, followed by purgative in the morning, such as:

R Magnesia Sulph 3 drams.
 Pot. Bi. Tart..... 2 drams.
 Aqua Menth. pip..... 2 ozs. .

Sig. Take in water upon arising. This treatment he has found very effective, rarely requiring any external applications.

Dr. V. H. Lyon gave the following as his method: Free vent to the matter; administration of saline purgatives and external applications frequently, if swelling is great, of hot, strong solutions of acetate of lead, if swelling not very marked then apply continuously, ice and compressions.

The third question as to clasps brought Dr. Sparks to his feet. Dr. Sparks says, "I do not use clasps as much as I used to. I always preferred metal, and considered that the better the clasp fits the contour of the tooth the less injurious. I found cases, however, where the teeth decayed rapidly under well contoured clasps made of gold. I heard Dr. Bonwill, of Philadelphia, say he did not want a clasp to fit the contour of a tooth—that he considered a flat band clasp preferable—that the less surface in contact with the tooth the better. I heard Dr. Land, of Detroit, declare that he would not clasp a tooth unless he could first cap it."

Dr. A. H. Weagant prefers the metal clasp, as he usually finds rubber clasps clumsy and unsightly.

Dr. Howes spoke of clasps causing teeth to decay, especially when made of rubber. This he thinks due to uncleanliness.

Dr. G. Weagant prefers metal clasps made of wire formed in the shape of a loop. In this way very little of the tooth is covered, consequently more cleanly.

The next question in reference to filling devitalized temporary teeth, was very thoroughly discussed by a number of the members present, and it was decided that it is best to proceed very much in the same way as with adult teeth.

In answer to the fifth question Dr. J. C. Bower said that after the pulp portion is removed and you find the remaining branches sensitive, carry with a specially prepared probe—one made from piano wire, reduced to a very fine tapering point—made so by filing and afterwards polished very smooth with fine sandpaper, a preparation of the following formula :

Alcohol	1 oz.
Acid tannic	1 oz.
Creosote	2 drams.

Good results will be found almost immediately after it is applied. It can be worked up the canals without much pain to the patient. If one or two treatments should fail, examine the point of treating instrument and see if it is very sharp and fine ; pass it heroically to the end of canal. If this be done in a quick movement, very little pain will be experienced.

Dr. Ira Bower read the retiring president's address.

Brockville was chosen as the next place of meeting, and the meeting was adjourned until next morning at eight o'clock.

The meeting opened at 9 p.m., July 7th, when the newly-elected officers were duly installed, Dr. A. H. Weagant assuming the chair.

Dr. Hanna brought in his report of the transactions of the R.C.D.S. during the last year.

It was moved that a vote of thanks be tendered Dr. Hanna for his able report, and the careful manner in which he has looked after our interests at the board.

Dr. D. V. Beacock read an interesting and able paper entitled : "Think for Yourself."

In the afternoon the members of the convention were entertained by the local dentists to a trolley ride through the town and to the St. Lawrence Park, where they carried on their proceedings in the Pavilion. Invitations had been issued to a number of citizens interested in educational matters to hear a paper on "The Systematic Examination of School Children's Teeth," by Dr. J. G. Adams, of Toronto. Several availed themselves of the opportunity, and all who did so were much impressed with the importance of a matter which had previously almost entirely escaped their attention.

AN IMPORTANT SUBJECT.

Dr. Adams gave some interesting information, the result of twenty-five years' special attention to the care of children's teeth. He has devoted much of his time and considerable money to provide the poor of the city of Toronto with dental attendance, having established a dental hospital for the children of the poor, and also induced some of his fellow-practitioners in the city to undertake the examination of the teeth of very poor families free of

charge. He said he had examined the teeth of thousands of children himself, and found that an exceedingly small percentage had as good a set of teeth as the average man of fifty years of age had to-day. The teeth of the present generation were not nearly so good as those of the preceding one. This deterioration could only be arrested by compulsory examination of the teeth of school children and prompt attention to the first appearance of decay. He described the danger of the transmission of terrible diseases through the use of a common drinking cup in the Public Schools. The mouths of many children of even well-to-do people were frequently found in a most disgusting state from lack of proper attention to the teeth. It was to the foul gases emitted from such that much of the sickness of children was attributable. The school rooms were turned into pest holes, and no one suspected the cause. The trouble was not by any means confined to the children of the poor. Those who could well afford to have their children's teeth attended to were in many cases quite ignorant on this point. In many cases teeth were allowed to decay in the belief that they were only first teeth and would be replaced by others. There was too much ignorance on this subject. Even physicians were often astray in this connection. He quoted several instances of intense suffering caused by the wrong treatment of ulcerated teeth. England was waking up to the importance of this matter, and several dental hospitals had been established in that country. By taking the trouble in time the teeth could be kept in good condition at trifling cost. It was delay that necessitated an expensive remedy. His proposition was that a Dental Health Officer be appointed for every school, to make a thorough examination of the teeth of all the children—except such as presented certificates from their family dentist—and where any treatment was necessary to send a report to the parents of the child requiring it. It would be necessary to have dental hospitals in the cities, where the work could be done for the poorer classes at a cheap rate. In small towns and villages the dental inspector could possibly be arranged with to do this work in addition to making the examination. The examination need not interfere with the work of the school. He had examined the mouths of as many as one hundred and fifty children in one hour. He pointed out the many benefits that would follow the proper care of the teeth of the rising generation, and said his suggestion had received the endorsement of the Toronto Board of Health, the principals of the Toronto Public Schools and a host of others.

Dr. Adams was warmly applauded on resuming his seat.

Dr. Weagant, the president, heartily endorsed Dr. Adams' views and said it would be well if parents could be enabled to read the excellent advice he had offered.

Dr. Sparks also spoke highly of the service rendered to the Convention by Dr. Adams, and suggested that a dental department should be added to general hospitals.

Dr. Adams said it might be found to work. He thought the ladies might take up this matter.

Dr. Beacock said the suggestions offered by Dr. Adams were most valuable. His description of the danger resulting from carelessness in regard to children's teeth was not a bit overdrawn.

Dr. Hanna recognized the necessity for the systematic inspection, but thought it could only be secured through legislative action making it compulsory.

Dr. Ira Bower strongly endorsed Dr. Adams' views.

Dr. Alguire, one of the leading physicians of Cornwall, was invited to speak, and complimented Dr. Adams on the good work he is doing. He was aware of the great deterioration of the teeth of the present generation, and if they did not do something to stop it they would soon become practically toothless. He thought it was of the greatest importance that the rising generation should be educated to see the necessity of taking the precautions suggested by Dr. Adams.

Dr. Graveley, another leading medical practitioner of the town, endorsed Dr. Alguire's remarks. He thought Dr. Adams' suggestions were most valuable.

Mr. D. Monroe, secretary of the Public School Board, and Mr. Gibbens, of the *Standard*, followed on the same lines, expressing regret that Dr. Adams' paper had not been heard by all the people of the town who have children at school.

Dr. J. C. Bower and Dr. Cavanagh also spoke briefly of the value of the suggestions made.

Dr. Hanna said they should endeavor to secure the endorsement of the Ontario Board of Health. If they could do this the dental and medical profession would do the rest. He concluded by moving a vote of thanks to Dr. Adams for his address, making a graceful acknowledgment of the valuable service he has rendered in connection with the subject under discussion in the past twenty-five years.

The motion was seconded by Dr. Beacock and carried by a standing vote.

The company then partook of refreshments, on the invitation of the Cornwall members of the profession, after which Dr. R. E. Sparks, of Kingston, read an interesting paper on "Economy in the Dental Office."

The business of the convention was then brought to a close; the discussion of Dr. Sparks' paper being laid over till next year.

Dominion Dental Journal

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TALL WRITING.

Many readers of our journals will never forget, and to use a Hibernicism, most of them will never remember, the word-coining and bewildering language used by the worthy and wise Dr. W. H. Atkinson. He has had feeble imitators, who could be tolerated if they had half his genius; and even when some of them have something to say worth saying, they struggle to wrap their thoughts in such obscure language, that they might as well talk Syriac. In one of our American exchanges we find such a lot of nonsensical rot of this sort, that one would want the patience of Job, and the prospective age of Methusaleh to understand it. Here is a specimen tit-bit: "This vis-plastrix of organic composition is a sovereign faction in all promethean display, though of such subtle yet positive character, that its realms are shunned and neglected through fear and dread of incomprehension by those who have wandered by aid of the Diogenesic lamp through the mysterious labyrinths of this obscure primogenial phase, and they have at last failed to hand out to the hungry student that pabulum of mental nourishment for which our souls do most thirst and our lives grow weary and waning under the dismal aureola of savantic despoil."

We hope the author will understand us, when we venture to remark, that the spinosity and offuscation of such stultiloquence is simply amphibological.

THE COUNTRY "TRAMP."

He is generally an ignoramus, who slipped into the profession in the dark ages of dentistry, when men, like him, did odd jobs about the villages, swapping horses, digging drains, peddling, or pulling teeth, whichever came first. Now, by virtue of the early Act of Incorporation, which put honest and dishonest men on the same legal level, he is an L.D.S. He revels in the rights his license gives him, and while others keep pace with progress, and have shown an honorable ambition and self-respect, he is still the same mean peddling "tramp." He goes from door to door, with his box in his hand like a Syrian peddler, begging you to let him extract your teeth, which is his chief accomplishment, and offering you his disfiguring substitutes "below cost." He is not only thoroughly dishonest, but he is a libeller of other practitioners, whose education and honesty he takes as personally insulting. We cannot apply these remarks from personal knowledge to anyone outside of the Province of Quebec. But whose head the cap fits may wear it. The existence of such men justifies any action the profession can take to protect country people from this imposture. They are the butchers of their patients, and the botches of the profession.

A HINT TO OUR SOCIETIES.

We do not like making complaints, but we may as well be frank. We have seven Provincial Societies in Canada, and we rarely, without some personal persuasion, get notices of the meetings in time to announce the dates and the programme before they occur. It might be a good plan to appoint some one in each Society who would be responsible for this simple duty, so that the papers read, and the proceedings could be forwarded within a day or two after the meetings are over. It does not speak very well for our Societies, that the editor of the JOURNAL has to depend largely upon the reports in the daily press. We need to take a lesson from our brethren over the border in this matter. The profession generally like to know what goes on, and it would be very pleasant to us to be helped in this way.

THE STRENGTH OF UNITY.

The American Dental Association and the Southern Dental Association will meet together at Old Point Comfort, August 3rd. The meetings will be of unusual interest, as an effort is to be made for the union of the two Associations. We Canadians, as dentists, are always kindly treated by Brother Jonathan, and we will gladly welcome the union of the two representative societies.

EDITORIAL NOTES.

DR. SMITH, of Cornwall, is one of the Bisley team this year. The volunteer force of Canada has many dentists in its ranks. Most of them are crack shots.

"YOURS is a very important profession," said the Queen to Sir Edwin Saunders, "for while some require the services of the oculist and the aurist, almost everyone needs the services of the dentist."

IT IS poor economy to use old or poor burs. We know an excellent operator who lost half his practice in this way. Both he and his patients suffered for it. One of the wisest investments in the operating room, is a good dental engine run by a motor, and a full equipment for the front and back action.

THE epidemic of quackery which started a year or two ago in Toronto and Montreal, and which extended to the smaller cities and towns, is exhausting itself; but, of course, without proper precautions it is apt to return. The sheriff has disposed of three cases in Montreal, and public opinion will likely settle the smaller fry. When the reaction comes in Ontario, it will, we hope, make a clean sweep. Towards this consummation, every licentiate who has professional and self-respect should lend their aid.

READ every advertisement in the JOURNAL. They change. You must admit that you get a lot of information out of the advertisements, and much more out of those in a journal which is the advertising organ of many rather than of one. We do not insert quack or fraudulent advertisements at any price. We lose money in this way. But we protect the profession. No matter if you have read the advertisements before; read them again. Advertisers will always be glad to give you more information than they can supply in the advertisements. To keep up with the times, you must keep up with the advertisements.

IN *The General Dispensatory*, being a translation of the Pharmacopæias of the Royal College of Physicians of London and Edinburgh, published in 1753, there are many curious views of the *materia medica* of the period, especially those in use for odontalgia. The use of figs externally for "taking away swelling and inflammations of the gums" is qualified by the recommendations to apply them "in the mouth," not on the cheek. Cloves "being put into a hollow rotten tooth with a bit of cotton cures the toothache." Cinnamon, "if put into a hollow tooth with cotton wool cures the toothache, by drying and burning the nerve"

Post-Card Dots.

23. How can I sterilize rubber tubing? (L.A.)

Use dry heat: raise temperature gradually to 149° C. (284° F.) If the tubing is attached to any instrument and cannot easily be detached, after the dry heat process, place in pulverized talc, previously sterilized. Avoid using the rubber-bulb syringe, as some do (!) for cleansing abscesses. This syringe may be made a positively filthy and dangerous instrument.

24. Have we any special rights in the courts in testifying as dental experts? (T.C.)

A registered L.D.S. has the same privileges and exemptions as are conferred upon physicians and surgeons. Previous to the passing of the acts in Ontario and Quebec, dentists were "taxed" in giving testimony at the same rate as mechanics, but to-day they enjoy the same privilege as physicians.

24. Do I understand that the policy of the DOMINION DENTAL JOURNAL is to frown down all forms of professional advertising in the public press? (P.D.)

This question proves that you have not read what we have repeatedly written on the subject. Young men beginning practice need to advertise, and even established practitioners may need the use of the public press, but no one but quacks, and their imitators, find it necessary to pretend that they have superior or monopolizing methods. You may need to advertise. But you never need to lie. It would be very easy indeed to counteract the evil done by the quacks, if some such movement is actually carried out as is referred to in our last issue (see pages 203, 230.)

25. What is the last edition of *Tome's Dental Surgery*? (L.M.)

The 4th, revised and enlarged by his son, Chas. S. Tomes, just published by J. & A. Churchill, London.

26. Is there an Irish branch of the British Dental Association? (S.)

Yes, and very flourishing. The proceedings appear regularly in the pages of our valued contemporary, the *Journal of the British Dental Association*, published by Balliere, Tindall & Cox, 20 King William St., Strand, London.

27. Can you give me the names and addresses of the dental journals published in England? (C.B.)

British Journal of Dental Science (Vol. 40) published by J. P. Segg & Co., 289 Regent St. W., London: 14s. sterling per year.

The *Dental Record* (Vol. 18) published by the Dental Manufacturing Co., 6 Lexington St., London W., 7s. 6d. per annum. The *Journal of the British Dental Association* (Vol. 18) published for the Association by Balliere, Tindall & Cox, 20 King William St., Strand, London. 7s. per annum.

28. Who invented the dental engine? (T.)

A Scotchman, Mr. Nasymith, of steam-hammer fame. It was, however, very much improved in the United States.

29. Are the dangers as great in connection with the use of the Roentgen rays in dental as in general surgical practice? (S.A.)

It is said by experts that they are not, on account of the fact that the exposure is not so prolonged. At a late meeting of the Irish Branch of the British Dental Association, Mr. T. Stack drew attention to this fact, and quoted instances where the use of the rays enabled the operators to diagnose cases in a way that was otherwise impossible. A ten minute's exposure is sufficient.

Obituary.

DR. SAMUEL J. HAYES.

Dr. Samuel J. Hayes died at his home in Pittsburg, Pa., June 10, 1897.

Dr. Hayes was born on a large farm near Johnstown, Pa., June 22, 1833. He entered college when about eighteen years of age, paying his way through a course of study principally by teaching. Subsequently he finished his training with a course of theology and served in the pastorate for several years, being considered successful both in the denomination of United Brethren and the Baptist. In consequence of a severe bronchial affection, he was compelled to turn from his chosen profession and took up the study of dentistry, which he followed during the remainder of his life, about thirty years. The defects of anæsthetic agents in general and the crude condition of the science itself early attracted his notice and he thereafter devoted himself to the development of this art. In his numerous writings and lectures before schools and associations, both medical and dental, he advocated and sought to establish the bedrock principles of the science, and is considered an eminent authority on the subject, his definitions for anæsthesia and asphyxia being so clear and forcible that they are accepted as standard. By his researches and his invention known as "The Hayes Process of Anæsthesia," a means has been given the professional world of producing a true anæsthesia free from peril to operator or patient.

This process is now widely known and used in the United States and, to some extent, in foreign countries.

At the time of his death, Dr. Hayes was editor and proprietor of *The Dental and Surgical Microcosm*, a journal devoted to the interests of the dental profession and fearlessly advocating the principles of the art and science of anaesthesia as they were opened up and established by him. He had in preparation a book on the subject, which failing health compelled him to defer and which is not yet completed.

New Inventions.

THE INDIA RUBBER COMB COMPANY.

Attention is called to the advertisement in this issue of the old established firm, "The India Rubber Comb Co., of New York," who have made for the S. S. White Dental Manufacturing Co., their "Bow Spring" and "No. 1 improved" for more than twenty years, have now entered the market and offer direct to the dentists their manufacture of dental gums at manufacturers' prices. In addition to the flexor dental gum, original "Bow Spring," and light red, original "No. 1 improved," the company offer maroon, jet black and pink gums, all of which are guaranteed to give perfect satisfaction. Many testimonials are received daily by them as to the quality and general satisfaction of the pink gum, which, although not quite as strong as the English gums, it is excellent for the purpose. Full weight of rubber is delivered. Weight of the cloth and packing is not charged as rubber, as is frequently done with other rubber in the market.

The statements of the Rubber Comb Co., which was organized in 1851, are absolutely true, and can be depended upon. Their rubber dam will be found to be as good as any in the market. All the dentists should appreciate the advantages derived from being able to buy direct from the manufacturers.

DENTAL PRACTICE FOR SALE in one of the best
 locations in the city of Hamilton, 17½ King Street
 East. Office recently fitted up. Apply S. Z., 17½ King
 Street East, Hamilton, Ont. ❀ ❀ ❀ ❀ ❀ ❀